CHINA FINANCIAL MARKET DEVELOPMENT REPORT

2023

PBOC Shanghai Head Office
China Financial Market Development Report Committee

中国金融出版社

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Appendix I & II:				
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Box 8:	HUANG Shuojun			
Box 9:	WANG Xi TIAN Sen			
Box 10:	LIU Ting			
Box 11:	WU Guanhua			
Box 12:	ZHAO Lingxiao			
Column 1:	HE Fang			
Column 2:	LIANG Mengxuan			
Column 3:	ZHAO Yaoxi	MENG Meng		

Contents

Chapter I Overview

In 2023, global economic growth demonstrated resilience, with a slow overall recovery across various economies. The international financial markets experienced significant volatility, and the interest rate hike cycle in major advanced economies approached its conclusion. Against the backdrop of the complex and severe international situation and in the face of the arduous task of pressing ahead with reform and development while ensuring stability at home, China's economy maintained stable growth, with its quality and efficiency effectively enhanced. The financial market steadily scaled up, market prices fluctuated, high-level two-way opening-up continued to broaden, institutional development was consistently strengthened, market risks were prudently mitigated, and the quality and efficiency of the financial sector to serve the real economy were further enhanced.

1.1 The economic and financial environment for China's financial market development in 2023

1.1.1 Global economic and financial situations

1.1.1.1 Resilient economic growth globally

(1) All economies saw a slow economic recovery

In 2023, the global economy was resilient, but growth momentum weakened. The US economy maintained stable growth overall, with real GDP growing by 2.6 percent year on year, and GDP in each quarter at an annualized quarterly rate of 2.2 percent, 2.1 percent, 4.9 percent and 3.3 percent respectively. Although the GDP in Q4 saw a decline compared with that in Q3, it remained at a relatively high level, increasing the likelihood of a soft landing for the economy. In contrast, Europe's economic performance was sluggish, with the Eurozone's GDP in each quarter at an annualized quarterly rate of 1.3 percent, 0.6 percent, 0 percent, and 0.1 percent respectively, all significantly lower than the year-on-year growth rates from the same period last year. Japan's economic growth slowed down, with real GDP increasing by 1.9 percent year on year. The annualized quarterly rate of GDP in the first two quarters was 5.0 percent and 3.6 percent respectively, and it shrank by 2.9 percent in Q3, which was in sharp contrast to the recovery trend in H1 2023. The annual growth rate of some emerging markets and developing economies was slightly better than that of advanced economies. In 2023, Russia's real GDP growth registered 3.6 percent, exceeding market expectations, but due to the depreciation of the ruble, GDP fell from USD 2.24 trillion in 2022 to USD 1.99 trillion.

India's GDP grew by 7.7 percent year on year, the fastest growth rate among the world's major economies, and the growth rate exceeded 8.0 percent for three consecutive quarters. The GDP of Brazil and South Africa grew by 2.9 percent and 0.6 percent year on year respectively. Brazil's real GDP growth was the same as that of the previous year, and South Africa's GDP growth slowed down by 70.0 percent from 2.0 percent in 2022 (see Figure 1.1).

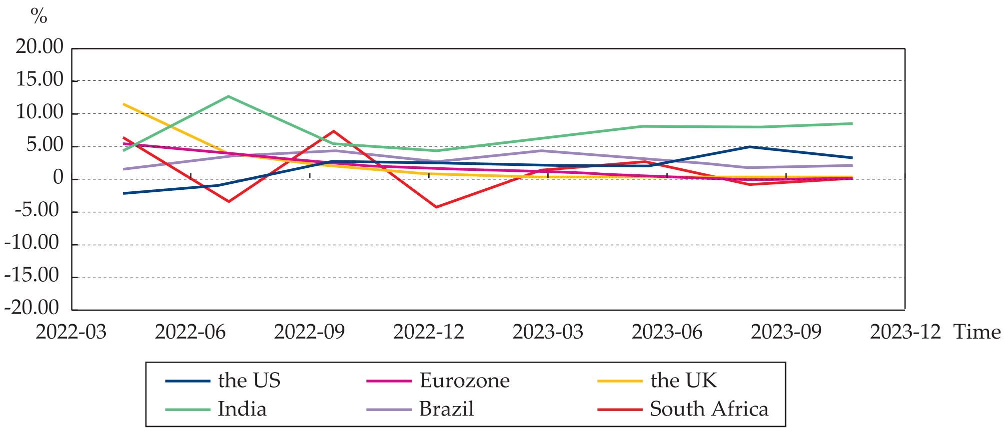

Figure 1.1 Economic growth rates of major economies from 2022 to 2023 (YoY for the current quarter)
(Source: Wind)

(2) The growth of global trade contracted slightly

In 2023, the value of global trade posted USD 31 trillion, down 3 percent from 2022, mainly due to sluggish demand from developed countries and weak trade in East Asia and Latin America. Specifically, the value of trade in goods stood at USD 23.4 trillion, a year-on-year decrease of 6 percent; and the value of trade in services posted USD 7.6 trillion, up 8.6 percent year on year. In terms of trade types, the economic slowdown had a greater adverse impact on trade in goods than on trade in services. In Q4, the imports and exports of trade in goods in most major economies decreased compared with the previous year's level, and most of the imports and exports of trade in services showed growth. As for different economies, in 2023, the imports and exports of developing countries fell by about 5 percent and 7 percent respectively; and the imports and exports of developed countries decreased by about 4 percent and 3 percent respectively. China and the United States (US) reported a total export-import volume of USD 5.94 trillion and USD 5.19 trillion respectively, accounting for 24.8 percent and 21.6 percent of the world's total respectively.

(3) Global foreign direct investment showed a downward trend

Global FDI generally grew in 2023 as fears of an economic recession gradually subsided in early 2023 and financial markets performed well, but economic uncertainty and high interest rates also affected global investment. Among developed countries, the US, the largest beneficiary of FDI, saw a 3 percent decrease in capital inflows in 2023. Net FDI in the EU jumped to USD 141 billion from -USD 150 billion in 2022, mainly due to large capital inflows from the economies of Luxembourg and the Netherlands. Excluding these two countries, the inflows into the rest of the EU actually decreased by 23 percent.

(4) Commodity prices diverged

In 2023, the global oil price measured by the US West Texas Intermediate (WTI) witnessed an overall decline, dropping from USD 76.93 per barrel at the beginning of the year to USD 71.65 per barrel at end-2023, with an annual decrease of 6.9 percent. Crude oil prices in H1 2023 seesawed ever lower, with prices falling significantly in late March and early May, reaching USD 69.26 per barrel and USD 68.56 per barrel respectively. Crude oil prices in H2 this year first rose and then fell, rising from around USD 70 per barrel at end-June to USD 93.68 per barrel at end-September and then slowing down continuously. The Food and Agriculture Organization (FAO) Food Price Index fell from 143.7 in 2022 to 124.0 in 2023, a decrease of 13.7 percent. The prices of most nonferrous metals went down. At end-2023, the spot prices quoted by the London Metal Exchange (LME) of aluminum, zinc, lead, and nickel were USD 2,335.5 per ton, USD 2,640.5 per ton, USD 2,031.0 per ton, and USD 16,300.0 per ton respectively, down 1.1 percent, 12.7 percent, 13.0 percent, and 46.4 percent from end-2022 respectively. The spot prices quoted by the LME of copper and tin reached USD 8,476.0 per ton and USD 25,175.0 per ton respectively, up 1.1 percent and 1.5 percent respectively. The prices of international precious metals went up as a whole. The price of London spot gold continued to rise in March and October, reaching USD 2,062.4 per ounce at end-2023, up 13.8 percent from end-2022.

1.1.1.2 International financial markets experienced sharp volatility

(1) The interest rate hike cycle in major advanced economies approached its conclusion

In 2023, the Federal Reserve (Fed) raised interest rates four times by a total of 100 basis points (bps), and hiked the federal funds rate to a target range of 5.25~5.5 percent from 4.25~4.5 percent at the beginning of the year. Three consecutive rate hikes were suspended from September to the end of the year. At the same time, the Federal Reserve continued to shrink its balance sheet as planned, with a monthly cap of USD 60 billion in treasury bonds and USD 35 billion in mortgage-backed securities (MBS). The European Central Bank (ECB) raised rates six times in 2023 by a total of 200 bps. It began to shrink its balance sheet from March by reducing its holdings by an average of 15 billion euros per month before end-June and stopping the reinvestment of principal from maturing securities under the Asset Purchase Program (APP) from July. The Bank of England (BOE) raised rates five times by a total of 175 bps to 5.25 percent in 2023, and two consecutive rate hikes were paused in Q4. The central banks of Australia, New Zealand, Canada, and South Korea raised rates five times, three times, three times, and one time respectively, with a total increase of 125 bps, 125 bps, 75 bps, and 25 bps respectively.

(2) The US dollar index fluctuated downward, and the currencies of emerging economies generally weakened

In 2023, the US dollar index witnessed increased volatility. Throughout the year, except for the yen, the currencies of major advanced economies appreciated against the US dollar. In addition to the Brazilian real, emerging economies' currencies generally depreciated against the US dollar. The US dollar index generally fluctuated and strengthened in the first three quarters of 2023, and fell sharply from Q4. It closed at 101.38 at end-2023, down 4.5 percent from end-September and down 2.0 percent from end-2022. The exchange rates of the euro and the pound rose against the US dollar. The two currencies appreciated by 3.1 percent and 5.3 percent respectively against the US dollar, and the yen depreciated by 7.0 percent against the US dollar. The currencies of most emerging economies weakened against the US dollar, with the Chilean peso, South African rand and Argentine peso depreciating by 2.8 percent, 8.6 percent and 7.8 percent respectively against the US dollar, and the Brazilian real appreciating by 8.9 percent against the US dollar.

(3) Global bond markets were differentiated amid fluctuations

In 2023, the United States and Europe successively suspended interest rate hikes, Japan fine-tuned its yield curve control policy, and monetary policies of major economies around the world were facing a shift. The interest rates of treasury bonds in advanced economies of the US, Japan and Europe experienced an overall trend of first rising and then falling, but the specific influencing factors and fluctuation ranges were not the same. At end-2023, the US economy grew faster than expected, driving the interest rate on 10-year US treasury bonds to exceed 5 percent in mid-October, a new high in nearly 16 years. As inflation fell beyond expectations and expectations for interest rate cuts intensified, the interest rate on US treasury bonds turned sharply back. The yield on 10-year US treasury bonds registered 3.88 percent, basically the same as that of end-2022. The yields on 10-year treasury bonds in Germany, France, and the United Kingdom (UK) fell to 2.02 percent, 2.56 percent, and 3.62 percent respectively at the end of the year, down 51.0 bps, 55.5 bps, and 17.9 bps respectively from end-2022. The Bank of Japan (BOJ) maintained the short-term policy rate at -0.1 percent, but increased the flexibility of yield curve control (YCC), with 1 percent as the reference ceiling for yield fluctuations, and kept the yield closing at 0.65 percent at the end of the year, up 20 bps from the end of 2022 (see Figure 1.2).

(4) Global stock markets generally went up

In 2023, global stock markets witnessed a general rise, and the MSCI World Index climbed from 605.38 at the beginning of the year to 726.70 at the end of the year, up 20.1 percent. Major stock indices in the US, Europe and Japan fluctuated sharply from August to October, with a significant correction, but resumed their upward trend after end-October. In 2023, the US S&P 500 Index went up as a whole, closing at 4,769.83 at the end of the year,

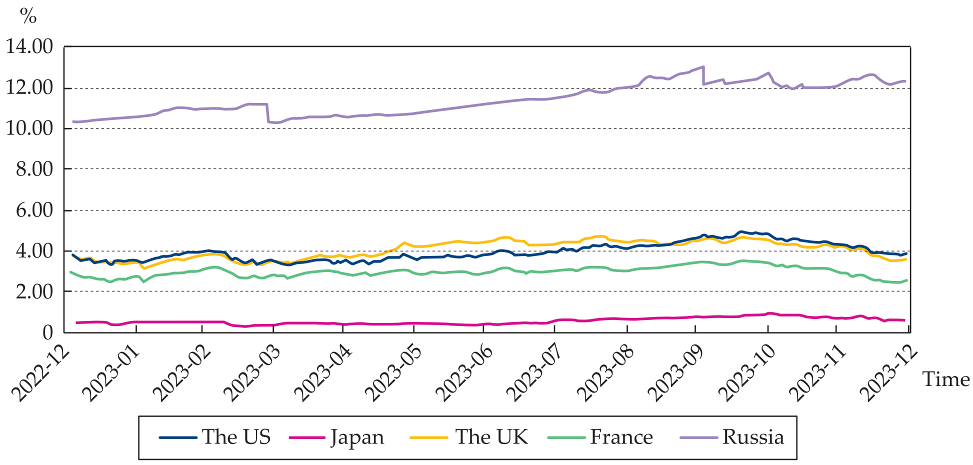

Figure 1.2 Yields on 10-year treasury bonds in major developed economies in 2023

(Source: Wind)

up 24.2 percent from 3,839.50 at end-2022. The Euro Stoxx 50 Index experienced an overall rise amid fluctuations in H1 2023. In H2 this year, it first fell to 4,153.37 on November 7, and then rose to 4,521.65 at the end of the year, up 19.2 percent from end-2022. Compared with those at end-2022, the stock markets of France, Germany and Japan all had significant upward movements, with the major stock indices rising by 16.5 percent, 16.5 percent, and 28.2 percent respectively. The UK FTSE 100 index edged up 3.8 percent. The Argentina's MERV Index went up sharply at a steady pace in H1 2023, and fluctuated and rose since then, closing at 929,704.19, up 360.1 percent from end-2022. The Brazil's IBOVESPA Index and the Russia's RTS Index grew by 22.3 percent and 11.6 percent respectively (see Figure 1.3).

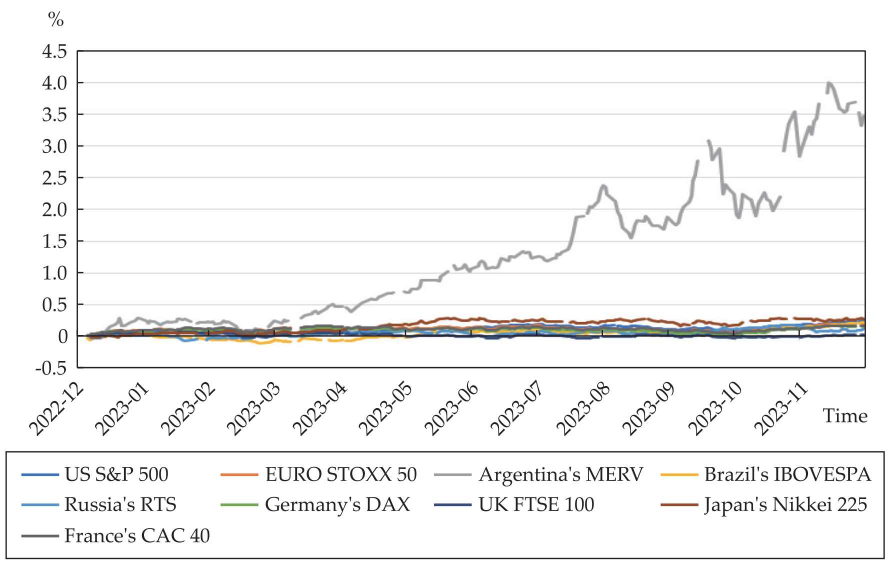

Figure 1.3 Movements of stock indices in major economies in 2023

(Source: Wind)

(Note: All the data in the figure are based on the stock indices at end-2022)

1.1.2 Domestic economic and financial situations

In 2023, facing complex and severe international environment and the arduous task of pressing ahead with reform and development while ensuring stability at home, China upheld the general principle of pursuing progress while ensuring stability, intensified macro adjustments, focused on expanding domestic demand, boosting confidence and preventing risks, and leveraged an optimal combination of macro policies. As a result, the national economy continued to pick up. In 2023, the GDP grew by 5.2 percent, achieving the expected target of around 5 percent, which was an important engine of global economic growth. China implemented a sound monetary policy in a precise and effective manner, enhanced counter-cyclical and inter-temporal adjustments, and maintained reasonable growth in money, credit, and aggregate financing to the real economy (AFRE), thus ensuring that the overall financing costs for the real economy remain stable with a slight decline, the credit structure is continuously optimized, and the RMB exchange rate remain basically stable at an adaptive and equilibrium level. The financial environment remained basically stable, and the financial sector continued to function well.

1.1.2.1 The national economy picked up

(1) China's economy continued to operate steadily

In 2023, China's GDP reached RMB 126.06 trillion. The growth rate was 2.2 percentage points higher than that of the previous year and faster than the average growth rate of 4.5 percent during the three years of the COVID-19 pandemic (see Figure 1.4 and Figure 1.5). The per capita GDP increased steadily, reaching RMB 89,400, an increase of 5.4 percent over the previous year. In 2023, China's consumer price index (CPI) rose by 0.2 percent year on year, maintaining a moderate upward trend, which is in sharp contrast to the high inflation in major developed economies. In 2023, 12.44 million urban jobs were created, 380,000 more than that of 2022, and the employment situation improved. In 2023, China's per capita disposable income reached RMB 39,218, up 6.1 percent in real terms from 2022, and the ratio of per capita disposable income between urban and rural residents narrowed to 2.39. Fiscal revenue and expenditure continued to grow. Revenue in the national general public budgets posted RMB 21,678.4 billion, up 6.4 percent from the previous year. Expenditures in the national general public budgets registered RMB 27,457.4 billion, increasing by 5.4 percent year on year. New tax and fee reductions and tax rebates and deferrals throughout the year exceeded RMB 2.2 trillion. The total volume of China's imports and exports of trade in goods reached RMB 41.8 trillion, achieving positive growth from a high base level. The trade structure continued to improve, and the proportion of general trade import-export volume with longer industrial chains and higher added value in the total import-export volume increased to 64.8 percent. 53,766 foreign-invested enterprises were newly established nationwide, an increase of 39.7 percent over the previous year. Actually utilized FDI decreased by 8 percent year on year to RMB 1,133.91 billion, and the scale was still at a historical high. Specifically, the ratio of investment attracted by high-tech industries to the actually utilized FDI hit a record high.

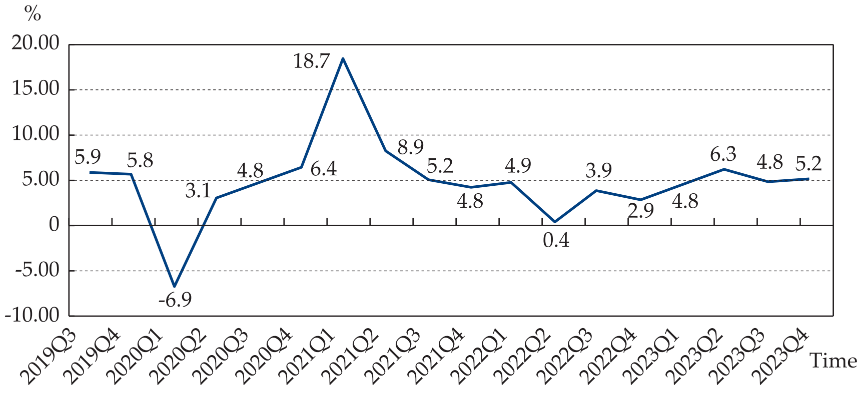

Figure 1.4 Year-on-year GDP growth rates by quarter from 2019 to 2023

[Source: National Bureau of Statistics (NBS)]

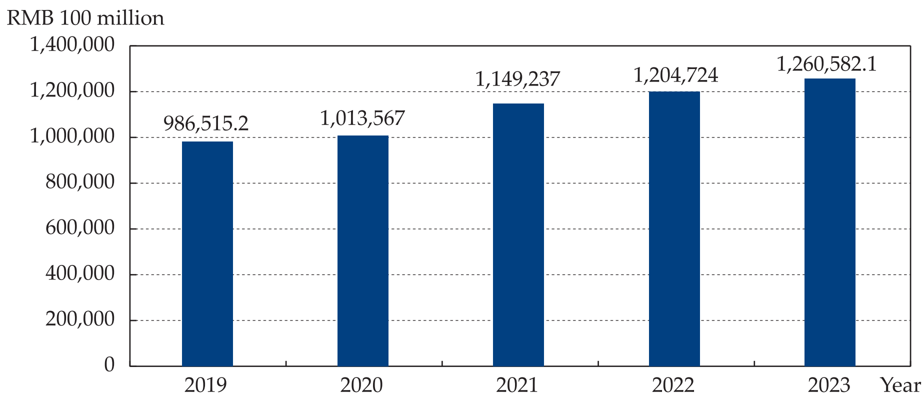

Figure 1.5 Total volumes of GDP from 2019 to 2023

(Source: NBS)

(2) The quality of economic development was effectively upgraded

Market sales recovered fairly quickly and service consumption grew rapidly. In 2023, the total retail sales of consumer goods hit RMB 47.15 trillion, up 7.2 percent from 2022. The retail sales of goods for basic living grew steadily, and the sales of clothing, shoes and hats, knitted textiles, as well as grain, oil and food by businesses above designated size grew by 12.9 percent and 5.2 percent, respectively. The online retail sales of physical goods increased by 8.4 percent from the previous year, accounting for 27.6 percent of the total retail sales of consumer goods. The nominal and real growth rates of per capita disposable income of rural residents were 2.6 percentage points and 2.8 percentage points faster than those of urban residents, respectively.

The scale of investment increased, and its structure was constantly adjusted and optimized. In 2023, total fixed-asset investments throughout China (excluding those by rural households) posted RMB 50.30 trillion, up 3.0 percent from 2022. Investments in manufacturing increased by 6.5 percent, 3.5 percentage points higher than the growth of total investments. Investments in infrastructure grew by 5.9 percent, 2.9 percentage points higher than the growth of total investments. Investments in the high-tech industry rose by 10.3 percent, 7.3 percentage points higher than the growth of total investments. Specifically, investments in the high-tech manufacturing sector and the high-tech services industry increased by 9.9 percent and 11.4 percent respectively.

Imports and exports of trade in goods were generally stable, and the trade structure continued to improve. In 2023, exports grew by 0.6 percent year on year and imports fell by 0.3 percent year on year, with the trade surplus in goods posting RMB 579 million. The import and export of general trade accounted for 64.8 percent of the total volume of China's imports and exports, an increase of 1.1 percentage points compared with that in the same period last year. The import and export of private enterprises increased by 6.3 percent, accounting for 53.5 percent of the total volume of China's imports and exports, up 3.1 percentage points from the same period last year. The import and export to Belt and Road partner countries grew by 2.8 percent, accounting for 46.6 percent of the total volume of China's imports and exports, up 1.2 percentage points from the previous year. The export of mechanical and electrical products increased by 2.9 percent, accounting for 58.6 percent of the total volume of China's exports.

New growth drivers demonstrated favorable momentum, and new industries and new advantages were taking shape at a faster pace. In 2023, the total R&D expenditure reached RMB 3.32782 trillion and the R&D intensity registered 2.64 percent, up 0.08 percentage points from the previous year. The added value of Industrial Enterprises Above a Designated Size (IEDS) increased by 4.6 percent year on year. The added value of equipment manufacturing grew by 6.8 percent, 2.2 percentage points higher than that of IEDS. The added value of the service industry increased by 5.8 percent year on year. Specifically, the added value of the hotel and catering sector, the information transmission, software and information technology services industry, and the financial sector rose by 14.5 percent, 11.9 percent and 6.8 percent year on year, respectively. The growth of the modern service industry was encouraging, and the contact-intensive service industry improved significantly. The output of solar cells, new energy vehicles, and generator sets (power generation equipment) rose by 54.0 percent, 30.3 percent and 28.5 percent respectively.

Green and low-carbon transition was steadily advanced. In 2023, China's carbon dioxide emissions per RMB 10,000 of GDP remained unchanged from 2022. The green and low-carbon transition was further pushed forward, the construction of clean energy projects was accelerated, and the structure of energy production and consumption was further optimized. The power generation of clean energy such as hydro, nuclear, wind and solar power registered 3,190.6 billion kilowatt-hours, up 7.8 percent from 2022. Renewable energy and new energy storage industries were developing rapidly, and clean energy consumption accounted for 26.4 percent of total energy consumption, up 0.4 percentage points over the previous year. Renewable energy accounted for more than half of the installed power generation capacity, historically exceeding thermal power installed capacity. Ecological protection and management were continuously strengthened, with 4 million hectares of afforestation completed throughout the year and 63,000 square kilometers of soil erosion control area added.

1.1.2.2 The financial environment remained stable, and the financial sector continued to perform steadily

(1) The People's Bank of China (PBOC) implemented a sound monetary policy in a precise and effective manner

In 2023, the PBOC sought progress while giving top priority to the stability of monetary policies, creating a sound monetary and financial environment for economic rebound.

It stepped up monetary and credit support for the real economy. In March and September, the PBOC lowered the required reserve ratio (RRR) twice, each by 0.25 percentage points, injecting long-term liquidity of over RMB 1 trillion in total. The medium-term lending facility (MLF) was renewed by RMB 2.5 trillion in a volume exceeding maturing MLFs. The PBOC continued to guide money market interest rates to move smoothly around the open market operation (OMO) reverse repo rate, and supported the large-scale centralized issuance of government bonds, thus creating a sound liquidity environment for providing financial support for the high-quality development of the real economy. The PBOC held several meetings for financial institutions to maintain appropriate aggregates and a steady pace in the supply of credit, thereby enhancing the stability and sustainability of credit growth.

It also brought down financing costs to stimulate effective demand. The policy rate was lowered twice, driving the market rates, including the loan prime rate (LPR) to go down. The one-year LPR and the over-five-year LPR decreased by 0.2 percentage points and 0.1 percentage point respectively, and the weighted average interest rate on corporate loans was 3.88 percent, down 0.29 percentage points year on year, the lowest level in the recorded history of the PBOC. The PBOC gave full play to the role of the mechanism for market-oriented adjustments of deposit rates to support banks in stabilizing their liability costs. It also optimized the supply of funds to promote structural transformation. The PBOC issued the *Notice on Strengthening Financial Support Measures to Boost the Development and Growth of the Private Economy*, implemented projects to enhance the capabilities of providing financial services for micro, small and medium-sized enterprises (MSMEs), and continuously optimized financial services provided by private enterprises and micro and small businesses (MSBs). It improved the policy framework for providing financial support for sci-tech innovation, built a diversified and orderly financial service system for sci-tech innovation, and carried out special actions to improve the financial service capability for sci-tech innovation. The PBOC increased the quota for central bank lending to support rural development and MSBs by RMB 250 billion, extended the inclusive MSB loan facilities and the carbon emission reduction facility (CERF), increased the quota of pledged supplementary lending (PSL) by RMB 500 billion, and channeled more financial resources to major national strategies, key areas and weak links.

It kept the exchange rate stable while striking a balance between internal and external equilibria. It deepened the market-oriented reform of exchange rates, cut the RRR for foreign exchange deposits of financial institutions from 6 percent to 4 percent, and raised the macro-prudential adjustment parameter for cross-border financing for enterprises and financial institutions from 1.25 to 1.5. Leveraging the China Foreign Exchange Market Self-Regulatory Framework (SRF), it attached importance to guiding expectations, ensuring that the supply and demand in the foreign exchange market remain in equilibrium, and keeping the RMB exchange rate basically stable at an adaptive and equilibrium level.

(2) Financial regulation was comprehensively strengthened

In 2023, the trend of strong and strict financial regulation was further consolidated, and the "iron fence" of the regulatory system was tightened. The financial regulation to provide key support for forestalling and defusing risks and serving the high-quality development of the real economy was comprehensively strengthened. In March, the *Party and State Institutional Reform Plan* issued by the Central Committee of the Communist Party of China (CPC) and the State Council proposed the establishment of the Central Financial Committee and the Central Financial Work Committee. The establishment of the Central Financial Committee and the Central Financial Work Committee is an important embodiment of the Central Committee's efforts to strengthen centralized and unified leadership over financial work, providing an important guarantee for further deepening the reform of the financial regulatory system and accelerating the establishment of a long-term mechanism to prevent and resolve financial risks. Laws must be enforced strictly to enhance the "tough and assertive" regulation. Under the general tone of strong and strict regulation, the regulators grasped the principal contradictions in a problem-oriented manner, identified the substantial risks, kept a close eye on "key issues", "key people" and "key behaviors", and took decisive actions against the chaos in the financial market to effectively address related problems and difficulties. They accelerated the establishment of rules and regulations, and constantly tightened the "iron fence" of the system. In response to changes in the development of financial business and practical needs, the development of regulatory systems in key financial areas and emerging areas was promptly advanced. Financial regulatory systems such as the *Administrative Measures for the Capital of Commercial Banks*, the *Measures for the Administration of Registration of Initial Public Offerings*, the *Measures for the Assessment of Systemically Important Insurers*, and the *Regulations on the Supervision and Administration of Non-bank Payment Institutions* were introduced successively. Financial regulatory authorities strengthened the monitoring and assessment on financial risks, and prudently resolved risks in key areas and institutions. They pushed forward their work in an orderly manner to provide financial support for the mitigation of debt risks associated with financing platforms. They reinforced the system that safeguards financial stability.

(3) The money and credit aggregates saw reasonable growth, and the credit structure kept improving

At end-2023, outstanding RMB loans, outstanding broad money supply (M2) and outstanding AFRE were RMB 237.6 trillion, RMB 292.3 trillion and RMB 378.1 trillion respectively, a year-on-year increase of 10.6 percent, 9.7 percent and 9.5 percent respectively. New RMB loans amounted to RMB 22.7 trillion, increasing by RMB 1.3 trillion year on year. The credit structure was optimized on an on-going basis. At end-2023, inclusive MSB loans and medium and long-term (MLT) loans to the manufacturing sector grew by 23.5 percent and 31.9 percent year on year, respectively; and loans to private enterprises increased by 12.6 percent year on year, up 1.6 percentage points from end-2022. The overall financing costs for the real economy remained stable with a slight decline. In December, the weighted average interest rate on newly-issued corporate loans stood at 3.75 percent, down 0.22 percentage points year on year, continuously hitting a record low. The weighted average interest rate on newly-issued individual housing loans was 3.97 percent, 0.29 percentage points lower than that in the same period last year.

(4) The financial sector functioned stably, and total assets maintained a reasonable growth

The total assets of the banking sector grew steadily, and financial services continued to strengthen. The quality of credit assets of commercial banks remained stable, the risk offsetting ability was generally sufficient, and the liquidity level was reasonable and stable. The total assets of banking financial institutions registered RMB 417.3 trillion, growing 10.0 percent year on year. The total liabilities of the banking sector reached RMB 383.1 trillion, up 10.1 percent year on year. Outstanding non-performing loans (NPLs) of commercial banks as legal entities stood at RMB 3.2 trillion, and the NPL ratio was 1.59 percent, down 0.04 percentage points from 2022. Outstanding loan loss reserves of commercial banks totaled RMB 6.6 trillion, and the provision coverage ratio was 205.14 percent, down 0.71 percentage points from 2022. The loan provision ratio posted 3.27 percent, down 0.09 percentage points from 2022. The capital adequacy ratio (CAR) registered 15.06 percent, down 0.11 percentage points from 2022. The liquidity ratio hit 67.88 percent, up 5.03 percentage points from 2022.

The securities industry experienced a decline in operating performance, but its capital strength was further consolidated. The total assets of securities institutions amounted to RMB 13.84 trillion, a year-on-year increase of 5.6 percent, while the total liabilities reached RMB 10.43 trillion, up 5.5 percent compared to the previous year. As of end-2023, a total of 145 securities companies reported operating revenues of RMB 405.902 billion, net profits of RMB 137.833 billion, net assets of RMB 2.95 trillion, and net capital of RMB 2.18 trillion.

The insurance industry saw steady growth in original insurance premium income and maintained adequate and stable solvency. The original insurance premium income of insurance companies reached RMB 5.1 trillion, up 9.1 percent from the previous year. Claims and benefit payments totaled RMB 1.9 trillion, a year-on-year increase of 21.9 percent. The number of newly issued insurance policies for 2023 was 75.4 billion, up 36.1 percent year on year. The total assets of insurance companies amounted to RMB 29.96 trillion, a 10.4 percent growth from the beginning of the year. The comprehensive solvency adequacy ratio of the insurance industry was 197.1 percent, and the core solvency adequacy ratio registered 128.2 percent, both exceeding the regulatory standards of 100 percent and 50 percent, respectively.

1.2 Main features of China's financial market performance in 2023

1.2.1 The financial market scaled up steadily

In terms of market transactions, the trading volume in the interbank money market continued to increase, with a turnover of RMB 1,817.20 trillion for 2023, a year-on-year growth of 19.0 percent. The bill market saw a total acceptance and discount amount of RMB 31.35 trillion and RMB 23.82 trillion, respectively, representing year-on-year increases of 14.5 percent and 22.4 percent. In the bond market, a total of RMB 71 trillion of bonds were issued throughout the year, with bond financing accounting for 31.6 percent of the AFRE (flow), up 2.9 percentage points from 2022. Outstanding bonds increased to RMB 157.9 trillion, with the bond market ranking second in the world. The total trading volume of spot bonds reached RMB 354 trillion, a year-on-year increase of 14.3 percent, while the over the counter (OTC) bond business saw a dramatic 10-fold year-on-year increase in total transaction volume. In the stock market, total transactions amounted to RMB 212 trillion for the year. The issuance pace of new stocks was appropriately managed, and a total of RMB 360 billion of stocks were issued throughout the year. Additionally, the total cash dividends paid by listed companies reached a record high. The trading volume of gold on the Shanghai Gold Exchange (SGE) reached 41,500 tons and RMB 18.57 trillion, reflecting year-on-year increases of 7.1 percent and 22.3 percent, respectively. The trading volume of gold futures on the

Shanghai Futures Exchange (SHFE) totaled 52,700 tons and RMB 23.85 trillion, with year-on-year growth of 35.2 percent and 55.4 percent, respectively. The trading volume and turnover of commodity futures and options were 8.333 billion lots and RMB 435.34 trillion, marking year-on-year increases of 25.9 percent and 8.3 percent, respectively, which accounted for 71.2 percent of global commodity derivatives. The open interest of stock index futures products stood at 962,500 lots, increasing by 27.3 percent year on year. The turnover of treasury bond futures reached RMB 55.78 trillion, up 20.2 percent year on year. The original premium income of the insurance industry increased by RMB 5.12 trillion, rising by 9.1 percent year on year, while the industry's total assets amounted to RMB 29.96 trillion, reflecting a year-on-year growth of 10.4 percent.

In terms of participants, there were 2,503 member institutions in the interbank lending market, an increase of 71 compared to the previous year. The number of market participants in the bill market totaled 3,074, an increase of 31 over the previous year. There were 4,955 participating institutions in the interbank bond market. At the end of 2023, the number of member institutions in the SGE reached 291, an increase of 5 from the previous year.

1.2.2 Fluctuations in financial market prices

The weighted average transaction interest rate in the money market for the entire year was 1.79 percent, an increase of 21 bps from the previous year. In the bill market, the weighted average discount rate for the entire market in 2023 posted 1.8 percent, a decrease of 16 bps from the previous year. Bond yields generally showed a downward trend, with term spreads narrowing slightly. The stock market experienced an initial rise followed by a decline, with a decrease in index volatility. Among them, the BSE 50 Index rose by 14.9 percent throughout the year. The basis for treasury bond futures and the price spread between forward contracts narrowed significantly. Interest rate swap prices initially decreased and then increased, showing a downward trend overall. The main contracts, FR007_1Y and FR007_5Y, had prices of 1.99 percent and 2.32 percent, respectively, which were 19 bps and 44 bps lower than those at end-2022. The RMB exchange rate was relatively flexible, remaining generally stable against a basket of currencies. It appreciated against the US dollar initially, followed by depreciation, and stabilized and rebounded towards the end of the year. Throughout the year, the onshore and offshore RMB exchange rates exhibited a consistent overall trend, and the difference between domestic and foreign exchange rates during the period of RMB depreciation was significantly lower than historical levels. The domestic gold price rose, with the SGE's Au (T+D) contract closing at RMB 479.91 per gram, an increase of 17.2 percent compared to the end of 2022. Gold futures prices generally showed a fluctuating upward trend, with the SHFE's main gold futures contract closing at RMB 482.16 per gram at the end of the year, an increase of RMB 70.70 per gram or 17.2 percent from end-2022. The futures and spot prices in the stock index futures and options markets are closely linked.

1.2.3 The quality and efficiency of the financial market to serve the real economy were enhanced

In terms of technology finance, throughout the year, the bond market supported the issuance of RMB 405.5 billion in bills for sci-tech innovation and RMB 464.5 billion in corporate bonds for sci-tech innovation, benefiting nearly 1,000 sci-tech enterprises. The Sci-Tech Innovation Board (STAR Market) of Shanghai Stock Exchange (SSE) saw 67 new listings, raising RMB 143.9 billion, accounting for 74 percent of the total funds raised through initial public offerings (IPOs). On the Shenzhen Stock Exchange (SZSE), 145 enterprises in strategic emerging industries were listed, making up 93 percent of IPO enterprises.

In terms of green finance, throughout the year, the bond market supported the issuance of 475 green bonds, with a total amount of RMB 836.0 billion. As of end-2023, outstanding domestic green bonds reached RMB 1.98 trillion. The China Green Bond Index was launched, enriching the variety of investment products in the secondary market. The Green Bond Index of the China Foreign Exchange Trade System (CFETS) continued to expand and now covers nine green bond indices.

In terms of inclusive finance, the bill market served 3.136 million MSMEs, accounting for 98.0 percent of the total number of bill-issuing enterprises. The discount amount for MSMEs as applicants accounted for 73.6 percent. The market's weighted average discount rate was 177 bps lower than the average 1-year LPR during the same period, effectively reducing the financing costs for real economy enterprises. The bond market further strengthened support for key areas and weak links, with financial bonds for MSBs and for the agricultural sector, rural areas, and farmers issued in the amounts of RMB 263.7 billion and RMB 58.2 billion, respectively.

In terms of old-age finance, pilot programs for the conversion of life insurance and long-term care insurance liabilities were launched, along with pilot programs for individual tax-deferred commercial old-age insurance and the coordination of individual pensions. Additionally, dedicated commercial old-age insurance services were officially introduced.

In terms of digital finance, the PBOC optimized the roadshow process for negotiable certificate of deposits (NCDs), enabling the display of roadshow quotes and supporting pre-subscription operations through the interbank market instant messaging platform iDeal. It launched China's first independent and controllable blockchain-based digital bond issuance public platform, supporting a total of RMB 84.5 billion in bond issuance throughout the year. The "Bill Payment Connect" platform launched functions such as intelligent subcontracting payments and fast payments, unlocking the business potential of market participants in the bill market. A new digital wallet port was added under the FT settlement account system for the Shanghai International Gold Exchange (SGEI), and the first cryptocurrency deposit and cross-border transfer tests for international members were completed. The CCNet e-CNY clearing and settlement service was launched, with a cumulative clearing amount exceeding RMB 1 billion.

Historical backtesting indicates that the constructed Financial Market Stress Index fits well with significant historical events and can objectively reflect the market's stress conditions. Monitoring results since 2022 also show that the Financial Market Stress Index effectively and objectively reveals the level of market risk pressure in a timely manner, aiding in the monitoring and assessment of financial market risk conditions.

1.2.4 High-level two-way opening-up of the financial market continued to broaden

The opening-up of the bond market was further intensified. As of end-2023, a total of 1,124 overseas institutions had entered Chinese bond market, a year-on-year increase of 4.9 percent, with their holdings of Chinese bonds amounting to RMB 3.72 trillion, up 6.2 percent from the previous year. The *Notice on the Work Related to the Pilot Program of Optimizing the Pricing Mechanism for Bond Offerings by Overseas Institutions* was issued to continuously improve the regulations and rules on panda bonds. Efforts were made to expand the role of foreign institutions in China as market makers for the "Northbound Bond Connect Trading" program, offering a basket of bond portfolio trading functions, and optimizing the reporting process for settlement failures under the "Northbound Bond Connect Trading" program. Additionally, the supporting services for the "Southbound Bond Connect Trading" program were improved, including the completion of relevant tax value-added services under the Foreign Account Tax Compliance Act (FATCA) for the "Southbound Bond Connect Trading" program.

The *Provisional Measures for the Administration of Domestic Enterprises Issuing Securities and Listing Overseas* and supporting guidelines were unveiled to better support domestic enterprises in listing abroad. Efforts were made to regulate the overseas issuance of depositary receipts by domestic listed companies that can be converted into domestic underlying shares. Measures were taken to expand the scope of eligible trading targets under the Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect, incorporating qualified stocks of foreign companies listed in Hong Kong in the trading scope. The Shenzhen-London Stock Connect was steadily advanced and the Shanghai-Singapore ETF Connectivity was officially launched.

The PBOC provided support for piloting innovative foreign exchange policies in key areas, including the Hengqin Guangdong-Macao In-Depth Cooperation Zone, the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone, and Zhongguancun Science and Technology Park. The revised version of the *Guidelines for Main Brokerage Business in the China Interbank Foreign Exchange Market* was released to enhance the convenience and flexibility for overseas institutions to engage in foreign exchange risk management. Four new overseas member institutions were added to the interbank foreign exchange market, and the trading hours of the interbank foreign exchange market were extended.

The mutual access between the Mainland and Hong Kong interest rate swap markets (Swap Connect) was launched. Throughout the year, a total of 51 overseas institutions participated in Swap Connect, with a nominal principal of RMB 940.5 billion in transactions. The clearing volume of overseas institutions in the interest rate swap market increased by nearly 340 percent year on year. The first batch of overseas investors participated in standard bond forward transactions.

The SGEI added eight international members, with a total transaction value of RMB 2.52 trillion for the year, an increase of 20.6 percent year on year. A total of 33 commercial banks participated in overseas gold trading throughout the year, with a nominal turnover of USD 1.2481 trillion, up 6.2 percent year on year.

The *Detailed Implementation Rules on Advancing the Development of Shanghai into an International Reinsurance Center* was released, and the Shanghai International Reinsurance Exchange was officially launched.

1.2.5 Financial market institutional development was further strengthened

In the bond market, the Administrative *Measures for the Bond Valuation Services in the Interbank Bond Market* was issued to enhance the effectiveness of bond market pricing and its market functions. The Administrative *Measures for the Registration, Custody, and Settlement of Government Bonds* was also introduced. The Administrative *Measures for the Issuance and Trading of Corporate Bonds* and its supporting documents were released, and the *Notice on Matters Concerning Further Strengthening the Regulation of Issuance Business in the Interbank Bond Market* was unveiled to further regulate bond issuance. Additionally, a list of China's existing green bonds that conform to the *Common Ground Taxonomy Between China and the EU on Sustainable Finance* was published. Moreover, the *Procedures for the Holder Meeting of Non-financial Enterprise Debt Financing Instruments in the Interbank Bond Market* was revised and released to better leverage the collective action mechanism of holders in handling bond risks and defaults. In the stock market, the reform of the registration-based IPO system was implemented in a comprehensive manner, and the *Rules on Fully Implementing the Registration-based IPO System* was issued to promote the high-quality operation of this system. The *Measures for the Administration of Independent Directors of Listed Companies* was unveiled to encourage listed companies to improve corporate governance. The *Regulations on the Supervision and Administration of Private Investment Funds* was released to strengthen the construction of the institutional system of the fund industry. The *Interim Regulations on the Supervision of Important Money Market*

Funds was issued to further enhance the safety and liquidity of important money market fund products. Additionally, the guidelines for delisting risk information disclosure were introduced to strengthen control over the sources of delisting risks, thus promoting the formation of a healthy market ecosystem for smooth market entry and exit. In the bill market, the Administrative *Measures for the Acceptance, Discount and Central Bank Discount of Commercial Drafts* was officially implemented, strengthening risk prevention in the bill market and enhancing the inclusiveness of bills. In the gold market, the Administrative *Measures for the Acceptance, Discount and Central Bank Discount of Commercial Drafts* was officially implemented to promote the standardized development of gold leasing business. In the insurance market, the *Measures for the Assessment of Systemically Important Insurers* was issued to strengthen the supervision of insurers. In the futures market, the newly revised *Measures for the Administration of Futures Exchanges* was officially implemented to reinforce risk management in the futures market.

1.2.6 Financial market risks were prudently mitigated

In the bond market, the focus was on preventing and mitigating the risk of bond defaults by large real estate enterprises; strictly controlling the incremental debt of financing platforms and improving the regular debt statistics and monitoring mechanism for such platforms; and promoting the implementation of bond buyback and resale businesses in the interbank bond market, thereby providing enterprises with more options for proactive debt management and bond risk resolution. In the stock market, efforts were made to implement policies on counter-cyclical adjustments, properly manage the pace of IPOs, and safeguard market stability. Measures were taken to implement regulatory requirements in a stable and sound manner, establish a long-term working mechanism for risk reduction, and conduct regular risk screening. The working mechanism for joint research and judgment of market risks was optimized, and the market risk monitoring and early warning indicator system was improved. Steps were taken to upgrade market-oriented, law-based and diversified risk disposal methods, and properly handle companies with signs of risk. In addition, illegal and irregular activities were strictly cracked down on, and the responsibilities of delisting entities were strictly fulfilled. Efforts were also made to enhance the monitoring and regulatory mechanisms for cross-border capital flows in the capital market, promote the audit regulation cooperation between China and the US in an orderly manner, and prudently respond to risks associated with the US-listed China concepts stocks. In the foreign exchange market, steps were taken to maintain a sound operation of the foreign exchange market, guide both enterprises and financial institutions to be risk-neutral, stabilize market expectations, and make timely corrections on pro-cyclical and one-sided behaviors. Furthermore, efforts were made to bolster regulation on the foreign exchange market, and severely crack down on illegal and irregular activities such as underground banks, cross-border gambling, and export-tax rebate cheat. The authenticity management mechanism for foreign exchange business was improved to intensify monitoring on the market dynamics. In addition, illegal financial activities were severely cracked down on by further defusing the risks caused by "pseudo financial asset exchanges" and third-party wealth management companies. As a result, the focus of financial supervision of Internet platform enterprises has shifted to normalized regulation.

1.3 Outlook of China's financial market development in 2024

The year 2024 marks the 75th anniversary of the founding of the People's Republic of China and is a key year for achieving the goals and tasks set out in the 14th Five-Year Plan. Under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, China's financial market will fully and thoroughly implement the guidelines of the 20th CPC National Congress, the Central Economic Work Conference, and the Central Financial Work Conference, as well as the decisions and arrangements made by the CPC Central Committee and the State Council. The focus will be on accelerating the construction of a modern financial market system with Chinese characteristics, promoting the high-quality development of China's financial market, and accelerating steps to build a strong financial sector in China.

1.3.1 The capabilities of China's financial market to support the real economy will be improved

Efforts will be made to continuously smooth the channels through which financial market funds flow into the real economy, and effectively strengthen the functions of the financial market in supporting major strategies, key areas, and weak links. Also, the financial market will optimize the financing structure, leverage the hub function of the capital market, further promote the practical development of the registration-based IPO system, vigorously advance reforms on the investment side, and improve the policy environment conducive to the entry of MLT funds into the market. It will promote the high-quality development of the bond market, make the bond market more resilient and better at market-oriented pricing, and increase the proportion of direct financing. Efforts will be made to improve the ability of the financial market to serve high-quality economic development, strengthen the overall regulation and construction planning of financial infrastructure, vigorously improve the quality of listed companies, accelerate the cultivation of first-class investment banks and institutions, optimize the policy environment for the development of private equity and venture capital funds, and improve the system of commodity futures varieties.

1.3.2 Financial market risks will be actively forestalled and defused

Focusing on comprehensively strengthening regulation and forestalling and defusing risks, measures will be taken to firmly defend the bottom line whereby no systemic risks will occur, thus ensuring the stable operation of the financial market. Based on market principles and rule of law, the financial sector will continue to adopt a zero-tolerance approach to step up efforts to crack down on illegal and irregular conduct in the bond market. The requirements for early identification, warning, exposure, and resolution will be implemented, promoting the continuous mitigation of risks in key areas of the capital market. The market will be regulated in strict accordance with the law by establishing a sound regulatory enforcement system, strengthening regulatory accountability, and resolutely cracking down on illegal and irregular activities, in a bid to effectively protect the legitimate rights and interests of investors. The risk monitoring and early warning mechanisms for sub-markets in areas of currency, bonds, gold, foreign exchange, and bills will be improved. Expectations will be reasonably guided to prevent the cross-regional, cross-market, and cross-border transmission and resonance of risks. The responsibility for production safety will be strictly implemented to ensure the safe and stable operation of market infrastructure and information network systems.

1.3.3 Development and innovation of the financial market will be pushed forward

To maintain market fairness, it is essential to review and assess key institutional arrangements in the capital markets, with a focus on improving regulatory rules for issues such as issuance pricing, quantitative trading, and securities lending. Efforts will be made to enhance the investability of listed companies, improve quality evaluation standards for listed companies, strengthen the normalized delisting mechanism, and ensure that intermediary institutions fulfill their gatekeeping responsibilities. Additionally, the legal system for the bond market will be improved to solidify the legal foundation for corporate debenture bonds. A linkage mechanism between market makers and primary dealers in open market operations will be established, along with enhancements to the management of bond underwriting, valuation, market-making, and other services, to improve bond market pricing functions and overall market stability. The expansion and standardized development of OTC bond business will be promoted. The coverage and efficiency of the exchange-traded bond market will be steadily advanced. In addition, efforts will be made to leverage the functions of the futures market to help increase the price influence of major commodities.

1.3.4 The institutional opening-up of financial markets will be steadily expanded

Under the principle of ensuring national financial and economic security, the PBOC will steadily expand the institutional opening-up of China's financial markets in terms of rules, regulations, management and standards, thereby further facilitating cross-border investment and financing. It will advance high-level financial opening-up with a focus on institutional opening-up, and implement a management system of pre-establishment national treatment plus a negative list. Aligning with relevant rules in the financial sector of international high-standard economic and trade agreements, the PBOC will simplify restrictive measures, and enhance the transparency, stability, and predictability of open policies. It will also regulate overseas investment and financing behaviors, and improve financial support for the Belt and Road Initiative (BRI). The PBOC will strike a balance between financial opening-up and security, expand the scope of the connectivity between domestic and overseas financial markets, orderly advance the connectivity among financial infrastructures at home and abroad, further facilitate cross-border investment and financing, and enhance the transparency, stability, and predictability of open policies, so as to attract more foreign financial institutions and long-term capital to invest and operate in China.

Chapter 2 Money Market

In 2023, the PBOC implemented a sound monetary policy that was precise and effective. Liquidity in the banking system remained adequate at a reasonable level, and the money market was stable. Overall trading volume expanded, with a slight decline in interbank lending, continued growth in repo trading, and an increase in the issuance of NCDs. Market interest rates showed a steady upward trend, fluctuating around policy rates overall. The structure of trading maturities continued shifting towards shorter terms, further facilitating transactions. All these created a favorable liquidity environment for the financial sector to serve the high-quality development of the real economy.

2.1 Interbank lending market

In 2023, the overall performance of the interbank lending market was stable. The number of market participants continued to grow, although trading volume experienced a slight decline. Interest rates rose while volatility narrowed. The term structure was still dominated by short-term maturities, with large commercial banks continuing to be the primary net lenders of funds.

2.1.1 Performance of the interbank lending market

In 2023, the trading volume of the interbank lending market totaled RMB 142.96 trillion, down 2.63 percent year on year and registering an average daily trading volume of RMB 571.854 billion. Specifically, the O/N and 7-day interbank lending accounted for 89.53 percent and 8.84 percent of the total respectively. The annual weighted average interest rate posted 1.69 percent, up 14 bps (see Figure 2.1). As of

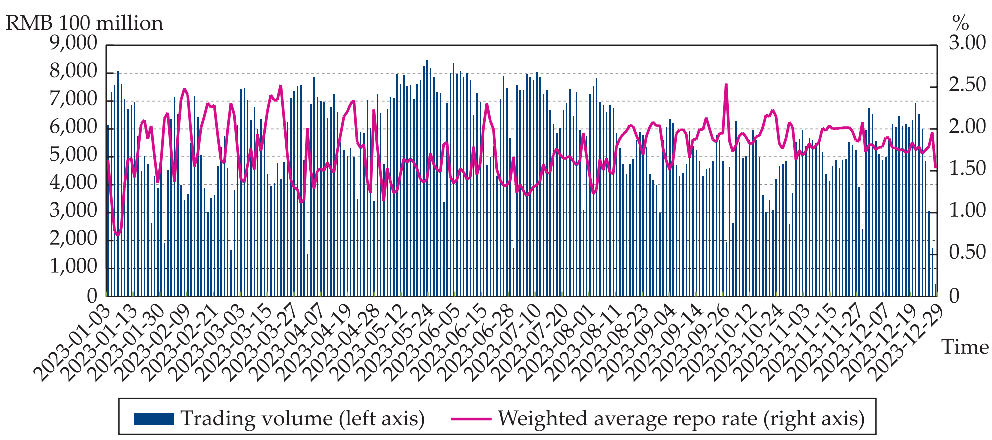

Figure 2.1 Interbank lending volumes and interest rate movements in 2023

(Source: CFETS)

end-2023, there were 2,503 market participants, an increase of 71 over the previous year.

2.1.2 Main features of the interbank lending market

2.1.2.1 Trading volume decreased slightly

In 2023, the trading volume of the interbank lending market declined slightly, with a cumulative turnover of RMB 142.96 trillion, a year-on-year decrease of 2.63 percent (see Figure 2.2). Specifically, the trading volume from July to October decreased from the same period last year, whereas the trading volume in other months increased to varying degrees from the same period in 2022. August and September saw year-on-year growth rates of -24.85 percent and -32.75 percent respectively due to a high base in the same period in 2022. The average daily balance of credit lending was RMB 1.1 trillion, basically the same as the previous year (see Figure 2.3).

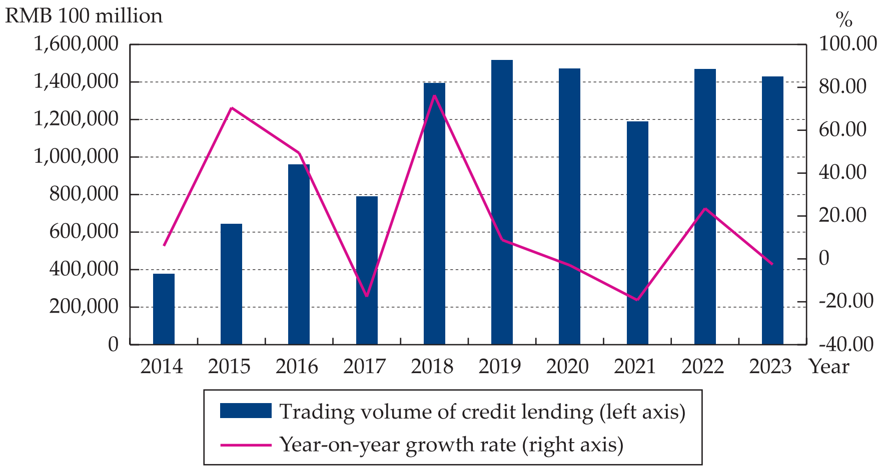

Figure 2.2 Trading volumes and growth rates of the interbank lending market from 2014 to 2023

(Source: CFETS)

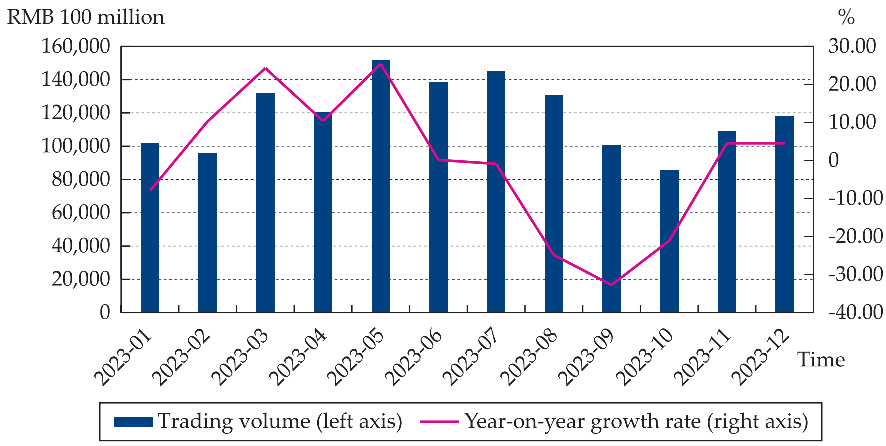

Figure 2.3 Monthly trading volumes and year-on-year growth rates of the interbank lending market in 2023

(Source: CFETS)

2.1.2.2 Interest rates rose while volatility narrowed

In 2023, the annual weighted average interest rate of the interbank lending market increased by 14 bps. At end-2023, the daily weighted rates of the O/N and 7-day interbank lending stood at 1.84 percent and 2.26 percent respectively, up 28 bps and 15 bps respectively from the beginning of the year. The 3-month interbank lending closed at 3.31 percent, up 14 bps from the beginning of the year. The average spread between 3-month and O/N interbank lending for the year was 1.17 percentage points, a decrease of 0.17 percentage points from the previous year. The interest rate volatility of each maturity type narrowed, and the variances of weighted interest rates of O/N, 7-day and 3-month lending were 0.11, 0.05 and 0.06, down 0.02, 0.03 and 0.12 from the previous year, respectively.

2.1.2.3 Short-term varieties dominated

Interbank lending mainly focuses on short-term varieties, with O/N and 7-day lending accounting for 89.53 percent and 8.84 percent of the total respectively, up 0.35 percentage points from the previous year and the same as the previous year respectively. The 14-day, 21-day, 1-month, 2-month and 3-month maturities accounted for 0.88 percent, 0.12 percent, 0.26 percent, 0.16 percent and 0.46 percent of the total respectively, up -0.36, -0.02, 0.03, -0.05 and 0.06 percentage points respectively. Other varieties, including 4-month, 6-month, 9-month and 1-year lending, took up 0.01 percent to 0.03 percent, basically the same as the previous year.

2.1.2.4 Large commercial banks remained the major net lender

In 2023, the major net lenders in the interbank lending market were large commercial banks, policy banks and joint-stock commercial banks, with a net lending volume of RMB 55.43 trillion, RMB 7.91 trillion and RMB 7.29 trillion, accounting for 75.78 percent, 10.82 percent and 9.97 percent respectively, an increase of 14.40, -0.06 and -13.43 percentage points from the previous year. The major net borrowers were securities companies, urban commercial banks and finance companies, with a net borrowing volume of RMB 42.49 trillion, RMB 19.05 trillion and RMB 5.80 trillion, accounting for 58.08 percent, 26.04 percent and 7.93 percent respectively, up -1.72, 3.31 and -5.25 percentage points.

2.2 Bond repo market

In 2023, the performance of the bond repo market remained stable overall. The trading volume continued to expand; the repo interest rate rose steadily; O/N interbank lending dominated the market; and the share of non-bank financial institutions and their products kept rising. Trading in the inter-lending market was further improved, becoming more accessible.

2.2.1 Performance of the bond repo market

In 2023, the cumulative turnover of the bond repo market was RMB 2,132.08 trillion, up 19.53 percent year on year. Specifically, the cumulative turnover of the interbank bond repo registered RMB 1,674.23 trillion, up 21.31 percent year on year; and the cumulative turnover of the exchange-traded bond repo posted RMB 457.85 trillion, up 13.45 percent year on year.

2.2.1.1 Performance of the interbank bond repo market

In 2023, the cumulative turnover of interbank bond repo was RMB 1,674.23 trillion, a year-on-year increase of 21.31 percent. Specifically, the cumulative turnover of pledged repo stood at RMB 1,668.80 trillion, up 21.40 percent year on year; and the cumulative turnover of outright repo was RMB 5.42 trillion, down 2.67 percent year on year. The share of the trading volume of pledged repo in the bond repo market hit 99.68 percent, up 0.08 percentage points from the previous year (see Figure 2.4).

In 2023, the interest rate in the interbank bond repo market rose steadily while fluctuating around the policy rates. Specifically, the weighted average pledged repo rate was 1.79 percent, up 21 bps; the weighted average outright repo rate was 1.83 percent, up 28 bps. The variances of the daily weighted average pledged repo rate and the daily weighted average outright repo rate were both 0.15, which went slightly up from the previous year (see Figure 2.5).

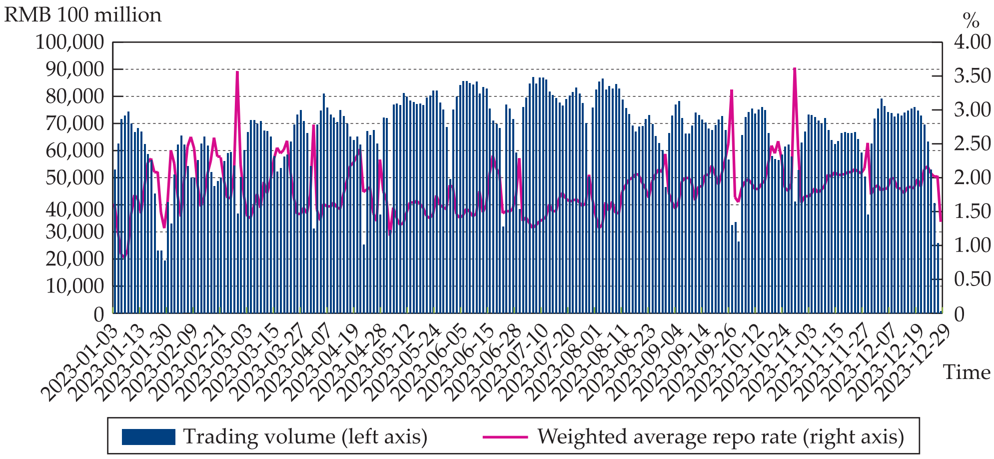

Figure 2.4 Volume and price of interbank pledged repo market in 2023

(Source: CFETS)

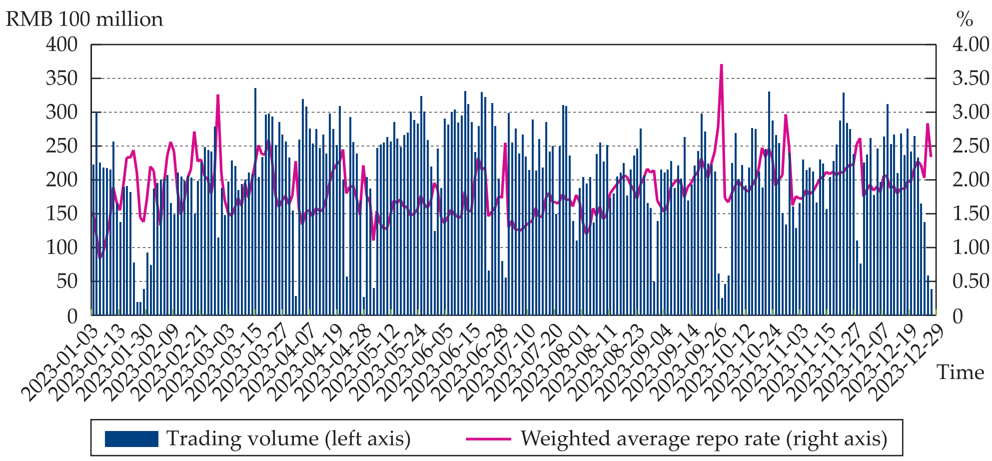

Figure 2.5 Volume and price of interbank outright repo market in 2023

(Source: CFETS)

2.2.1.2 Performance of the exchange-traded bond repo market

In 2023, the cumulative turnover of exchange-traded bond repo market was RMB 457.85 trillion, up 13.45 percent year on year. By trading venue, the cumulative turnover of the bond repo on the SSE was RMB 403.97 trillion, a year-on-year increase of 12.7 percent, while the cumulative turnover of the bond repo on the SZSE was RMB 53.88 trillion, a year-on-year increase of 19.4 percent. By product type, the cumulative turnover of pledged repo on the SSE was RMB 348.24 trillion, up 11.85 percent year on year, and the cumulative turnover of pledge agreement-based repo was RMB 3.78 trillion, up 129.18 percent year on year. The cumulative turnover of pledged repo on the SZSE was RMB 53.60 trillion, a year-on-year increase of 19.06 percent, and the cumulative turnover of pledge agreement-based repo was RMB 282.969 billion, a year-on-year increase of 209.78 percent (see Figure 2.6).

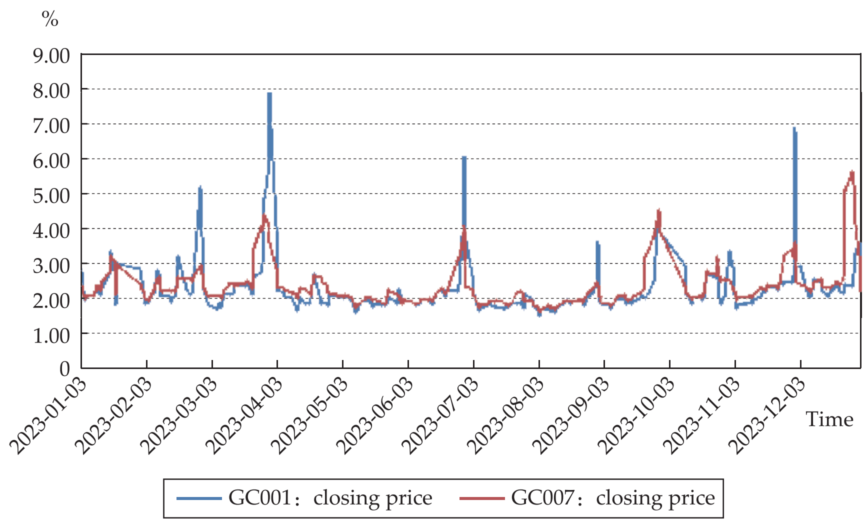

Figure 2.6 Moments of closing rates of general pledged repo on the SSE in 2023

(Source: SSE)

Repo rates showed mixed movements. The weighted average interest rates of the 1-day and 7-day general pledged repo on the SSE were 2.35 percent and 2.40 percent, a year-on-year increase of 30 bps and 32 bps respectively. The weighted average interest rates of the 1-day and 7-day general pledged repo on the SZSE were 2.328 percent and 2.425 percent respectively, up 30 bps and 33 bps respectively year on year (see Figure 2.7).

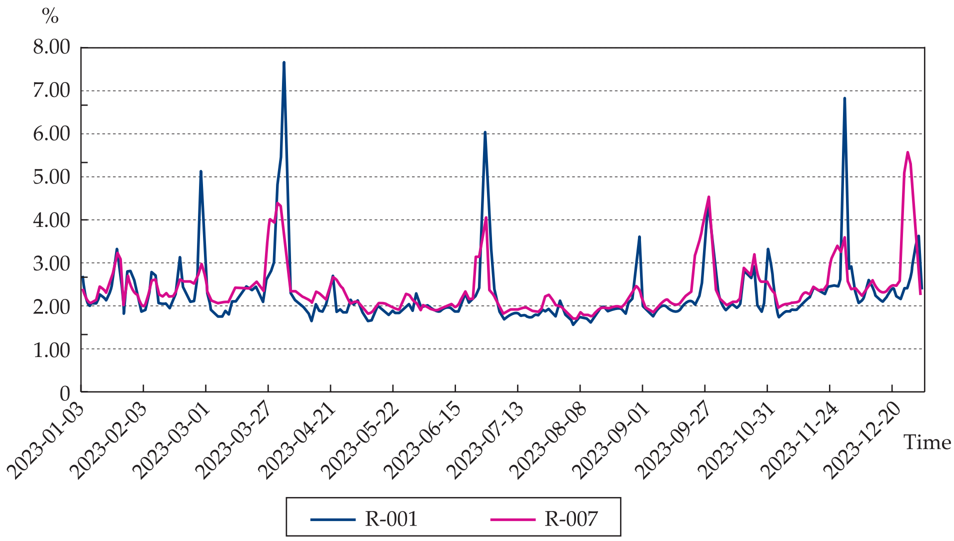

Figure 2.7 Moments of closing rates of general pledged repo on the SZSE in 2023

(Source: SZSE)

2.2.2 Main features of the bond repo market

2.2.2.1 The trading volume of bond repo continued to grow

The trading volume of interbank bond repo continued to rise and reported a year-on-year increase of 8.90 percent, 32.05 percent and 21.31 percent respectively from 2021 to 2023. In 2023, the trading volume of interbank pledged repo continued to increase, registering a year-on-year increase of 21.40 percent, down nearly 11 percentage points from the previous year; and the trading volume of outright repos decreased by 2.67 percent year on year, a decrease of 20.12 percentage points from the previous year (see Figure 2.8).

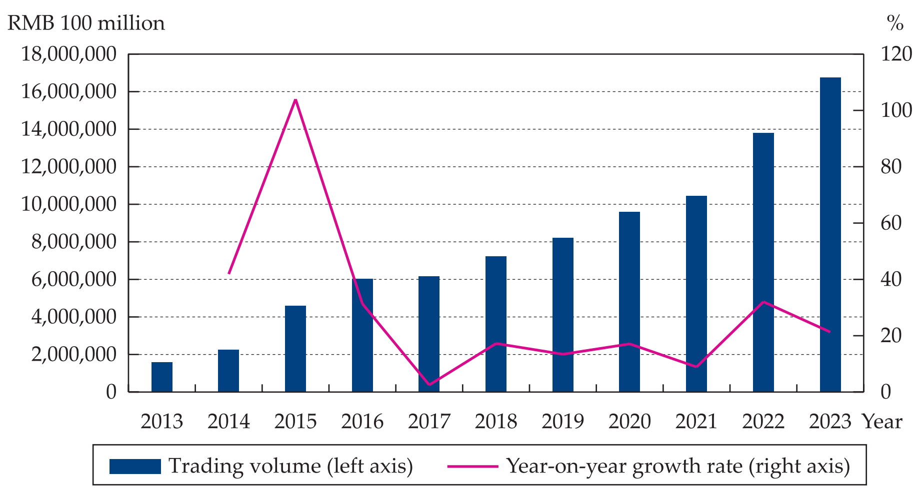

Figure 2.8 Trading volumes and growth rates of interbank bond repo from 2013 to 2023

(Source: CFETS)

2.2.2.2 Average daily balance of interbank pledged repos rose, and outright repos decreased, with O/N products trading dominating

In 2023, the average daily balance of interbank pledged repos was RMB 10.6 trillion, up 15 percent from the previous year; and the average daily balance of outright repos posted RMB 52.4 billion, down 12 percent from the previous year. The maturity structure of the interbank repo market generally remained stable, with O/N varieties remaining dominant and their share slightly increasing. In 2023, the share of O/N pledged repos registered 87.53 percent of the total, up 1.13 percentage points from the previous year; and the share of O/N outright repos posted 78.63 percent of the total, which was basically the same as the previous year.

2.2.2.3 Interest rates at the interbank market ran at a low level

In the interbank market, major money market interest rates rose steadily, fluctuating and converging with the open market reverse repo rate. The annual weighted averages of DR001 and DR007 increased by 15 bps and 12 bps month on month to 1.57 percent and 1.97 percent respectively; the annual weighted averages of R001 and R007 increased by 21 bps and 31 bps month on month to 1.71 percent and 2.29 percent respectively. Throughout the year, DR007 basically fluctuated around the OMO 7-day reverse repo rate, with the lowest and highest values being 1.36 percent and 2.43 percent respectively, and the median being 1.92 percent, up 22 bps from the previous month. The fluctuation range was 107 bps, narrowing by 7 bps month on month. Specifically, at the beginning of the year, the capital price moved towards the policy rates; from May to August, the DR007 rate trended downward with reduced price volatility; after September, the DR007 rate returned to 2 percent, slightly higher than the 7-day reverse repo rate; and as of end-2023, the weighted average lending rate was 3.83 percent, down 31 bps from the end of the previous year.

2.2.2.4 Net lending by large commercial banks increased significantly, and net borrowing by non-bank financial institutions increased

The net lending volume of large commercial banks increased significantly. The net lending volume of large commercial banks, policy banks, and joint-stock commercial banks were RMB 671.97 trillion, RMB 140.19 trillion, and RMB 50.74 trillion respectively, an increase of RMB 233 trillion, RMB 130.52 trillion, and a decrease of RMB 50.87 trillion respectively from the end of the previous year. The net borrowing volume by non-bank financial institutions increased. The largest net borrowers were fund companies, securities companies and specific asset management portfolios of fund companies, with a net borrowing of RMB 281.95 trillion, RMB 228.06 trillion and RMB 100.38 trillion respectively, an increase of RMB 50.59 trillion, RMB 52.68 trillion and RMB 23.92 trillion from the end of the previous year.

2.3 NCD market

2.3.1 Performance of the NCD market

In 2023, a total of 316 institutions issued NCDs, a decrease of 7 from the previous year. Altogether 27,000 RMB NCDs were issued, amounting to RMB 25.7 trillion and a total of 62 USD NCDs were issued, amounting to USD 11.38 billion. As of end-2023, the outstanding RMB NCDs stood at RMB 14.8 trillion, a year-on-year increase of 4.3 percent; and the outstanding USD NCDs posted USD 4.57 billion, a year-on-year increase of 128.5 percent.

In 2023, the cumulative turnover of RMB NCDs in the secondary market stood at RMB 253.63 trillion, up 9.33 percent year on year; and the cumulative turnover of foreign currency NCDs was RMB 151 million, a year-on-year increase of 33.6 percent. Specifically, foreign currency NCDs were all traded in spot bonds. RMB NCDs traded in pledged repos totaled RMB 190.21 trillion, up 8.14 percent year on year and accounting for 74.99 percent of the total; RMB NCDs traded in cash bonds was RMB 63.25 trillion, up 13.08 percent year on year and accounting for 24.94 percent of the total; RMB NCDs traded in outright repos was RMB 0.17 trillion, up 8.16 percent year on year and accounting for 0.07 percent of the total; and RMB NCDs traded in bond lending was RMB 3.446 billion, up 165.10 percent year on year.

2.3.2 Main features of the NCD market

2.3.2.1 The issuance volume went up and the outstanding volume slightly rose

In 2023, the issuance volume of RMB NCDs stood at RMB 25.70 trillion, a year-on-year increase of 25.35 percent. The average quarterly issuance volume stood at RMB 6.42 trillion. To be specific, the issuance volume in Q2 and Q4 were higher than the average while the volume in Q1 and Q3 were lower than the average. The volumes issued in the four quarters of 2023 registered RMB 5.99 trillion, RMB 6.77 trillion, RMB 6.20 trillion and RMB 6.74 trillion respectively.

In 2023, the outstanding volume of NCDs fluctuated upward. Throughout the year, six months witnessed negative growth, while the other six months saw positive growth. At end-2023, the outstanding volume of NCDs amounted to RMB 14.8 trillion, up RMB 0.61 trillion from end-2022 (see Figure 2.9).

In terms of issuer, the outstanding volume of NCDs issued by urban commercial banks, joint-stock commercial banks and large commercial banks registered the top three in 2023, accounting for 32.58 percent, 31.09 percent and 26.45 percent of the total, down 4.5 percentage points, down 2.0 percentage points and up 8.2 percentage points respectively from last year. Rural commercial banks and cooperative banks accounted for 8.50 percent, down 0.7 percentage points year on year (see Figure 2.10).

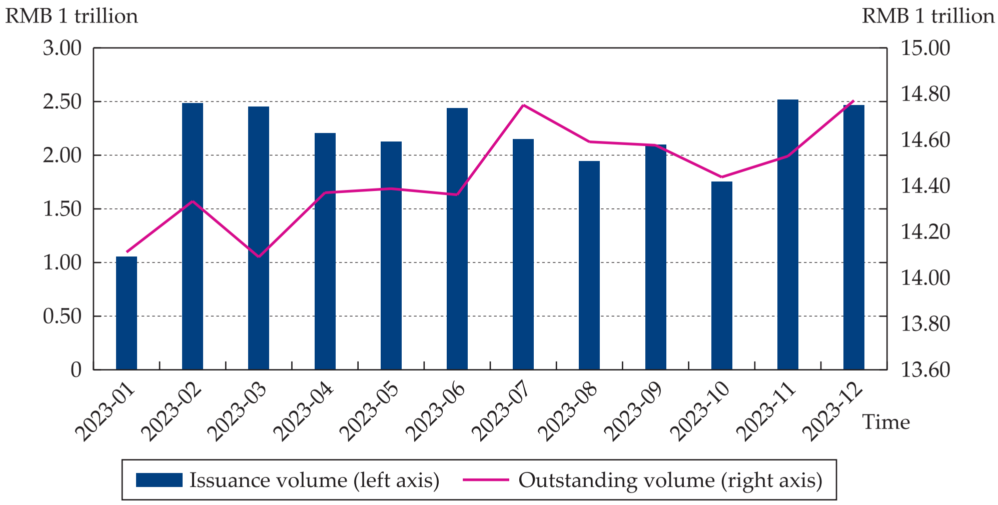

Figure 2.9 Monthly issuance of NCDs in 2023

(Source: CFETS)

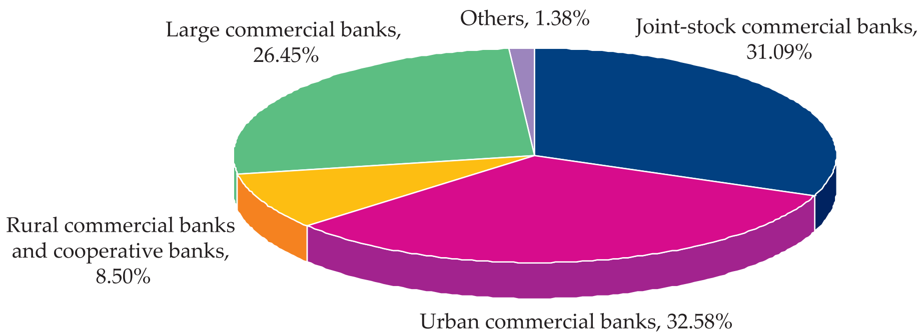

Figure 2.10 Structure of NCD issuers in 2023

(Source: CFETS)

2.3.2.2 Fluctuations in issuing rates of NCDs were significant, with 1-year NCD rates temporarily surpassing MLF rate of the same maturity

In 2023, the issuing rates of NCDs underwent N-shaped movements. At the beginning of the year, credit supply increased and bank liquidity tightened. The issuing rates of 3-month and 1-year NCDs fluctuated upward, with the latter briefly exceeding the policy rates. On March 17, the PBOC announced a sweeping RRR cut, resulting in the fact that the issuing rates of NCDs fell accordingly. From March to September, the issuing rates of NCDs showed a downward trend while in Q4, the rates rose again due to changes in supply and demand, slightly exceeding the MLF rate of the same maturity. Specifically, from August to December, net financing of treasury bonds and local government bonds was RMB 5.78 trillion, a year-on-year increase of 195.8 percent, increasing the liability pressure on commercial banks. The newly implemented *Administrative Measures for the Capital of Commercial Banks* raised the risk weights for investment products with maturities longer than three months, impacting the NCD investment demand of small and medium-sized banks (see Figure 2.11).

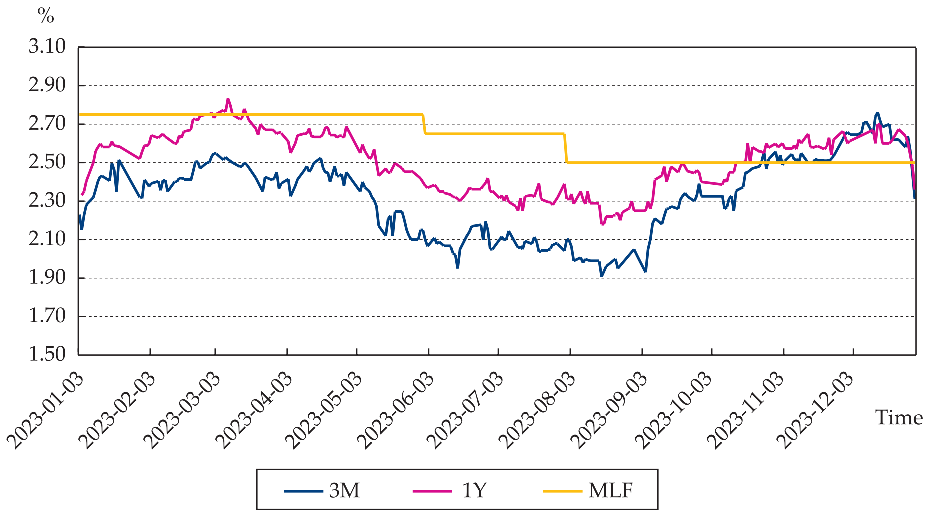

Figure 2.11 Movement of issuing interest rates of NCDs issued by major joint-stock commercial banks in 2023

(Source: CFETS)

2.3.2.3 Trading scale remained among the top three, with funds holding the largest position

In 2023, the total face value of NCDs in the secondary market registered RMB 64.05 trillion, representing 20.99 percent of cash bond market transactions and ranking third after policy financial bonds and treasury bonds. From the perspective of institution types, the top three net buyers of NCDs were rural commercial banks and cooperative banks, wealth management products, and rural credit cooperatives, with a net purchase of RMB 1,200.712 billion, RMB 810.778 billion and RMB 741.124 billion, accounting for 16.40 percent, 11.08 percent and 10.12 percent of the total respectively. The top three net sellers were urban commercial banks, securities companies and joint-stock commercial banks, with net sales of RMB 3,316.878 billion, RMB 1,923.870 billion and RMB 1,762.183 billion, accounting for 45.31 percent, 26.28 percent and 24.07 percent of the total respectively. As of end-2023, the three largest holders of NCDs were funds, rural commercial banks and cooperative banks, and wealth management products, with holdings amounting to RMB 3,934.398 billion, RMB 1,410.426 billion, and RMB 1,114.321 billion respectively. Over the year, the average yields on 1-year and 3-month AAA-rated NCDs were 2.53 percent and 2.37 percent respectively, and the variances were 0.20 and 0.06 respectively, the former higher than last year's 0.06 and the latter lower than last year's 0.11.

2.3.2.4 Maturity structure of NCDs was more balanced

Since 2023, liquidity in the NCD market has remained adequate at a reasonable level, and the maturity structure of NCDs has become more balanced. On one hand, the maturity structure of issued NCDs has shifted. The issuance proportion of 1-year NCDs declined by 14 percentage points from the previous year to 31.7 percent, while the issuance proportions of 1-month, 3-month, 6-month, and 9-month NCDs increased by 2, 7, 2, and 2 percentage points, respectively, reaching 12.7 percent, 25.8 percent, 18.6 percent, and 11.1 percent, making the maturity structure more balanced. On the other hand, the total issuance volume of NCDs rose, reaching RMB 25.70 trillion in 2023, an increase of 25.3 percent year on year.

2.4 Outlook of the money market

In 2024, China will continue to pursue a sound monetary policy that is flexible, moderate, precise and effective, ensuring that the AFRE and the money supply are in line with the economic growth and the expected price level. In this context, the liquidity of China's banking system will remain adequate at a reasonable level, and the interbank lending, bond repo and NCD markets are expected to continue to develop in a stable and sound manner. First, the money market system will become more refined. Second, the liquidity management functions of the interbank lending market will be further improved. Third, the bond repo market is expected to continue expanding in scale, with ongoing structural optimization and innovation in trading varieties. Fourth, the issuance and trading mechanism for NCDs will be further optimized.

Chapter 3 Bill Market

In 2023, the bill market scaled up steadily and performed generally stable, extending stronger support for small and medium-sized enterprises (SMEs), key areas and weak links, and continuing to play a prominent role in promoting inclusive finance, technology finance and green finance. Solid progress was made in enhancing the service capacity of the bill market infrastructure for supply and industrial chains. The new generation bill business system achieved comprehensive coverage. The Administrative *Measures for the Acceptance, Discount and Central Bank Discount of Commercial Drafts* were smoothly implemented, further consolidating the foundation for the long-term healthy development of the bill market.

3.1 Performance of the bill market

3.1.1 Bill acceptances grew steadily

In 2023, bill acceptances throughout the market amounted to RMB 31.3 trillion, up 14.5 percent year on year, 1.1 percentage points higher than that of 2022. Specifically, bankers' acceptances totaled RMB 27.1 trillion, up 17.3 percent; trade acceptances totaled RMB 3.6 trillion, up 3.6 percent; and finance companies' acceptances totaled RMB 0.7 trillion, down 17.3 percent (see Figure 3.1). Across the four quarters of 2023, acceptances decreased by 15.7 percent in Q1 and 7.7 percent in Q2 compared to the same period last year, and increased by 36.4 percent and 47.1 percent in Q3 and Q4, respectively. As of end-2023, outstanding bill acceptances throughout the market stood at RMB 18.6 trillion, down 2.7 percent year on year. In addition, outstanding acceptances to the real economy accounted for 4.1 percent of the AFRE, down 0.4 percentage points from end-2022 but up 0.1 percentage point from end-June[①].

① To ensure consistent statistical standards, the outstanding acceptances to the real economy are calculated as the sum of undiscounted bankers' acceptances and bill financing. Data for undiscounted bankers' acceptances is sourced from the PBOC's Aggregate Financing to the Real Economy (Stock), while the bill financing data is coursed from the PBOC's Summary of Sources and Uses of Credit Funds of Financial Institutions (in RMB).

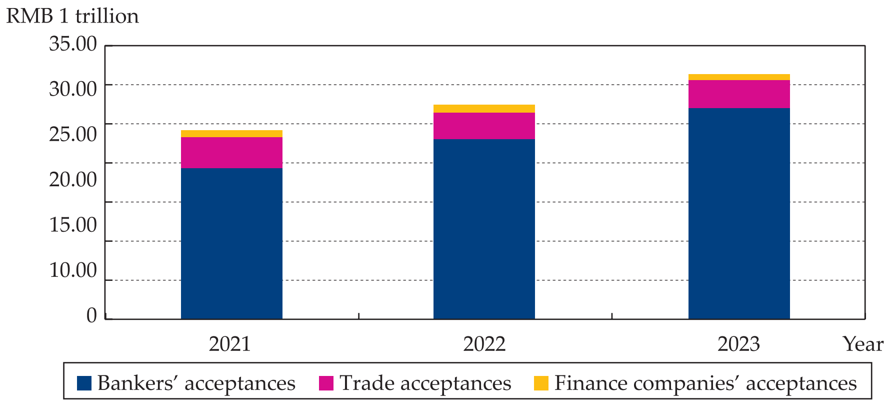

Figure 3.1 Changes in volumes of bill acceptances throughout the market from 2021 to 2023

3.1.2 Endorsed circulation increased year on year

In 2023, bill endorsements throughout the market amounted to RMB 62.7 trillion, up 7.0 percent year on year, 3.4 percentage points higher than that of the previous year. Specifically, endorsements of bankers' acceptances totaled RMB 59.4 trillion, up 7.9 percent; endorsements of trade acceptances totaled RMB 2.0 trillion, up 2.0 percent; and endorsements of finance companies' acceptances totaled RMB 1.3 trillion, down 18.1 percent (see Figure 3.2). Across the four quarters of 2023, endorsements decreased by 10.7 percent and 7.4 percent in Q1 and Q2, respectively, compared to the same period in 2022, and increased by 16.2 percent and 31.0 percent in Q3 and Q4, respectively. Average endorsed circulations throughout the market① in 2023 registered 5.5 times, basically the same as that of the previous year.

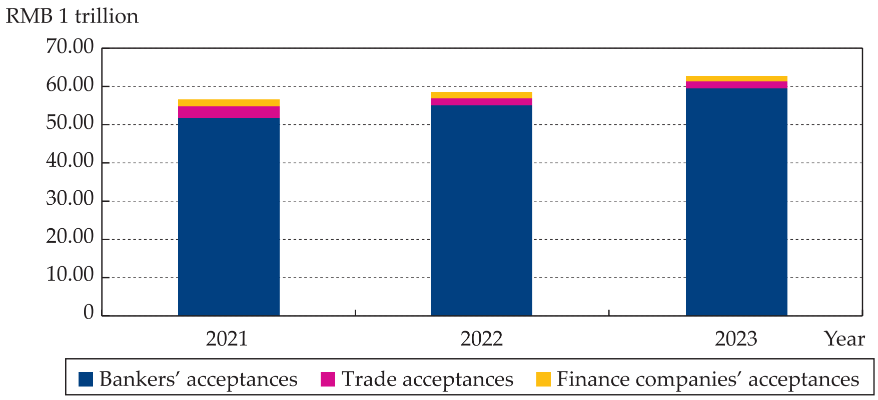

Figure 3.2 Changes in volumes of bill endorsements from 2021 to 2023

① Average endorsed circulations throughout the market = Total number of endorsements throughout the market during the reporting period / Number of bills involved in endorsements.

3.1.3 Total discount financing increased year on year

In 2023, bill discounts throughout the market amounted to RMB 23.8 trillion, up 22.4 percent year on year, 7.2 percentage points lower than that of the previous year. The weighted average discount rate throughout the market in 2023 was 1.78 percent, down 17 bps from the previous year. Specifically, discounted bankers' acceptances totaled RMB 21.7 trillion, up 22.3 percent; discounted trade acceptances totaled RMB 1.8 trillion, up 37.5 percent; and discounted finance companies' acceptances totaled RMB 0.4 trillion, down 17.1 percent (see Figure 3.3). Across the four quarters of 2023, discounts decreased by 18.7 percent and 7.0 percent year on year respectively in Q1 and Q2, and increased by 51.4 percent and 69.4 percent in Q3 and Q4, respectively. As of end-2023, outstanding bill discounts throughout the market registered RMB 13.3 trillion, up 2.1 percent from end-2022 and 9.4 percent from end-June. As of end-2023, outstanding bill financing accounted for 8.5 percent of outstanding RMB loans to enterprises and public institutions, down 0.9 percentage points from end-2022 and up 0.5 percentage points from end-June①.

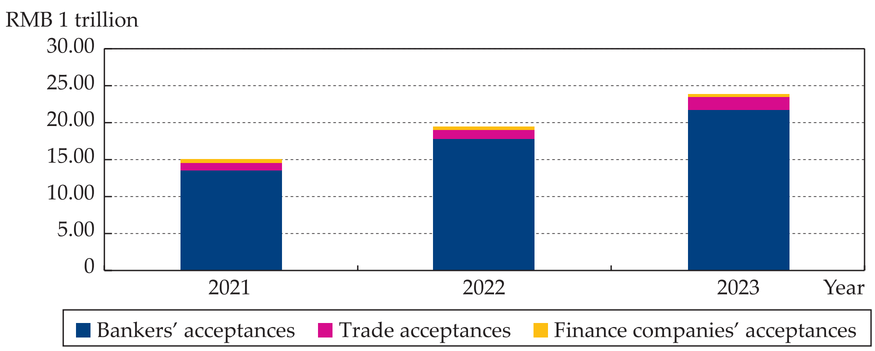

Figure 3.3 Changes in volumes of bill discounts from 2021 to 2023

3.1.4 Transactions grew steadily in the bill market

In 2023, the volume of bill transactions (including interbank discounts and repos) throughout the market amounted to RMB 104.9 trillion, up 19.1 percent year on year. Specifically, interbank discounts totaled RMB 73.4 trillion, up 26.1 percent, 2.1 percentage points higher than the growth rate in 2022; and the transaction volume of bill repos totaled RMB 31.5 trillion, up 5.3 percent, 24.8 percentage points lower than that in 2022. To be specific, pledged repos totaled RMB 29.7 trillion, up 7.1 percent; and outright repos totaled RMB 1.8 trillion, down 17.5 percent.

① Source: Summary of Sources and Uses of Credit Funds of Financial Institutions (in RMB) by the PBOC.

3.2 Main features of the bill market

3.2.1 Banking financial institutions showed a significant increase in the volume of bill acceptances and discounts

In 2023, acceptances of joint-stock commercial banks amounted to RMB 11.6 trillion, up 11.1 percent year on year; acceptances of state-owned commercial banks and urban commercial banks reached RMB 6.9 trillion and RMB 6.8 trillion respectively, up 31.2 percent and 16.4 percent; acceptances of rural financial institutions stood at RMB 1.4 trillion, up 19.9 percent. Throughout the year, the volumes of bill discounts of joint-stock commercial banks, state-owned commercial banks, urban commercial banks and rural financial institutions registered RMB 8.6 trillion, RMB 7.5 trillion, RMB 5.2 trillion and RMB 2.0 trillion, respectively, representing year-on-year increases of 17.3 percent, 29.1 percent, 18.9 percent and 53.7 percent; and the volume of bill discounts of finance companies totaled RMB 0.4 trillion, a decrease of 27.8 percent (see Figure 3.4).

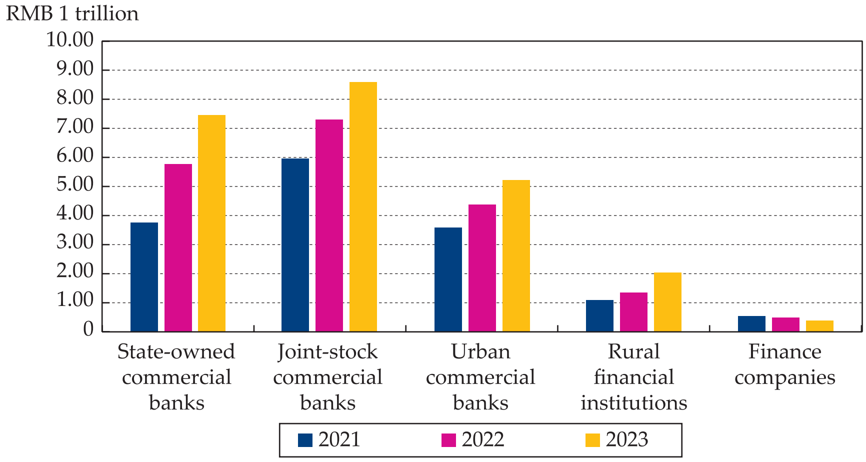

Figure 3.4 Changes in volumes of bill discounts by types of institutions from 2021 to 2023

3.2.2 Major market entities remained active in bill transactions

Excluding internal transactions, interbank discounts of rural financial institutions, state-owned commercial banks, urban commercial banks and joint-stock commercial banks increased by 23.2 percent, 20.5 percent, 16.8 percent and 14.0 percent respectively from the previous year and those at securities companies decreased by 20.4 percent year on year①. Repos of joint-stock commercial banks increased by 19.0 percent from 2022. Repos of state-owned commercial banks and securities companies

① The volume of interbank discounts of each type of institution is calculated by adding up the volume of purchases and the volume of sales, the same hereinafter.

both grew by 11.8 percent year on year. Repos of rural financial institutions rose by 3.3 percent, while those of urban commercial banks decreased by 3.8 percent① (see Figure 3.5 and Figure 3.6).

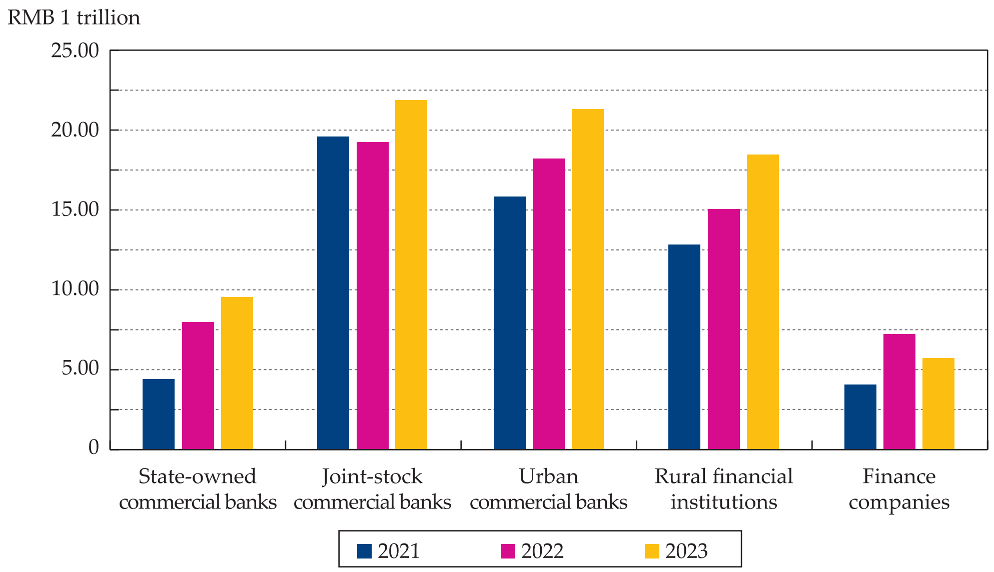

Figure 3.5 Changes in volumes of interbank discounts by types of institutions from 2021 to 2023 (excluding internal transactions)

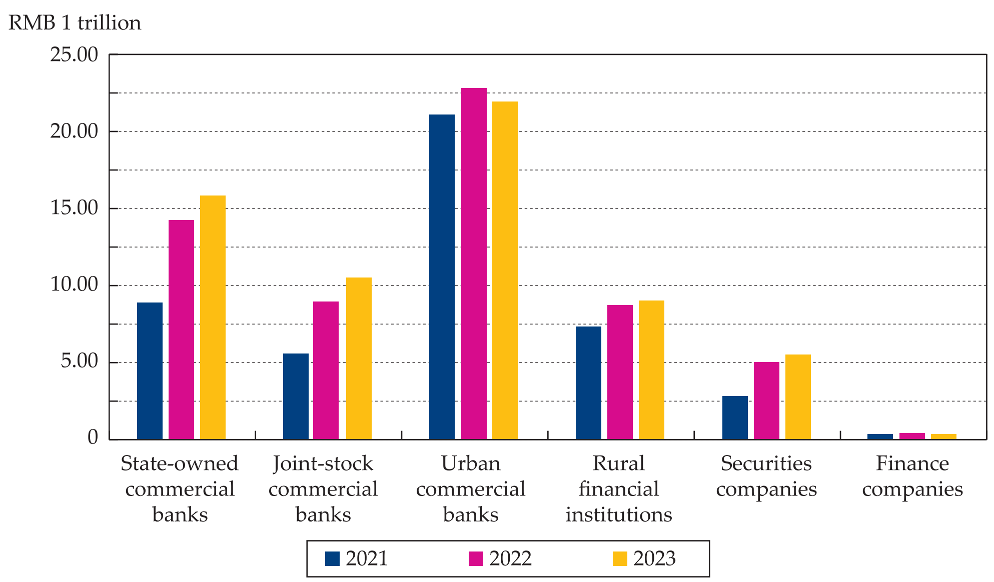

Figure 3.6 Changes in volumes of bill repos by types of institutions from 2021 to 2023

① The volume of repo transactions of each type of institution is calculated by adding up the volume of repos and the volume of reverse repos, the same hereinafter.

3.2.3 The pattern of capital flows among financial institutions remained stable

In 2023, excluding internal transactions, rural financial institutions and state-owned commercial banks were the main net buyers in the interbank discount market, while joint-stock commercial banks and urban commercial banks were the main net sellers. In the repo market, state-owned commercial banks were the major lenders, and urban commercial banks, securities companies and rural financial institutions were the major borrowers. The pattern of capital flows in bill transactions among financial institutions remained largely unchanged (see Figure 3.7 and Figure 3.8).

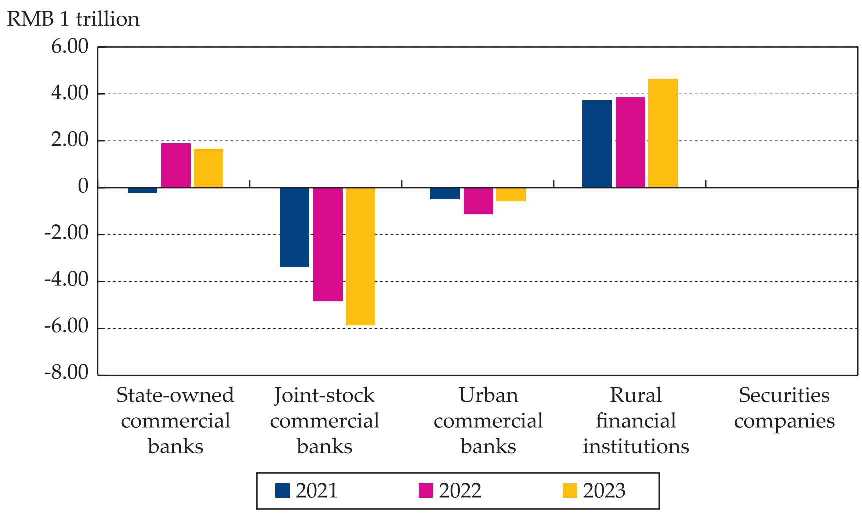

Figure 3.7 Changes in net buying volumes of interbank discounts by types of institutions from 2021 to 2023 (excluding internal transactions)

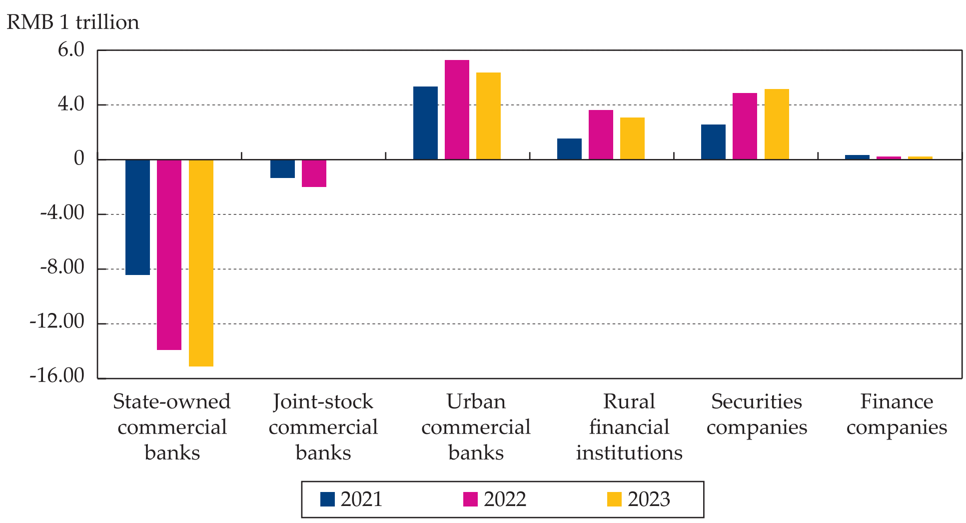

Figure 3.8 Changes in volumes of net borrowing through bill repos by types of institutions from 2021 to 2023

3.3 Product innovation, institutional arrangements and infrastructure construction

3.3.1 The functionality of the supply chain bill platform was further enhanced to upgrade the quality of the industrial economy

First, a channel for automatically processing supply chain bill funds at financial institutions was established, enabling bill-holding enterprises registered with the platform to receive due payments in real time through their account-opening institutions, thereby improving capital turnover efficiency for these enterprises. Second, the requirement for enterprises to submit transaction background materials both online and offline during the discounting process was eliminated to enhance handling efficiency and facilitate discount financing for enterprises. Third, the mandatory input fields for enterprise registration information on the platform were optimized and adjusted to reduce the operational burden on enterprises. Fourth, the function for uploading transaction relationship materials was continuously enhanced to meet the practical needs for information integration between core supply chain enterprises and upstream and downstream enterprises within the industrial chain. Fifth, the client functions of the supply chain bill platform were integrated with those of the new generation bill business system, providing systematic support for small- and medium-sized financial institutions to engage in supply chain bill services throughout the entire lifecycle. Sixth, the risk prevention and control mechanism for supply chain bills was strengthened by introducing risk control features such as enterprise information reporting, enterprise name verification and active management of bill accounts. Strict controls were implemented on uploading transaction relationship background materials during the issuance of supply chain bills, and regular authenticity checks on transactions were conducted to ensure the platform fulfilled its risk management responsibilities. As of end-2023, a total of 24 supply chain platforms completed system integration with the Shanghai Commercial Paper Exchange (SHCPE), and more than 24,000 enterprises registered with the platform, with businesses exceeding RMB 440 billion. Among these, seven supply chain platforms were newly integrated in 2023, contributing RMB 223.47 billion in supply chain bill businesses, a year-on-year increase of 46.7 percent.

3.3.2 Continued efforts were made to promote "Discount Connect" in support of inclusive finance

In 2023, "Discount Connect" actively supported inclusive finance, with MSMEs making up 90.5 percent of enterprises newly participating in the business, and bills of RMB 1 million or less accounting for 45.4 percent of discounted bills. The weighted average discount rate through "Discount Connect" was 1.80 percent, 175 bps lower than the average level of one-year LPR, saving enterprises nearly RMB 2 billion in financing costs. "Discount Connect" also provided substantial support for technology finance and green finance, facilitating bill discounts totaling RMB 13.26 billion for technology enterprises and RMB 8.92 billion for green enterprises in 2023. As of end-2023, "Discount Connect" had a total of over 25,000 registered enterprises, facilitating bill discounts exceeding RMB 500 billion. In 2023 alone, the business saw more than 5,000 new enterprise registrations, with facilitated bill discounts totaling RMB 223.72 billion, up 33.4 percent year on year.

3.3.3 Intelligent online payment was enhanced to reduce burdens and boost efficiency in manufacturing

In 2023, "CPPAY" introduced new features such as intelligent segmented payment and quick payment, continuously unlocking the business potential for all participants. Throughout the year, technology manufacturing enterprises using "CPPAY" accounted for 62.7 percent of participants, with their transactions making up 86.9 percent of the total, increasing about 6 percentage points from the previous year. The service made sufficient use of existing bills worth nearly RMB 500 million for micro and small technology manufacturing enterprises, effectively easing their cash flow pressures. Moreover, transactions on industrial goods procurement platforms that primarily serve the manufacturing sector saw a 33.9 percent year-on-year increase. As of end-2023, 11 partner financial institutions, 210 institutions that have access to the e-bill system and 44 B2B platforms participated in the "CPPAY" service, with payment orders reaching RMB 105.86 billion and bill payments totaling RMB 79.95 billion. Specifically, 2023 saw RMB 13.26 billion in payment orders placed and RMB 12.35 billion in bill payments.

3.4 Risk prevention and resolution

3.4.1 Remarkable results were achieved in information disclosure

The implementation of the Administrative *Measures for the Acceptance, Discount and Central Bank Discount of Commercial Drafts* introduced new requirements for bill information disclosure. First, information disclosure requirements were expanded to bankers' acceptances, ensuring that all types of bill acceptors were covered. Second, measures to control overdue payments and delayed disclosures were adopted, further preventing risk accumulation and spillover effects. Since the *Measures* took effect, information disclosure rates have steadily increased. As of end-2023, the information disclosure platform had about 83,000 registered users, with both acceptance information disclosure rate and credit information disclosure rate exceeding 97 percent.

3.4.2 The capability of market risk monitoring and early warning was continually enhanced

In 2023, monitoring of bill market risks was conducted in an orderly market, with an overall improvement in the risk monitoring and early warning capability. First, the risk prevention and control system was further enhanced, broadening both the depth and scope of risk monitoring. Second, monitoring efforts were strengthened in key areas, such as certain small- and medium-sized financial institutions, to improve the effectiveness of risk management. Third, specialized training sessions were actively organized, along with initiatives to promote awareness and education on risk prevention and control in the bill market.

3.4.3 The risk management mechanism of the new generation bill business system was continually refined

Since the launch of the new generation bill business system, ongoing efforts have been made to strengthen its risk prevention and control mechanism. By integrating business data and information across the entire lifecycle of bills, the system has effectively addressed challenges such as limited data analysis and risk monitoring caused by the coexistence of the Electronic Commercial Draft System (ECDS) and the Commercial Paper Exchange System (CPES) as well as fragmented market data. First, the system introduced features like enterprise information filing and active bill account management, prioritizing and reinforcing early enterprise identity verification and access control. Second, it expanded the disclosure and inquiry of acceptance and credit information, further enhancing market credit restraint. Third, it improved automated bill maturity processing, reducing operational risks and ethical hazards in bill payment. Fourth, by establishing a bill business monitoring platform, the system utilized big data analysis to monitor risk behaviors by acceptors and improved the emergency response mechanism for risky bills, significantly enhancing its ability to manage complex risks.

3.5 Outlook of the bill market

In 2024, with the full rollout of the new generation bill business system, the continued expansion of innovative applications of bill market infrastructure, the ongoing improvement of the credit system for commercial drafts, and the steady optimization of the market environment, the bill market is expected to achieve sustained, appropriate growth and effective upgrades. By leveraging the advantages of bills such as low costs, high efficiency and strong policy alignment, the bill market will play an active role in deepening the supply-side structural reform of the financial sector, driving progress in technology finance, green finance, inclusive finance, old-age finance and digital finance, and supporting high-quality development of the real economy.

BOX 1 The role of the bill market in supporting high-quality development of the real economy was further enhanced

In 2023, the bill market scaled up steadily, with market transactions remaining active, risk prevention and control mechanisms continuously improved, and the market environment *further optimized. The implementation of the Administrative Measures for the Acceptance, Discount and Central Bank Discount of Commercial Drafts has reinforced the foundation for the long-term stable and healthy development of the bill market. The optimization and innovation of bill market infrastructure services have underscored the advantages of the bill market in supporting the development of key industries and SMEs and enhanced its role in promoting high-quality development of the real economy.*

1. The bill market extended greater support for the real economy with a clear orientation and strengthened resources

With a clearer positioning, improved services and functions, and sustained strong resource support, the bill market provided greater support for the real economy in 2023, especially for SMEs and basic scientific research, playing a positive role in supporting macroeconomic recovery and promoting cost reduction and efficiency enhancement for businesses. First, bill use by enterprises maintained steady growth. In 2023, the total amount of bills used by enterprises[①] *reached RMB 117.9 trillion and the number of enterprise users of bills*[②] *totaled 3.191 million, up 11.8 percent and 3.6 percent year on year, respectively. Second, the bill market provided robust and effective support for key areas and weak links. In 2023, the amount of bills used by MSMEs hit RMB 87.2 trillion, accounting for 74.0 percent of the total; and the number of MSME users of bills reached 3.128 million, accounting for 98.0 percent of the total. The amount of bills used by scientific research and technical services as well as information transmission, software and information technology services increased by 28.8 percent and 22.1 percent respectively from 2022, 17.0 percentage points and 10.4 percentage points higher than the average growth rate throughout the market. Third, the bill market continued to serve as an effective channel connecting monetary policy with the real economy, demonstrating its advantages of strong policy alignment and high transmission efficiency. In 2023, the weighted average discount rate throughout the market registered 1.78 percent, 177 bps lower than the average one-year LPR, potentially saving enterprises over RMB 180 billion in financing costs.*

2. Quality and efficiency of support for the real economy were enhanced through expanded product application and a more targeted response to needs

First, services and functions of the bill market infrastructure were further upgraded. By thoroughly analyzing market demands and pinpointing pain points, the SHCPE made

① The amount of bills used by enterprises refers to the total amount of bills acceptances, endorsements and discounts undertaken by enterprises throughout the market during the reporting period, the same hereinafter.

② The number of enterprise users of bills refers to the total number of enterprises that have undertaken bill acceptances, endorsements and discounts throughout the market during the reporting period, the same hereinafter.

targeted improvements to product functions and service methods, effectively broadening the application of various innovative products and thereby meeting the demand for bills in various areas and increasing service efficiency. As of end-2023, the SHCPE's two information products, Jipiaobao and Piaoxinbao, covered 47 group enterprises and 68 market institutions, respectively. Second, financial institutions continued to advance innovation in bill services. Banking institutions, especially state-owned commercial banks, increased their support for enterprises by providing tailored services to "active clients", effectively activating "long-tail clients" and strategically re-engaging "dormant clients" to unlock the demand for bills. In 2023, the volume of bill acceptances and bill discounts by state-owned banks reached RMB 6.9 trillion and RMB 7.5 trillion, respectively, up 31.2 percent and 29.1 percent from 2022. Furthermore, banking institutions simplified approval procedures, shortened transaction chains, and enhanced online service capabilities by leveraging fintech, effectively facilitating the efficient use of bills by enterprises, thereby improving the bill use experience and elevating the quality of bill services.

3. Services for the real economy were strengthened with policy requirements implemented and system development advanced

First, since the Administrative Measures for the Acceptance, Discount and Central Bank Discount of Commercial Drafts took effect, the SHCPE, as a key market infrastructure, has adjusted relevant parameters and statistical indicators in the bill business system based on bill type and maximum term. It has actively promoted information disclosure, reinforced market restraints and enhanced risk prevention and control. Market institutions have supported these efforts by adapting business rules, adjusting processes and communicating changes to clients, ensuring effective implementation of the new policy requirements. Second, in terms of system development, the SHCPE and market institutions have coordinated resources and strengthened collaboration to continuously optimize the functions of the new generation bill business system, expand its application and promote the steady migration of ECDS business to the new system, thereby significantly increasing the market coverage and penetration of the new system. As of end-2023, the new system covered nearly 100 percent of market participants and the proportion of bill business handled through the new system also saw a notable rise. Overall, with the smooth implementation of the new policy and ongoing system development, the bill market is expected to see a clearer positioning, enhanced services and functions and more efficient supply-demand alignment, enabling it to better meet the diverse, end-to-end business needs of enterprises and market institutions. As a result, it can better serve MSMEs and play a greater role in enhancing the resilience of supply and industrial chains, supporting key areas and weak links, and promoting high-quality economic development.

Chapter 4 Bond Market

In 2023, China's bond market operated stably, with the volume of bond issuance growing over the previous year, bond custody increasing steadily, cash bond transactions remaining active, and investor structure generally stable. The rapid development of innovative bonds such as green bonds facilitated the implementation of the national strategy. The market further enhanced coordinated infrastructure management and interconnectivity, and its opening-up was steadily advanced. As a result, the high-quality development of the bond market was promoted continuously and its quality and efficiency in serving the real economy was further enhanced.

4.1 Performance of the bond market

4.1.1 Primary market

4.1.1.1 Bond issuance grew

In 2023, a total of RMB 71.0 trillion of bonds were issued, up 14.8 percent year on year. Specifically, the interbank bond market saw an issuance volume of RMB 61.4 trillion, up 9.6 percent year on year, accounting for 86.5 percent of the total. The exchange-traded bond market reported an issuance volume of RMB 9.6 trillion, up 64.4 percent from the previous year, accounting for 13.5 percent of the total.

The top three types of bonds in terms of issuance volume were NCDs, corporate debenture bonds and treasury bonds, amounting to RMB 25.8 trillion, RMB 14.0 trillion and RMB 11.0 trillion, up 25.7 percent, 1.8 percent and 14.3 percent year on year respectively (see Table 4.1).

Table 4.1 Issuance of major bonds in the bond market in 2023

Type of bonds	Issuance / RMB 100 million	YoY growth / %	Type of bonds	Issuance / RMB 100 million	YoY growth / %
Treasury bonds	110,100.6	14.3	Credit asset-backed securities	3,485.2	4.2
Local government bonds	93,237.0	26.8	NCDs	257,814.8	25.7
Financial bonds	101,815.8	4.4	Others	3,391.3	-31.8
Corporate debenture bonds	140,157.0	1.8	Total	710,001.7	14.8

Source: China Securities Regulatory Commission (CSRC), China Central Depository & Clearing Co., Ltd. (CCDC) and Shanghai Clearing House (SHCH).

Notes: 1. Financial bonds include China Development Bank (CDB) and policy bank bonds, short-term financing bonds of securities companies, and interbank and exchange-traded financial bonds. In particular, interbank financial bonds refer to financial bonds issued by incorporated financial institutions established in China, including general financial bonds, subordinated debts, hybrid capital bonds, tier-2 capital instruments and perpetual bonds issued by commercial banks, supplementary capital bonds issued by insurance companies, and bonds issued by non-banking institutions such as auto finance companies.

2. Corporate debenture bonds include debt financing instruments of non-financial enterprises, asset-backed notes, enterprise bonds, corporate bonds and exchange asset-backed securities.

3. Others include bonds issued by Central Huijin Investment Ltd., debt financing plans of Beijing Financial Assets Exchange (BFAE), international institution bonds and standardized notes.

4.1.1.2 Custody volume secured steady growth

As of end-2023, the bond in custody was RMB 157.9 trillion, up 9.1 percent year on year (see Figure 4.1), of which RMB 137.0 trillion was in the interbank bond market, up 9.4 percent year on year and accounting for 86.7 percent of the total, and RMB 20.9 trillion was in the exchange-traded market, up 7.3 percent year on year and accounting for 13.3 percent of the total.

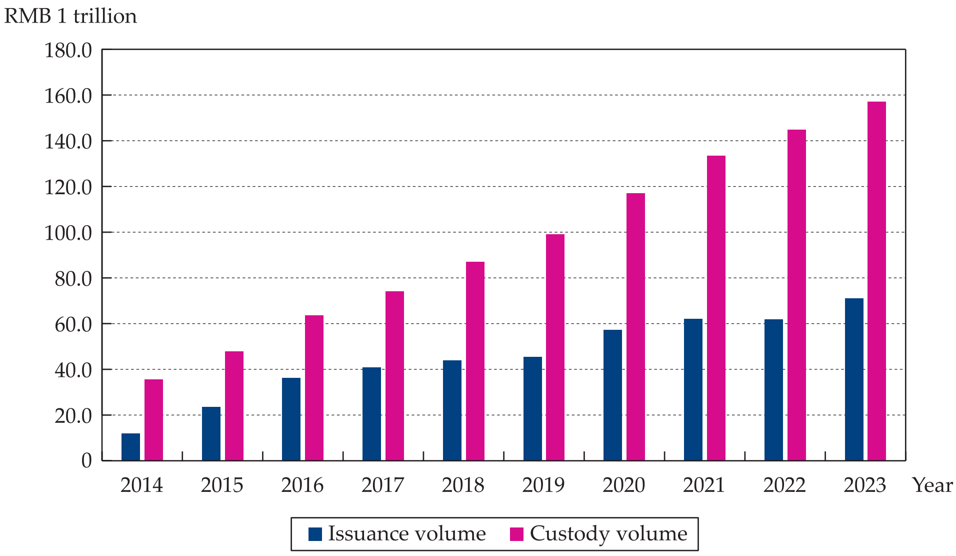

Figure 4.1 Bond issuance and custody volumes in the bond market from 2014 to 2023
(Source: CSRC, CCDC and SHCH)

4.1.2 Secondary market

4.1.2.1 Cash bond transactions saw significant growth

In 2023, cash bond transactions totaled RMB 307.3 trillion, up 13.3 percent year on year, of which RMB 46.4 trillion was traded at the exchanges, up 21.9 percent year on year, and RMB 196.14 billion was traded at the OTC bond market.

In terms of bond types, the top four frequently traded bonds were policy bank bonds, treasury bonds, NCDs, and medium-term notes, accounting for 31.1 percent (down 2.1 percentage points year on year), 23.3 percent (up 5.4 percentage points year on year), 17.9 percent (down 0.2 percentage points year on year) and 4.1 percent (down 0.2 percentage points year on year) of the total trading volumes respectively (see Figure 4.2).

In terms of maturities of traded bonds in the interbank bond market, bonds with a maturity of 0~1 year[①], 1~3 years, 3~5 years, 5~7 years, 7~10 years and more than 10 years recorded

① 1 to 3-year bonds include 3-year bonds but not 1-year ones. The same applies to the following categories.

a trading volume of RMB 106.8 trillion, RMB 40.5 trillion, RMB 29.0 trillion, RMB 12.2 trillion, RMB 95.5 trillion and RMB 23.3 trillion, accounting for 34.7 percent, 13.2 percent, 9.4 percent, 4.0 percent, 31.1 percent and 7.6 percent respectively (see Figure 4.3).

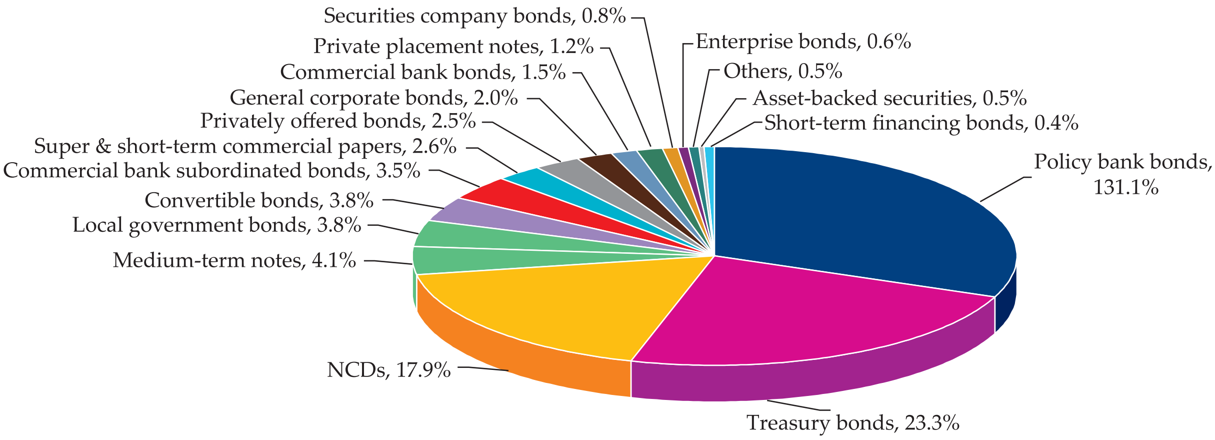

Figure 4.2 Trading structure of cash bond transactions in the bond market in 2023

(Source: CFETS, SSE and SZSE)

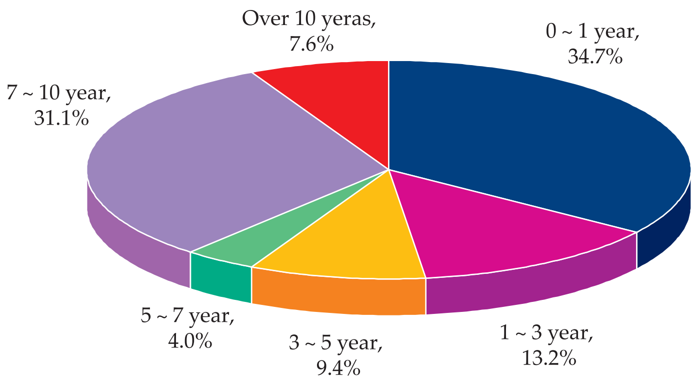

Figure 4.3 Term structure of cash bond transactions in the interbank bond market in 2023

(Source: CFETS)

4.1.2.2 Bond price indices rose

Bond price indices generally followed an uptick trend. The ChinaBond Aggregate Index rose from 216.3 at end-2022 to 226.4 at end-2023, an increase of 4.6 percent over the year; the SHCH Interbank Credit Bond Composite Index rose from 140.6 at end-2022 to 146.6 at end-2023, an increase of 4.2 percent over the year; the SSE Corporate Bond Index rose from 226.5 at end-2022 to 234.5 at end-2023, an increase of 3.5 percent over the year; the SZSE Corporate Bond Index rose from 197.4 at end-2022 to 205.5 at end-2023, an increase of 4.0 percent over the year (see Figure 4.4).

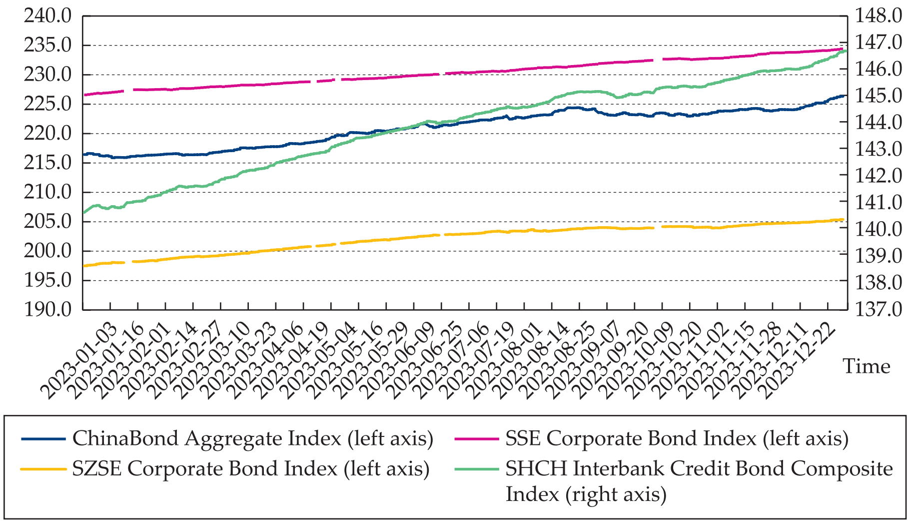

Figure 4.4 Trend of major bond indices in 2023

(Source: CCDC, SHCH, SSE and SZSE)

4.2 Main features of the bond market

4.2.1 Bond yields fluctuated downwards and credit spreads declined overall

In 2023, the yields on government-backed bonds fluctuated downward throughout the year. From January to February, relevant policies on stabilizing economic growth brought up expectations of loose credit policies, and the yields went up. From March to August, the PBOC cut the RRR and interest rates, with the yields registering a continuing drop. From September to October, more treasury bonds were issued, and the yields rebounded. From November to December, the yields rose first and then fell, driving a rise in interest rate cut expectations and a rapid decline in yields amid fluctuations. As of end-2023, yields on 1-year, 3-year, 5-year, 7-year and 10-year treasury bonds were 2.08 percent, 2.29 percent, 2.40 percent, 2.53 percent and 2.56 percent, respectively, down 3 bps, 12 bps, 23 bps, 28 bps and 27 bps from the beginning of the year (see Figure 4.5).

Yields on corporate debenture bonds showed a similar trend as treasury bonds in 2023. Yields declined in Q1 and Q2, remained low in Q3, and fluctuated slightly downward in Q4. As of end-2023, yields on 1-year, 3-year and 5-year medium- and short-term notes (AAA-rated) were 2.52 percent, 2.71 percent and 2.94 percent respectively, down 13 bps, 42 bps and 57 bps from the beginning of the year (see Figure 4.6).

In terms of credit spreads, corporate debenture bonds showed an overall downward trend throughout the year. As of end-2023, credit spreads on 1-year, 3-year and 5-year medium- and short-term notes (AAA-rated) were 32 bps, 37 bps and 45 bps, down 10 bps, 22 bps and 23 bps from the beginning of 2023 (see Figure 4.7).

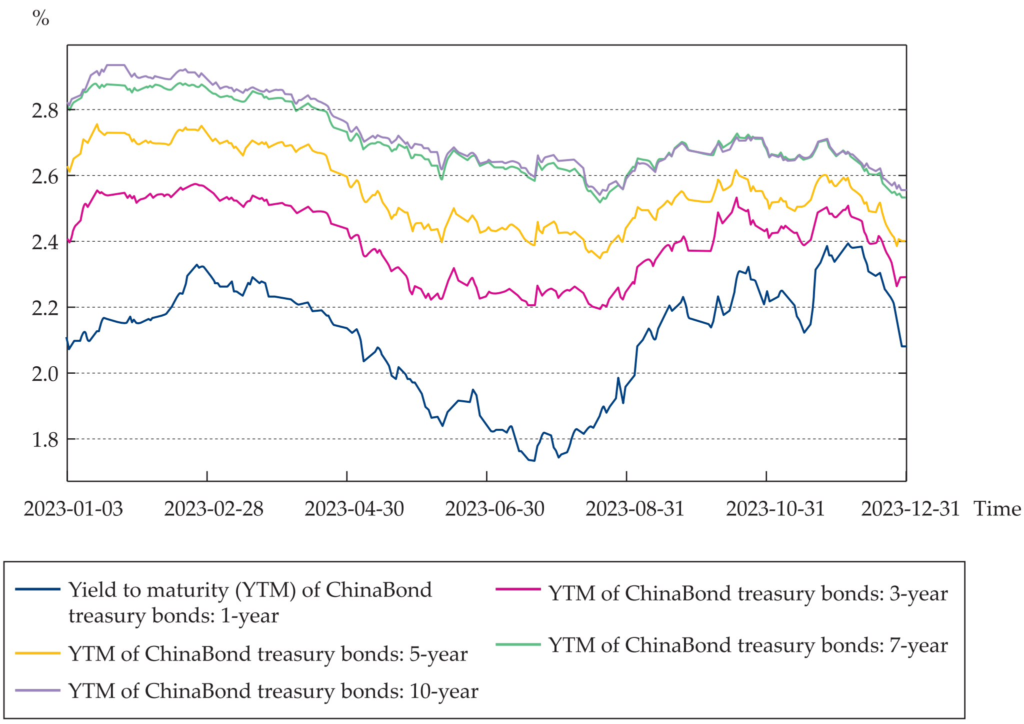

Figure 4.5 Changes in yields on treasury bonds with key maturities in 2023

(Source: CCDC)

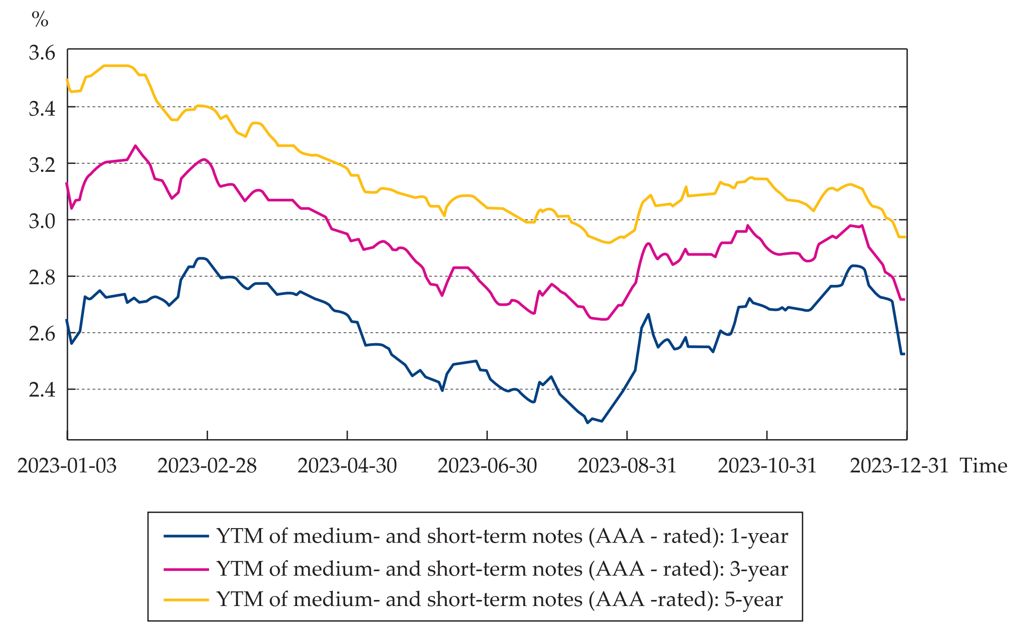

Figure 4.6 Changes in yields on medium- and short-term notes (AAA-rated) in 2023

(Source: CCDC)

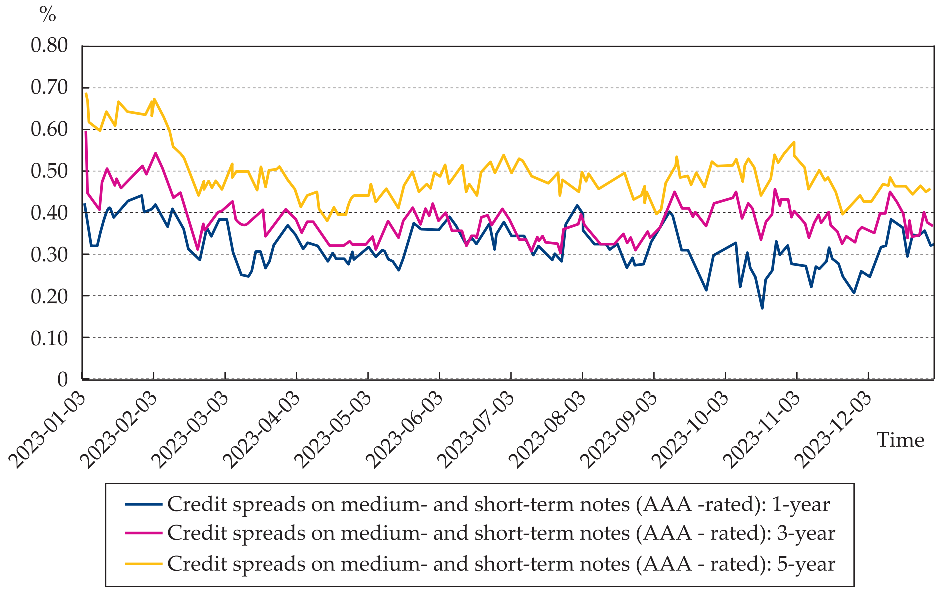

Figure 4.7 Changes in credit spreads on medium- and short-term notes (AAA-rated) in 2023

(Source: CCDC)

4.2.2 Investor structure was generally stable

Investors of the interbank bond market mainly consisted of depository financial institutions and non-incorporated products. As of end-2023, they were the two largest bondholders, posting RMB 81.8 trillion (accounting for 59.7 percent and up 1.6 percentage points from end-2022) and RMB 36.2 trillion (accounting for 26.5 percent and down 1.5 percentage points from end-2022) respectively. Local government bonds took up the largest share among the bonds held by depository financial institutions, while corporate debenture bonds took up the largest share among those held by non-incorporated products (see Figure 4.8).

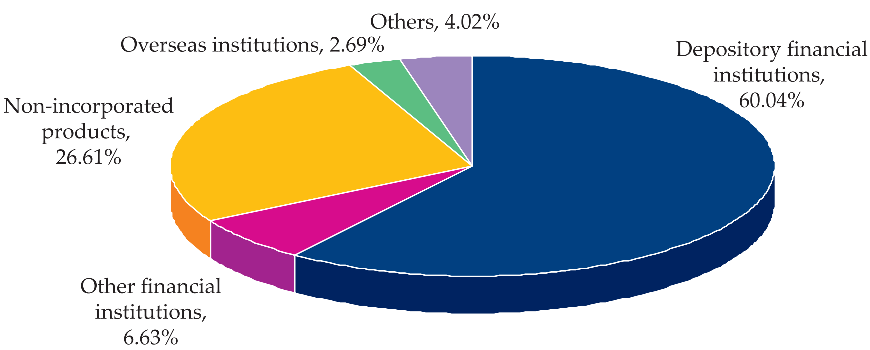

Figure 4.8 Investor structure in the interbank bond market at end-2023

(Source: CCDC and SHCH)

(Note: Due to rounding, proportions may not sum exactly to 100%)

The overall investor structure of the exchange-traded bond market was generally unchanged from the previous year. As of end-2023, trusts and banks (proprietary) held the largest amount of bonds on the SSE, posting RMB 2.4 trillion and RMB 2.3 trillion respectively and accounting for 14.2 percent and 13.7 percent of the total. General institutions and other professional institutions held the largest amount of bonds on the SZSE, posting RMB 0.6 trillion and RMB 0.5 trillion respectively and accounting for 18.4 percent and 15.5 percent of the total.

4.2.3 Government bond issuance grew year on year

In 2023, the issuance volume of treasury bonds reached RMB 11.01 trillion, a year-on-year increase of 14.3 percent. Specifically, the issuance volume of book-entry treasury bonds and electronic saving bonds were RMB 10.82 trillion and RMB 189 billion respectively. In order to support post-disaster recovery and reconstruction and improve disaster prevention, mitigation and relief capacity building, an additional RMB 1 trillion of treasury bonds were issued in Q4 of 2023. In 2023, a total of RMB 9.33 trillion of local government bonds were issued, a year-on-year increase of 26.78 percent. This included RMB 4.65 trillion in newly issued bonds and RMB 4.68 trillion in refinancing bonds. Among the newly issued bonds, general bonds accounted for RMB 0.70 trillion while special bonds totaled RMB 3.95 trillion. For refinancing bonds, general bonds amounted to RMB 2.65 trillion and special bonds reached RMB 2.03 trillion.

4.2.4 Green bond issuance progressed steadily

In 2023, 475 green bonds were issued in China with a total volume of RMB 835.991 billion. Specifically, the total volume of green debt financing instruments reached RMB 194.505 billion, accounting for 49.3 percent of the total volume of domestic green corporate debenture bonds. Most green bonds had maturities of three or five years, and were mainly issued to fund projects in clean energy, clean transportation and hydropower station construction. The issuers were mainly located in Beijing, Shanghai and Guangdong. As of end-2023, the outstanding of China's green bond reached RMB 1.98 trillion, of which the outstanding of green debt financing instruments was RMB 489.312 billion, an increase of 2.78 percent from end-2022.

4.2.5 Overseas institutions increased holdings of Chinese bonds

As of end-2023, the bond custody volume of overseas institutions in China's bond market reached RMB 3.72 trillion, accounting for 2.4 percent of the total and representing an increase of RMB 261.099 billion from the previous year. By bond types, overseas institutions held RMB 2.29 trillion in treasury bonds, representing 62.4 percent of the total; and RMB 0.80 trillion in policy financial bonds, accounting for 21.8 of the total.

4.3 Innovation in the bond market

4.3.1 Introduction of financial institutional investors into the OTC bond business

Regarding OTC bond issuance, the Agricultural Development Bank of China and the Export-Import Bank of China (CEXIM) introduced their first OTC bonds for financial institutional investors, marking a significant step in providing OTC bond products issued by development and policy banks. In the secondary market, the first commercial bank financial bond OTC trading business of financial institutional investors was launched. In terms of the OTC bond business agency, the Bank of Ningbo became the first urban commercial bank to launch its OTC bond business for financial institutional investors, following other agencies such as state-owned commercial banks and joint-stock commercial banks.

4.3.2 The "bond basket" trading mechanism was introduced

In June 2023, an innovative "bond basket" trading mechanism was launched for domestic and foreign investors. This mechanism enables trading of a diversified bond portfolio, supporting strategic trades and index tracking. As of end-December, over 30 institutions had issued more than 70 "bond baskets", facilitating transactions with nearly 100 domestic and international investors.

Compared with single-issued bonds, basket trading offers several advantages. For one thing, it improves the efficiency in bond allocation and strategy execution by allowing issuers to provide investors with one-stop quotation and trading services for multiple bonds, while continuously managing the basket in line with market conditions or strategic needs. For another, it enhances portfolio management by providing comprehensive information, enabling institutions to effectively conduct market-to-market management of their portfolios.

4.3.3 Continuous innovation in bond issuance to support green development, technological innovation, rural vitalization, and the BRI

Efforts were channeled to support the development of green finance. In 2023, the Postal Savings Bank of China issued the country's first special green financial bond, raising RMB 5 billion to fund green upgrading of infrastructure aligned with the China-EU Common Ground Taxonomy. China Development Bank issued RMB 15 billion special green financial bonds in the Bond Connect dedicated to Yangtze River conservation and green development. Chery Huiyin Motor Finance Service Co. Ltd. issued RMB 1 billion green financial bonds, marking the first such issuance by an auto finance company. Additionally, Agricultural Development Bank of China issued RMB 7.4 billion in green bonds to support biodiversity conservation and green industry development in Gansu, RMB 7 billion in green bonds to promote green industry development in Anhui and nationwide, and RMB 5.6 billion in green financial bonds.

Hybrid Sci-Tech Innovation Bond with debt-equity conversion terms were introduced. In July 2023, the first batch of seven Hybrid Sci-Tech Innovation Bond with debt-equity conversion terms were successfully issued. Throughout the year, 12 companies issued Hybrid Sci-Tech Innovation Bond with debt-equity conversion terms in the interbank market, reaching a bond custody volume of RMB 5.26 billion. Additionally, supporting innovation in Collective Note for Advanced Manufacturing Enterprises. In December 2023, private enterprises in Jiangsu, Zhejiang and Anhui provinces jointly issued China's first Collective Note for Advanced Manufacturing Enterprises, totaling RMB 700 million. China Bond Insurance Co., Ltd. provided credit enhancement for bond issuance, helping reduce the cost for technology-based enterprises in bond financing.

Support was directed toward issuing bonds dedicated to rural vitalization. To implement the arrangements made by the PBOC and other ministries on providing financial support for comprehensively promoting rural vitalization, the National Association of Financial Market Institutional Investors (NAFMII) issued the *Notice on Further Improving the Work Related to Rural Vitalization Bills* in July 2023, aimed at fostering rural development within the debt financing instrument market. From the introduction of rural vitalization bonds in the interbank market in March 2021 to the end of 2023, a total of RMB 198.9 billion of these bonds were issued.

Key initiatives also focused on promoting BRI-related bond product innovation. The CEXIM issued RMB 26 billion of financial bonds to support international cooperation and infrastructure projects related to the BRI. China Construction Bank issued USD 780 million of green bonds overseas for biodiversity and BRI support. Bank of China issued the world's first batch of green bonds specifically for BRI projects, valued at USD 770 million, to fund qualified green projects in Belt and Road partner countries. Industrial and Commercial Bank of China issued USD 2 billion of multi-currency, BRI-linked overseas green bonds in Hong Kong SAR of China, Singapore, Luxembourg and Dubai.

Efforts continued to drive innovation in the exchange-traded market with sci-tech innovation bonds, green bonds, and rural vitalization bonds. China Gezhouba Group Co., Ltd. issued renewable corporate bonds focused on sci-tech innovation and rural vitalization; Hualu Holdings Co., Ltd. issued the first corporate bond dedicated to sci-tech innovation and low-carbon transformation; and Huafu Securities Co., Ltd. launched the securities industry's first sustainability-linked corporate bond. A total of RMB 45.558 billion and RMB 377.427 billion of bond products were issued to support rural vitalization and sci-tech innovation throughout the year, a year-on-year increase of 46.3 percent and 249.8 percent respectively. In addition, bonds aimed at supporting MSME development were introduced in the exchange-traded market, with Huzhou Industrial Investment Group Co., Ltd. successfully issuing the first bond dedicated to MSME development.

4.3.4 Continuous efforts were channeled to innovate credit protection tools for private enterprise fundraising

In August 2023, the NAFMII issued the *Notice on Further Strengthening Support for Debt Financing Instruments to Promote the Healthy Development of the Private Economy*. This initiative aims to facilitate fundraising for private enterprises, expand the scope of the "second arrow", and improve the financing environment for private enterprises. Over the year, approximately RMB 570 billion in debt financing instruments were issued in the interbank market, marking a year-on-year increase of 4 percent. This included RMB 35.4 billion dedicated to supporting private real estate enterprises, bringing the year-end outstanding volume to RMB 143.4 billion, up about 5 percent from end-2022.

In the exchange-traded market, support has been provided to help enterprises leverage the "central-local government cooperation" credit enhancement model. A notable example is the successful issuance of the Huachuang-Xingshun-Xingcan Supply Chain Finance No.4 Asset-backed Special Plan Priority Asset-backed Securities in January 2023. The underlying asset of this bond consisted of the accounts receivable from 61 small and medium-sized suppliers in the upstream of the supply chain with Shenzhen GALAXY Industrial Co., Ltd. as the core enterprise. China Securities Finance Co., Ltd., CITIC Securities Co., Ltd., and Shenzhen High-tech Investment Group Co., Ltd. jointly provided such credit enhancement services as financing guarantee and credit protection tools for the bond. In July 2023, under the same credit enhancement model, China Tianying Inc. issued, in the book entry form, an RMB 100 million private placement bond—23 Tianying GK, with China Securities Finance Co., Ltd., Soochow Securities Co., Ltd., and Nantong Zhonghe Financing Guarantee Group Co., Ltd. providing full credit enhancement support.

4.3.5 Various innovative asset securitization products were launched

In March 2023, China's first "no credit enhancement" targeted asset-backed note—2023 Phase I Targeted Asset-backed Notes (sci-tech innovation bills) by China Railway Fourth Bureau Group Co., Ltd. was successfully issued in the interbank market. The note was issued under a "no-subject credit enhancement" mechanism, emphasizing the importance of asset credit. The issuance aimed to guide the market back to asset-based credit by enhancing asset quality, improving diversification, and ensuring sufficient cash flow coverage. Later in November, China Cinda Asset Management Co., Ltd. launched the first asset-backed note for financial institutions—2023 Qianyuan Phase I Targeted Asset-backed Notes, in the interbank market. In the same month, Wuxi Industry Development Group Co., Ltd. issued the country's first hybrid sci-tech innovation bill, the 2023 Phase I Targeted Asset-backed

Notes, backed by real estate trust assets. The underlying assets included industrial park office buildings and R&D and manufacturing facilities, promoting business growth within the park. This issuance helped create a virtuous cycle by revitalizing existing assets while attracting new investments. In December, Zhejiang China Light & Textile Industrial City Group Co., Ltd. issued China's first asset-backed debt financing instrument (CB)—the 2023 Phase I Targeted Asset-backed Debt Financing Instrument, as a local state-owned listed company. This issuance maximized the credit enhancement potential of both the issuing entity and its underlying assets, while revitalizing the issuer's commercial real estate assets.

In the exchange-traded market, ongoing efforts have been made to expand the pool of issuers in the ABS market, driving the launch of innovative products such as real estate-backed ABS and intellectual property-backed ABS. In July, China's first technology property asset-backed security—Xi'an High-tech Zone Technology Property (Technology Trading) Asset-backed Security was launched. This marked a significant step in supporting the integration of technology and finance for private MSMEs. In November, the market saw the launch of the first full-process and market-oriented intellectual property securitization project focused on "specialized, sophisticated, distinctive and innovative" characteristics—Sinolink-Hangzhou Future Technology Intellectual Property Phase I Asset-backed Special Plan (with specialized, sophisticated, distinctive and innovative characteristics). This initiative aims to support the high-quality development of the real economy by promoting the value of intellectual property. Additionally, steady progress has been made in expanding the range of REIT projects, with a broader focus on asset types such as consumer infrastructure and new energy. Throughout the year, a total of 11 REIT projects, were approved (including two expansion offerings), and seven were successfully listed (including two expansion offerings), collectively reaching a total value of RMB 20.4 billion.

4.3.6 The bond index products continued to be enriched

In October, the CCDC and the CEXIM jointly developed and launched the ChinaBond EIBC New Issue Key Terms Bond Index. The index constituents select the newly issued key terms bonds of CEXIM over the past two years, marking the first key terms bond index by a policy bank. It provides investors with refined insights and references for high-quality investment opportunities. Additionally, the ChinaBond Electric Utilities Sector High Quality Carbon Transition Corporation Credit Bond Index was successfully released. This index integrates carbon emission-related data into its composition, offering a benchmark and tracking target for investors focused on high-quality transformation bonds within the electric utilities sector. As of end-2023, a total of 33 indices within the ChinaBond Green and Sustainable Development Index Series were launched in the interbank bond market, including 16 green bond indices, 5 carbon indices, 11 ESG indices, and 1 green development-themed multi-asset index. To meet the market's demand for diversified asset allocation, ChinaBond index series has also expanded beyond traditional bond assets to cover a broader range of asset classes. This breakthrough enables market with more standardized and professional index investment tools, supporting the application of "fixed income plus" and major asset allocation strategies.

4.3.7 Pilot projects for blockchain-based digital applications were introduced in the bond market

In recent years, as digital development accelerates both domestically and internationally, blockchain technology has been extensively piloted within China's financial infrastructure to support the digitalization of the bond market. In line with the arrangements made by 16 ministries including the Office of the Central Cyberspace Affairs Commission on piloting the national blockchain innovative applications, the CCDC, as the national blockchain innovative application pilot unit, launched China's first independent and controllable blockchain digital bond issuance platform. This platform leverages blockchain encryption algorithms, privacy protection, identity verification, smart contracts and other technical features to enhance transparency and efficiency in bond issuance processes and help strengthen penetrating supervision. As of end-2023, the blockchain platform facilitated bond issuance totaling RMB 84.54 billion, encompassing financial and enterprise bonds.

4.3.8 Implementation of the industrial bond credit enhancement mechanism was accelerated

In 2023, the SSE established an industrial bond credit enhancement mechanism aimed at supporting bond financing within key local industries. This initiative, introduced through pilot issuances, encouraged local financing institutions to leverage their expertise in professional and regional risk management, exploring an integrated business model of "industrial bond credit enhancement + liquidity support + valuation management". On December 28, 2023, the SSE and the China Securities Index released the SSE Credit Enhancement Industrial Bond Index Series, offering the market diversified performance benchmarks and new investment targets. Throughout 2023, a total of 149 industrial bonds were issued on the SSE under this credit enhancement mechanism, raising RMB 81.438 billion, up 25.3 percent year on year.

4.4 Institutional construction

4.4.1 Administration of the bond issuance was further enhanced

4.4.1.1 Rules and regulations were established to promote standardized development of bond underwriting and pricing

In the interbank market, regulatory measures were reinforced to enhance market order. In June 2023, the NAFMII issued the *Notice on Matters Concerning Further Strengthening the Regulation of Issuance Business in the Interbank*

Bond Market. This notice, based on market principles and the guidance of transparent and standardized development, outlines requirements for the formation of market-driven interest rates, the standardization and transparency of bookkeeping and filing operations, and improvements in disclosure and operational standards for standby commitments. These measures aim to support the healthy development of the market. Second, efforts were made to enhance compliance among institutions in underwriting operations. In 2023, the NAFMII increased its monitoring and inspection of lead underwriters' pricing quotations. The association issued inquiry letters to 21 lead underwriters whose practices appeared to deviate from fair market standards. Business reminder interviews were conducted with 11 of these institutions, urging them to strictly implement the requirements of standardized underwriting quotation and emphasizing the importance of adhering to market-oriented principles and fair competition, thus jointly maintaining the benign operation order of the market.

In the exchange-traded market, the SSE officially issued the *Rules of the Shanghai Stock Exchange on the Issuance and Underwriting of Corporate Bonds*, along with two guidelines on issuance and bookkeeping filing. Additionally, the SSE also revised and issued several related business guidelines, improving transparency and further standardizing bond issuance and underwriting processes. To enhance the issuance mechanism, a centralized bookkeeping and filing system for credit bonds was introduced, further bolstering the compliance management of bond bookkeeping and filing. The SZSE issued the *Rules of the Shenzhen Stock Exchange on the Issuance and Underwriting of Corporate Bonds* as well as some supporting business guidelines. It also introduced a bookkeeping and filing system to comprehensively standardize the credit bond bookkeeping and filing process. The system was launched on October 16, 2023, further enhancing the transparency and consistency of bond bookkeeping and issuance.

4.4.1.2 Rules for evaluating underwriting institutions of debt financing instruments were improved to support high-quality development of these institutions

In September 2023, the NAFMII revised and issued the *Rules for Evaluating Member Markets Related to the Underwriting Business of Debt Financing Instruments of Non-Financial Enterprises*, refining the self-regulation and management framework for underwriting institutions. This update aims to foster a balanced evaluation and management mechanism that introduces and rewards compliant institutions and punishes and removes underperforming participants. This management mechanism introduces "capable and willing" institutions in an orderly manner through a first evaluation method; and through daily evaluations, institutions that fail to perform, lose operational capability, or face significant compliance issues can be swiftly removed, enabling dynamic adjustment of market participants. Following the introduction of these updated rules, the NAFMII released a specific evaluation plan and conducted evaluations under this framework. As a result, 27 new underwriting institutions were approved for participation, including 11 local banks, 10 foreign-funded banks, and 6 securities companies.

4.4.1.3 Due diligence guidelines were improved and responsibilities of intermediaries were clarified

In August 2023, the NAFMII revised and released the *Guidelines for Due Diligence Investigations on Debt Financing Instruments of Non-financial Enterprises*, broadening the scope of due diligence requirements to include various intermediaries and clarifying their specific responsibilities according to the principle of materiality. At the same time, the layering mechanism of due diligence was refined, and a catalogue of due diligence working papers for lead underwriters was created, further enhancing the operability of due diligence investigation and improving the quality of due diligence practices.

4.4.1.4 Direct quotation and issuance of financial bonds to investors was piloted

In October 2023, the Bank of China and Huaxia Bank successfully completed the first batch of pilot projects for directly issuing financial bonds to investors under a quotation-based mechanism. This innovative approach allows issuers to pre-determine and disclose essential elements such as the issuance scale and interest rate. Investors can access issuance announcements through China Inter Bank Market Trading System (CIBMTS) for detailed information. During the issuance process, investors simply input their desired subscription amount and confirm their participation with a single click. Once the issuance concludes, the system automatically generates a payment notice, enabling investors to complete transactions seamlessly. This streamlined process not only enhances efficiency in bond issuance but also caters to the growing market demand for a more transparent and user-friendly investment experience.

4.4.1.5 Pilot conditions of the Frequent Issuer Program were improved and its applicable scope was expanded

In 2022, the NAFMII introduced the innovative Frequent Issuer Program (FIP) mechanism, streamlining registration and issuance processes for frequent issuers while simplifying information disclosure requirements. In February 2023, the NAFMII issued the *Notice on Optimizing the Pilot Registration and Issuance of the "Frequent Issuer Program"* to broaden the program's applicability. The FIP mechanism is uniformly accessible to high-frequency issuers across various industries, qualifications, and scales. By the end of 2023, 108 companies had successfully piloted the FIP mechanism, issuing a combined total of 802 debt financing instruments valued at RMB 953.4 billion. This achievement established a tiered management approach for debt financing instruments and enriched the multi-tiered bond market system.

4.4.1.6 Adjustments to responsibilities for government bond registration and corporate bond issuance review

In July 2023, the Ministry of Finance (MOF) issued the Administrative *Measures for the Registration, Custody, and Settlement of Government Bonds*, introducing centralized and unified management for the registration, custody and settlement of government bonds nationwide. Under this framework, a government bond registration agency authorized by the MOF is responsible for general registration duties. Meanwhile, government bond registration agencies across various markets synchronize relevant data with the general registration agency in real time. As part of the State Council's institutional reform plan, the responsibility for reviewing enterprise bond issuance will be transferred to the CSRC. The SSE and other relevant entities will take over the review function of enterprise bond issuance. Additionally, the registration, custody, trading, issuance bookkeeping, and filing of enterprise bonds will continue to be supported in both the interbank and exchange-traded markets, maintaining parallel operations for market participants.

4.4.2 Optimization of bond trading management

4.4.2.1 Self-regulatory management of money brokerage business was enhanced

In order to strengthen the self-regulatory management of money brokers and ensure the standardized and orderly operation of the interbank market, the NAFMII issued the *Notice on Matters Concerning Further Regulating Money Brokerage Quotations and Data Display in the Interbank Market* in September 2023 in complementary to the *Self-regulation Guidelines for the Money Brokerage Business in the Interbank Market*. This notice regulates brokers' market data display from three aspects: standardized quotation, hierarchical classification of data display, and security and compliance of data cooperation. Additionally, in order to improve the professional capabilities and compliance levels of money brokers, the NAFMII issued the *Notice on Strengthening the Self-regulatory Management of Money Brokers* in December 2023, establishing a mechanism for professional training, information submission, and reputation restraint for practitioners. The mechanism also supports inquiries by market members on relevant information, thus improving transparency in the interbank market.

4.4.2.2 Connection between bond market-making and underwriting was built to improve market liquidity

To enhance the resilience of the bond market and market-oriented pricing capability, the NAFMII issued the *Notice on Issuing the Implementation Plan for the Market Evaluation of the Lead Underwriting Business Practice of General Lead Underwriters of Non-financial Enterprise Debt Financing Instruments in 2023 (Trial)* in December 2023. Addressing the current weak links in lead underwriter practices, the plan incorporates market-making business-related indicators into the daily evaluation of lead underwriters. This initiative strengthens the linkage between the primary and secondary markets for debt financing instruments, improves market liquidity, and supports more effective bond price discovery.

4.4.2.3 Continuous optimization of the bond secondary market mechanism

In 2023, the bond market-making business was officially introduced to the exchanged-traded market. The SSE and CSDC jointly issued the *Measures for Bond Lending Business of Shanghai Stock Exchange and China Securities Depository and Clearing Co., Ltd.* These measures aim to establish and enhance a bond lending regulatory system, transition the pilot bond lending program into routine operations, improve the efficiency of transaction and settlement, and strengthen business risk management. To further streamline market-making information access for institutional participants, the SZSE, in collaboration with four mainstream information service providers including Wind, launched the "Shenzhen Stock Exchange Market-making" module, continuously optimizing the visibility of market-making data on the SZSE platform. In 2023, the SSE market hosted 11 primary market makers and 4 general market makers. These entities facilitated liquidity for 21 benchmark interest rate bonds and 102 benchmark credit bonds, achieving an average daily trading volume of approximately RMB 60 billion—representing about 40 percent of the SSE's spot bond trading volume. Similarly, as of end-2023, the SZSE had 14 active bond market makers, providing continuous bilateral quotations for 175 bonds. Over 130,000 market-making bond trades were executed, with an average daily turnover of RMB 1.2 billion, accounting for 11 percent of the average daily cash bond trading volume.

COLUMN 1 Measures for regulating bond valuation services in the interbank bond market

To regulate bond valuation services in the interbank bond market, protect investors, and build a stable and healthy bond market, the PBOC released the Administrative Measures for the Bond Valuation Services in the Interbank Bond Market in December 2023.

Combining the experience of mature bond markets with the practices in China, the Measures underscore the importance of neutrality, fairness, professionalism, and transparency of valuation firms. In particular, it specifies the basic criteria for internal controls, operations, and technology at valuation firms; clarifies the requirements for internal governance, the selection and use of data sources, valuation methodology, information disclosure, and the handling of conflict of interest; requires greater technology use and transparency in the valuation process; and encourages diversified competition in the industry.

The Measures require valuation firms to maintain objectivity and neutrality, improve the fairness of their valuation products on an ongoing basis, and establish clear, regulated, and transparent data usage standards and hierarchy so that the selected data can truthfully reflect the market conditions. Particular care is to be given to the source of data and the reliability of prices in periods of major market volatility. Furthermore, the Measures require valuation *firms to disclose information about their products, such as methodology, data sources and usage hierarchy, and change of methodology and termination and transfer of the products, in a truthful, accurate, complete, and timely manner. These firms should also publicly release quality reports for their valuation products and address market concerns.*

The Measures represent a key response to the Central Financial Work Conference's call for promoting the high-quality development of the bond market, helping raise the service standard of valuation firms and improving the pricing mechanism in the bond market. The PBOC will continue to strengthen the management of bond valuation services and improve the valuation systems, the functions of the bond market, and the benchmark and transmission functions of bond market pricing, as a step toward building a modern financial system.

4.4.3 Duration management was enhanced

4.4.3.1 Working mechanism for the duration of bonds for the interbank market was improved

In April 2023, the NAFMII issued the *Rules for Business within the Duration of Debt Financing Instruments of Non-financial Enterprises in the Interbank Bond Market*, which aim to clearly define the roles, responsibilities and obligations of key participants including issuers, lead underwriters, and trustees of debt financing instruments. By establishing clearer guidelines, the *Rules* encourage all parties to fulfill their duties throughout the lifespan of debt financing instruments. The *Rules* emphasize that the issuer holds primary responsibility for the bond during its duration. They also underscore the principles of honesty and compliance, while expanding management tools for addressing breaches of contract and dishonesty. Additionally, the *Rules* distinguish the respective duties of lead underwriters and trustees, based on the principle of "being responsible for the party they serve". These measures further enhance the flexibility of the working mechanism for the duration of the interbank market.

4.4.3.2 Supervision of the duration was improved in the exchange-traded market

The SSE has implemented several measures to further strengthen compliance among bond market participants. These include the issuance of over 250 supervision letters, work letters, and inquiry letters, as well as the convening of more than 10 specialized training sessions on information disclosure. These initiatives clarified regulatory requirements and communicated key regulatory concepts. In addition, targeted campaigns were launched to combat violations of laws and regulations, with a focus on investigating significant bond-related infractions. In 2023, over 210 disciplinary actions and regulatory interventions were taken in relation to bond business, addressing violations such as late submission of regular bond reports, delayed or inaccurate disclosure of major events, and improper use and disclosure of raised funds. Supervision of intermediary agencies was also strengthened, with regulatory actions taken against more than 10 intermediaries found to be negligent in performing their duties.

The SZSE continued to enhance its regulatory framework, with a focus on solvency. Efforts were made to improve information disclosure quality, strengthen credit risk prevention and control, and enhance supervision of structured bond issuance. A non-market transaction monitoring mechanism was established, and the professional standards for intermediaries were reinforced. These initiatives aimed to prevent and control market risks, ensuring strict adherence to safe operational practices.

4.4.3.3 Collateral business mechanism was continuously enhanced

The SHCH issued the *Implementation Rules of the Shanghai Clearing House for Collateral Disposal Business in the Interbank Market* and the *Implementation Rules of the Shanghai Clearing House for Collateral Auction Business in the Interbank Market*. These rules further enhance the collateral disposal mechanism, boosting the efficiency of bond collateral handling. Furthermore, the SHCH broadened the scope of acceptable collateral by including innovative domestically issued bonds. It also spearheaded the launch of the first-ever collateral management service for interbank loans and introduced green bonds as a form of credit enhancement collateral.

4.4.4 The information disclosure system was improved

4.4.4.1 Information disclosure and submission channels for financial bonds were unified in the interbank bond market

According to relevant work requirements released by the PBOC on further standardizing the management of financial bond information disclosure in the interbank bond market, financial bond information disclosure is now managed exclusively through the financial bond issuance management information system, operated and maintained by the CFETS. Under the new framework, issuers submit the information disclosure documents to the CFETS, which subsequently discloses the submitted information and forwards it to the CCDC and SHCH. This streamlined process eliminates the need for issuers to submit disclosure documents separately to the CCDC and SHCH.

4.4.4.2 Basic systems for corporate bond information disclosure were improved

The SSE revised and issued a series of guidelines aimed at strengthening the effectiveness and relevance of corporate bond information disclosure concerning core solvency matters, and optimized the duration supervision system. The revised documents include the *Rules of the Shanghai Stock Exchange for the Listing of Corporate Bonds*, the *Rules of the Shanghai Stock Exchange for the Listing of Non-Publicly Offered Corporate Bonds*, the *Guideline No.1 of* *the Shanghai Stock Exchange for the Application of Self-regulatory Rules for Bonds—Continuous Information Disclosure of Corporate Bonds*, and the *Guideline No.4 of the Shanghai Stock Exchange for the Application of Self-regulatory Rules for Bonds—Credit Risk Management of Corporate Bonds and Asset-backed Securities*. The SZSE revised and released the *Rules of the Shenzhen Stock Exchange for the Listing of Corporate Bonds*, the *Rules of the Shenzhen Stock Exchange for the Listing of Non-Publicly Offered Corporate Bonds*, the *Guideline No.1 of the Shenzhen Stock Exchange for Corporate Bond Duration Supervision—Periodic Report* and the *Guideline No.2 of the Shenzhen Stock Exchange for Corporate Bond Duration Supervision—Interim Report*. These documents clarify requirements for information disclosure management and operational processes, and comprehensively and systematically standardize the disclosure arrangement of periodic reports. These efforts aim to improve the quality of interim report disclosures, strengthen timely disclosure and early warning of major matters, and enhance the information disclosure mechanism focusing specially on solvency.

In addition, in terms of improving the information disclosure system for REITs, the SSE issued the *Guideline No.5 of the Shanghai Stock Exchange for Publicly Offered Infrastructure Real Estate Investment Trusts (REITs)—Interim Report (Trial)* and conducted training sessions to raise awareness of the new rules. The *Guideline* outlines specific requirements for improving information disclosure practices. Key provisions include: requiring fund managers and operation management institutions to establish robust information disclosure systems; designating senior executives as responsible persons for overseeing information disclosure; and ensuring fund managers maintain high standards for daily information disclosure. These measures aim to raise awareness among relevant REITs on information disclosure.

4.4.4.3 Business rules and information disclosure guidance on asset securitization were formulated

In March 2023, to support the evolving development stage of the securitization market, the NAFMII formulated and issued the *Business Rules for Enterprise Asset Securitization in the Interbank Bond Market* and *Guidelines for Information Disclosure of Enterprise Asset Securitization Business in the Interbank Bond Market*. These documents provide detailed regulatory requirements, outlining the scope of participation, business processes, and specific responsibilities of involved entities. Particular emphasis is placed on information disclosure, institutional accountability, and the establishment of insurance mechanism. Additionally, the *Notice on Further Enhancing the Function of the Interbank Enterprise Asset Securitization Market to Improve the Quality and Efficiency of Serving the Real Economy* was issued, which aims to improve the quality and efficiency of information disclosure, guide intermediaries to better fulfill their responsibilities, strengthen market self-regulation and safeguard investor rights, guide the market to emphasize asset credit in bond issuance, and foster a healthy and sustainable market ecosystem.

COLUMN 2 The Guidelines for Information Disclosure on the Duration of Green Bonds was published

In November 2023, China Green Bond Standard Committee issued the Guidelines for Information Disclosure on the Duration of Green Bonds. The Guidelines focus on three key areas. First, it puts forward overall requirements such as the subject, content, frequency and form of information disclosure for green bond issuers, as well as detailed requirements on disclosure of the core elements, thus creating a unified framework for information disclosure throughout the duration of green bonds. Second, a standardized format is provided for disclosure content, specifying methods for reporting environmental benefits. The Guidelines introduce a formula for calculating environmental benefits, enhancing the verifiability and measurability of the disclosed information. Third, drawing on domestic and international best practices, the Guidelines develop a comprehensive indicator system for environmental benefit disclosure. This strengthens the transparency and consistency of environmental information reporting.

While designed primarily for annual disclosures, the Guidelines also serve as a useful reference for quarterly or semi-annual reporting. The release of the Guidelines represents a significant milestone in the enhancement of China's green bond standard system. It provides clear regulations for issuers, improves the quality and accessibility of environmental information, and encourages greater enthusiasm for disclosure. By boosting investor confidence, the Guidelines help direct funds toward green and low-carbon initiatives, supporting the transition to a sustainable economy.

4.4.5 The risk prevention and bond default disposal mechanism was improved

4.4.5.1 The role of the holder meeting mechanism in risk resolution was improved

In December 2023, the NAFMII issued a revised version of the *Procedures for the Holder Meeting of Non-financial Enterprise Debt Financing Instruments in the Interbank Bond Market*, along with related guidelines and model texts, aimed at enhancing holder meeting procedures. Key updates included adjustments to the approval ratios and legal opinion requirements in the disposal application process. To ensure smooth implementation, the NAFMII also introduced transition period notices and supporting model texts, establishing an institutional framework described as "one notice + two rules + three texts". This system, applicable during the transition period, provides detailed references for prospectus provisions and the preparation of disclosure documents during bond lifecycles, ensuring alignment with the new regulations. In conjunction with these revisions, the SHCH adjusted key elements such as approval ratios and legal opinion requirements in the disposal application form in its *Guidelines of the Shanghai Clearing House on Bond Default and Risk Disposal Operation in the Interbank Market (Revised in 2022)*.

4.4.5.2 Application of active debt management tools in the interbank market was facilitated

The NAFMII and SHCH piloted the resale business in the interbank market, allowing bond issuers to resell bonds after purchasing puttable bonds from investors. This initiative provides additional options for corporate active debt management and bond risk disposal. As of end-2023, a total of 45 enterprises had participated in the program, involving 50 debt financing instruments with a combined balance of RMB 40 billion, and completing resales totaling nearly RMB 1.6 billion.

In parallel, the NAFMII and SHCH continued efforts to normalize cash tender offer operations. The online cash tender offer service was officially launched, accompanied by updates to relevant business documents, significantly enhancing the efficiency and convenience of cash tender offers. Over the year, 45 issuers conducted 69 cash tender offers across 14 provinces, supported by 20 financial institutions managing transactions. The total acquisition amount surpassed RMB 30 billion, representing a year-on-year increase of 140 percent.

4.5 Opening-up of the bond market

4.5.1 Bond investment and transaction were further opened to overseas investors

4.5.1.1 Overseas investors in the market increased and their bond holdings steadily rose

As of end-2023, 1,124 overseas institutions entered the interbank bond market, an increase of 4.9 percent year on year. Specifically, 551 entities entered the market through the CIBM Direct channel, 822 through the Bond Connect channel and 249 through both channels. The bond custody volume of overseas institutions in China's bond market reached RMB 3.72 trillion, accounting for 2.4 percent of the total, up RMB 261.099 billion year on year. The bond custody volume of overseas institutions in China's interbank bond market reached RMB 3.67 trillion, accounting for 2.7 percent of the total and representing an increase of RMB 281.692 billion year on year.

The team of overseas underwriters for non-financial enterprise debt-financing instruments has been expanded, with self-regulatory organizations initiating market evaluation processes for foreign-funded institutions and other underwriter applicants. Based on the evaluation results, three foreign-funded banks were newly added as general lead underwriters, three as special lead underwriters, and four as underwriters. As of end-2023, the number of foreign-funded underwriting institutions had grown to 13, comprising five general lead underwriters, three special lead underwriters, and five underwriters. These institutions represent a diverse range of markets, covering the United States, France, the United Kingdom, Japan, Singapore, and China's Hong Kong and Taiwan.

4.5.1.2 Efforts were continued to promote high-quality opening-up of the interbank market

In line with the unified arrangements made by the PBOC, domestic financial infrastructure such as the CFETS and the CCDC collaborated closely with their overseas counterparts to introduce a series of enhancements and service measures tailored for international investors. First, the team of Bond Connect dealers was steadily expanded to better accommodate global traders. Starting from July 4, 2023, three new foreign-funded institutions in China, namely Sumitomo Mitsui Banking Corporation, Societe Generale Bank (China), and Fubon Bank (China), were qualified to operate as Bond Connect dealers. This move will provide greater convenience for investors in different regions around the world to conduct inquiries and transactions with more familiar dealers. Currently, the Bond Connect market features 59 dealer institutions, with the addition of these foreign-funded entities further enhancing the platform's ability to meet the diverse trading needs of global investors. Second, a basket of trading mechanisms for bonds were introduced, significantly expanding the bond trading options available to overseas institutions. Under this mechanism, domestic market makers provide quotations for bond portfolios based on indices or their trading strategies and overseas investors can conveniently allocate and trade a diversified basket of domestic RMB bonds. This innovation addresses the issue of limited liquidity for certain individual bonds. This marks the beginning of a new era where overseas institutions can invest in RMB bond portfolios. To date, several overseas institutions have already participated in basket trading. Third, significant strides were made in the digitalization of products and services under the CIBM Direct channel, streamlining operations and improving both service quality and efficiency. For instance, new online services were launched to facilitate settlement recycling and non-trade transfers across different channels for overseas investors.

4.5.1.3 Efficiency and convenience of settlement failure reporting for overseas investors were enhanced

In June 2023, the CFETS, CCDC, SHCH and the Bond Connect Company Limited collaboratively launched a one-stop online reporting service for settlement failure reporting of the Northbound Bond Connect trading market. This marks another service initiative introduced to better serve the actual business needs of overseas investors and facilitate their investment in the interbank bond market under the guidance of the PBOC. The new service allows both parties involved in a Northbound Bond Connect transaction settlement to complete the settlement failure filing process entirely online. This eliminates the need to submit paper-based settlement failure forms separately to CFETS, CCDC, and SHCH. By streamlining the reporting process, this service significantly enhances both the efficiency and convenience of settlement failure reporting.

4.5.2 The high-quality development of the panda bond market was promoted based on the concept of open development

4.5.2.1 Market scale saw steady expansion

In 2023, the total amount of panda bonds registered with the NAFMII reached RMB 333.5 billion, marking a year-on-year increase of 1.9 times. The issuance volume amounted to RMB 133.5 billion, a year-on-year increase of 65.8 percent. The year saw the registration of 15 new panda bond issuers, including Volkswagen, a Fortune 500 company. Regarding bond maturities, the medium- and long-term varieties accounted for 58 percent of the total. Notably, 69.6 percent of the funds raised through panda bonds were allocated for domestic use, effectively addressing the RMB financing needs of overseas issuers. This supported China's real economy, and further advanced RMB internationalization.

4.5.2.2 Continuous product innovation in the bond market

To align with the national strategies for low-carbon transformation and green development, significant efforts were made to support overseas enterprises in issuing green bonds, sustainable development bonds, and sustainability-linked bonds. Examples include the issuance of sustainable development bonds by the Egyptian government and the Asian Infrastructure Investment Bank (AIIB), as well as the first batch of sustainability-linked panda bonds by China State Shipbuilding Corporation and Towngas. In 2023, sustainability-linked panda bonds totaled RMB 16.7 billion, accounting for 12.5 percent of the total panda bond issuance. Furthermore, to support the BRI Summit, assistance was provided to the Egyptian government for the issuance of panda bonds.

4.5.2.3 Continued efforts were made to optimize the panda bond systems and regulations

Continued efforts were made to refine the rules governing the panda bond market. A pilot program for a new pricing and placement mechanism was launched to enhance market efficiency. In September 2023, the NAFMII issued the *Notice on the Work Related to the Pilot Program of Optimizing the Pricing Mechanism for Bond offerings by Overseas Institutions*. This initiative aims to promote transparent price discovery, expand the diversity of investors, and improve secondary market liquidity for panda bonds. Volkswagen was the first issuer to participate in this pilot program, successfully utilizing a market-oriented issuance pricing mechanism. The initiative delivered mutual benefits for issuers, investors, and underwriters.

4.5.3 The Southbound Bond Connect business steadily advanced

In September 2021, the Southbound Bond Connect was officially launched, which provided a convenient channel for mainland investors to invest in the Hong Kong bond market through the connection between the Mainland and Hong Kong financial infrastructure service institutions. In 2023, the SHCH improved the supporting services for Southbound Bond Connect traders; completed the tax value-added services related to the *Foreign Account Tax Compliance Act* (FATCA) in Southbound trading business, successfully freeing mainland institutional investors from additional withholding tax; formulated business fee reduction and renewal arrangements, and made clear continued business fee exemption for Southbound trading in 2024; supported new business scenarios such as corporate action processing for bonds with options and yield handling for interest payment and principal redemption in holidays.

4.5.4 Continuous innovation in the Yulan bond business mechanism

The Yulan bond business, introduced in December 2020 by the SHCH in collaboration with Euroclear Bank, was designed to facilitate bond issuance in international markets by domestic issuers. Since its launch, continuous efforts have been made to optimize and innovate this mechanism. In 2023, the SHCH supported the Bank of China Macau Branch in issuing the first RMB Yulan bond, and completed the withholding income tax refund for overseas branch bondholders of Chinese commercial banks. The SHCH also encouraged Euroclear Bank to include Yulan bonds as eligible collateral under its tri-party collateral management services. Additionally, workshops themed on Yulan bonds were held to promote their brand and raise awareness.

4.6 Outlook of the bond market

At the Central Financial Work Conference, it was emphasized that efforts should be directed toward promoting the high-quality development of the bond market. In 2024, the Chinese bond market will continue to pursue a new development philosophy, prioritizing areas such as technology finance, green finance, inclusive finance, old-age finance, and digital finance, and continue to strengthen the institutional mechanism building and product innovation, thus improving the quality and efficiency of serving the real economy. First, the institutional environment of the bond market will be further improved. Second, the development of the bond market will be better regulated by striking a balance between security and efficiency, and risk prevention and resolution and default disposal will be carried out more effectively. Third, innovation-driven development will be deepened. Product, mechanism and service innovation will be a sustained goal and the role of the bond market in supporting the real economy will be given full play to, especially in areas such as sci-tech innovation, green and low-carbon development, and private MSBs. Fourth, the OTC bond business in the interbank bond market will be further standardized. Fifth, the connectivity between domestic and overseas bond markets will be promoted steadily so as to make the bond market more accessible for investors both at home and abroad. Sixth, continuous efforts will be channeled to achieve higher-level opening-up.

BOX 2 A pilot panda bond pricing and placement mechanism for overseas institutions was launched in the interbank market

Since 2013, the NAFMII, under the guidance of the PBOC, has spearheaded efforts to develop the panda bond market. These efforts include fostering product innovation and building robust systems, successfully facilitating the issuance of more than RMB 560 billion in panda bonds by overseas institutions. To further improve cross-border investment and financing efficiency in the interbank bond market, promote market-oriented bond pricing, and support the institutional opening-up of China's bond market, the NAFMII issued the Notice on the Work Related to the Pilot Program of Optimizing the Pricing Mechanism for Bond Offerings by Overseas Institutions in September 2023. This marked the launch of a pilot program to enhance the pricing and placement mechanisms of panda bonds.

The Notice introduces several key optimizations in the pricing and placement mechanisms for panda bonds. First, the issuance amount can be flexibly determined. Under a dynamic issuance adjustment mechanism, pilot issuers can set a lower limit for the issuance amount before the end of the bookkeeping process. Following the conclusion of bookkeeping, they can adjust the final issuance amount based on subscription orders, investor structure, and their financing needs. Second, bond placement can be carried out flexibly. Issuers can opt for flexible bond allotment in marginal areas or allocate bonds dynamically within purchase orders, in line with pre-disclosed allocation principles. The third is the sharing of investor subscription orders. Underwriters are required to share investor subscription orders with the issuer and the bookkeeping manager responsible for bond placement. This provides valuable insights for determining issuance amounts and guiding bond placements. Fourth, the compliance requirements of the process were clarified. The Notice clarifies compliance requirements across key areas such as information confidentiality, disclosure, prevention of benefit transfers, and self-regulatory practices, ensuring robust protection of investor rights and interests.

Volkswagen, the first pilot issuer under this mechanism, carried out non-transaction roadshows and market inquiries in collaboration with its lead underwriter, and adopted flexible placement strategies in marginal areas based on pre-disclosed principles. The bonds were issued via a centralized bookkeeping and filing system, attracting active subscriptions from over 30 investment institutions. The subscription rate reached 3.3 times the planned issuance amount, with investors spanning public funds, foreign asset management firms, pension funds, and both domestic and international banks. The pilot project successfully achieved its objectives by fostering market-oriented issuance pricing, diversifying the investor base, and invigorating the secondary market. This market-driven approach also delivered win-win outcomes for investors, issuers, and lead underwriters.

BOX 3 The launch of central counterparty bond lending and borrowing business marks progress in addressing settlement risks

On December 12, 2023, the CFETS and the SHCH jointly launched the central bond lending business. This initiative introduces an automated securities lending mechanism within the interbank bond market. Market participants voluntarily declare the bonds they are willing to lend, creating a pool of lendable bonds managed by the SHCH. If a borrower faces a bond shortfall on the settlement date, they can submit a central bond lending request via the CFETS. The SHCH then automatically matches the borrowing needs with available bond amounts, facilitates the bond borrowing process, manages collateral requirements, and oversees settlement upon loan maturity. The SHCH acts as a counterparty to both the borrower and the lender throughout the lending period, providing performance guarantees and default resolution services to ensure a secure and seamless transaction.

Compared to traditional bilateral bond lending, the central bond lending business offers several key advantages. First, designed specifically to address "bond shortage" scenarios, this mechanism significantly improves the success rate of bond transaction settlements. By mitigating settlement risks, it meets critical market needs while providing new avenues for securities lending. Second, under the central counterparty mechanism, the SHCH serves as a central counterparty in the whole lending process, eliminating the need for participants to seek individual counterparties. Moreover, SHCH provides risk management and performance guarantee services, ensuring greater convenience and safety in the lending process. Third, the SHCH centralizes the pool of lendable bonds and sets a standardized borrowing rate based on market conditions. This approach revitalizes idle bond holdings, enabling institutions to increase returns on their assets while improving market liquidity.

By integrating front-end trading and back-end clearing, the central bond lending business establishes a comprehensive bond service system. It combines diverse trading models with a robust dual-pillar structure of custody and clearing, strengthening the overall clearing and settlement infrastructure. This innovation in the bond lending market represents a significant milestone that drives the high-quality development of the interbank bond market.

Chapter 5 Stock Market

In 2023, the stock market experienced bouts of turbulence and adjustments, and the regulation and reform of the capital market were further deepened. The volumes of financing and trading generally declined, and major indices fell with reduced volatility. The engagement of institutional investors in the stock market was further increased, and the financing structure continued to improve. Major reforms, such as the comprehensive implementation of the registration-based IPO system, were smoothly rolled out, and regulatory oversight was strengthened across the board. Risks in key areas were effectively prevented and resolved and market opening-up and cooperation were further advanced. The capability of the stock market to serve the real economy was further improved, driving high-quality capital market development.

5.1 Performance of the stock market

5.1.1 Share issuance and financing

In 2023, the number of companies raising funds on the stock market and their total financing volume declined[①]. A total of 818 companies raised funds through IPOs, additional shares issuance, share allotment, preferred stock issuance, convertible bond issuance and exchangeable bond issuance, down 16.53 percent year on year, with a total financing volume of RMB 1,134.430 billion, down 32.80 percent from RMB 1,688.188 billion in 2022 (see Figure 5.1). Specifically, the number of companies that raised funds through IPOs decreased to 313, down 26.35 percent year on year, and the total financing volume of IPO stood at RMB 356.539 billion, down 39.25 percent year on year. A total of 331 companies issued additional shares, down 6.76 percent year on year, and the volume was RMB 578.951 billion, down 19.92 percent year on year.

The volume of funds raised through preferred stock issuance increased while that through share allotment and the issuance of convertible bonds and exchangeable bonds decreased. In 2023, one listed company issued preferred stocks (no listed company issued preferred stocks in 2022), with a financing volume of RMB 10 billion. Five listed companies completed share allotment, a decrease from nine in 2022, involving a volume of RMB 15.049 billion, a

① The data in Chapter 5 comes from Wind Info.

decrease of 75.54 percent from the previous year. A total of 138 listed companies issued convertible bonds, down 9.80 percent year on year, with a volume of RMB 140.574 billion, down 48.61 percent year on year. A total of 28 listed companies issued exchangeable bonds, down 26.32 percent year on year, with a volume of RMB 33.316 billion, down 23.05 percent.

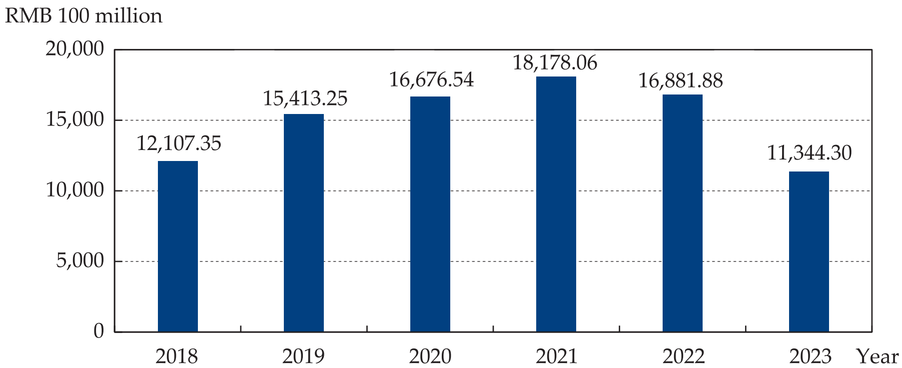

Figure 5.1 Total financing volume in the stock market from 2018 to 2023
(Source: Wind)

5.1.2 Stock trading and holding

In 2023, the turnover of A-shares in the market totaled RMB 212.94 trillion, down 5.07 percent year on year, including RMB 73.62 trillion from the SSE Main Board, down 12.63 percent year on year, RMB 15.74 trillion from the SSE STAR Market, up 31.30 percent year on year, RMB 69.30 trillion from the SZSE Main Board, down 16.45 percent year on year, RMB 53.54 trillion from the SZSE ChiNext Board, up 19.19 percent year on year, and RMB 0.73 trillion from the Beijing Stock Exchange (BSE), 3.65 times that of the previous year. Throughout the year, the proportion of trading volume by institutional investors on both the SSE and SZSE increased, reaching 43.58 percent on the SSE (including Northbound Bond Connect trading through the Shanghai-Hong Kong Stock Connect) and 37.58 percent on the SZSE, an increase of 0.94 percentage points and 1.18 percentage points from 2022, respectively.

As of end-2023, the percentage of market value held by foreign investors on the SSE dropped from 4.37 percent at end-2022 to 3.72 percent, the market value held by domestic institutions accounted for 17.17 percent, down from 18.05 percent, and the market value held by individual investors accounted for 23.37 percent, down from 23.65 percent. The market value held by foreign investors on the SZSE dropped from 3.08 percent at end-2022 to 2.83 percent, the market value held by domestic institutions accounted for 17.78 percent, down from 18.28 percent, and the market value held by individual investors accounted for 42.29 percent, up from 40.53 percent.

5.1.3 Stock indices and market fluctuations

In 2023, due to the impact of global

macroeconomic factors and shifts in market sentiment, the stock market initially trended upward but later experienced fluctuations and weakened (see Figure 5.2). In particular, the SSE Composite Index, the STAR 50 Index, the SZSE Component Index, and the ChiNext Index fell by 3.70 percent, 11.24 percent, 13.54 percent and 19.41 percent respectively.

In 2023, the SSE and SZSE markets experienced reduced volatility. In particular, the yearly change of the SSE Composite Index reached 17.38 percent, down 10.15 percentage points from 2022. The SSE Composite Index experienced a change of above 1 percent for as many as 42 days, 27 days fewer than in 2022. The yearly change of the STAR 50 Index reached 36.34 percent, and the index experienced a change of above 1 percent for as many as 89 days, 40 days fewer than in 2022. The yearly change of the SZSE Component Index reached 28.50 percent, down 4.17 percentage points from 2022. The SZSE Component Index experienced a change of above 1 percent for as many as 64 days, 43 days fewer than in 2022. The yearly change of the ChiNext Index reached 37.03 percent, and the index experienced a change of above 1 percent for as many as 84 days, 53 days fewer than in 2022.

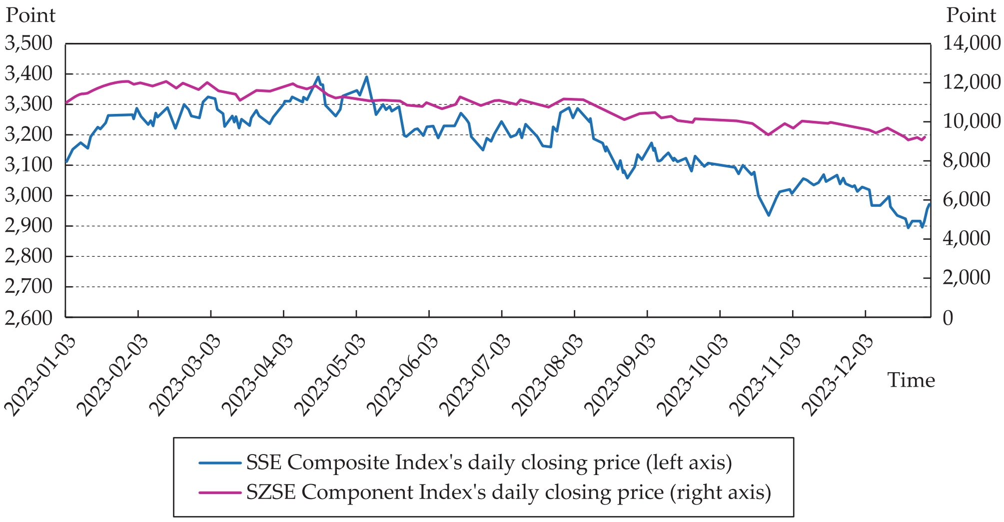

Figure 5.2 Movements of SSE and SZSE main board indices in 2023

(Source: Wind)

5.2 Main features of the stock market

5.2.1 Major stock indices fluctuated throughout the year

In 2023, the A-share market experienced fluctuations and adjustments, showing an overall trend of rising initially followed by a decline. The SSE Composite Index began declining in May, ending the year down 3.70 percent. The SZSE Component Index weakened from August, with a yearly decrease of 13.54

percent. The ChiNext Index started to fall in mid-April, with losses intensifying after August, resulting in a drop of 19.41 percent throughout the year. The STAR 50 Index fell by 11.24 percent over the year, while the BSE 50 Index rose by 14.92 percent.

5.2.2 The engagement of institutional investors continued to increase, further optimizing market ecosystem

In 2023, the trading volume of institutional investors on the SSE (including Northbound Bond Connect trading through the Shanghai-Hong Kong Stock Connect) stood at RMB 77.58 trillion, accounting for 43.58 percent of the total, up 0.94 percentage points year on year. In particular, the trading volume of public funds accounted for 6.11 percent, up 0.13 percentage points year on year; the trading volume of long-term funds (including social security funds, insurance funds and corporate annuities) accounted for 3.10 percent, up 0.28 percentage points year on year; the trading volume of private equity funds accounted for 16.12 percent, the highest among professional institutions, down 2.71 percentage points year on year; and the trading volume of overseas funds accounted for 11.80 percent, up 1.49 percentage points year on year, hitting a new record high. In 2023, the trading volume of institutional investors on the SZSE stood at RMB 92.33 trillion, accounting for 37.58 percent of the total, up 1.18 percentage points year on year. Specifically, the trading volume of public funds accounted for 4.31 percent, down 0.20 percentage points year on year; the trading volume of long-term funds (including social security funds, insurance funds and corporate annuities) accounted for 1.89 percent, up 0.03 percentage points year on year; the trading volume of private equity funds accounted for 14.82 percent, the highest among professional institutions, down 2.46 percentage points year on year; and the trading volume of overseas funds accounted for 10.17 percent, up 1.33 percentage points year on year, marking a new record high.

5.2.3 The financing structure was continuously optimized to serve the sci-tech innovation strategy

In 2023, a total of 103 companies made IPOs on the SSE, a decrease of 51 from 154 in 2022, with funds raised totaling RMB 193.6 billion, down 46.04 percent year on year. Among these companies, 67 were listed on the SSE STAR Market and raised RMB 143.9 billion, accounting for 74 percent of the total fund raised through IPOs, up from 70 percent in 2022. The SZSE saw a shift from traditional to new industrial structure, with companies in emerging sectors such as advanced manufacturing, biomedicine and green and low-carbon industries forming clusters, and those in strategic emerging industries making up nearly half of all listed companies. In 2023, 155 companies submitted IPO applications, of which 145 were in strategic emerging industries and 59 were “specialized, sophisticated, distinctive and innovative” enterprises, accounting for 93 percent and 38 percent, respectively.

5.2.4 Market characteristics became more pronounced with emerging industries showing a strong performance

In 2023, the technology, media and telecommunications (TMT) sector performed impressively, while traditional industries like real estate and consumer goods experienced declines. Due to positive developments such as the release of ChatGPT, progress in the Digital China initiative and Huawei's launch of smartphones with in-house chips, the communications, media, computer and electronics sectors rose by 25.75 percent, 16.80 percent, 8.97 percent and 7.25 percent, respectively, becoming key hotspots of market activity. By contrast, the real estate and consumer goods industries were relatively weak, with real estate, building materials, beauty and personal care, retail, and food and beverage sectors falling by 26.39 percent, 22.64 percent, 32.03 percent, 31.30 percent and 14.94 percent respectively.

5.2.5 The index system with Chinese characteristics was improved and index investment continued to scale up

In 2023, the SSE and SZSE focused on strengthening their index systems to support investor needs by increasing the supply of high-quality broad-based investment options and enriching thematic indices aligned with key areas and national strategies, continuously improving the index system with Chinese characteristics. First, the SSE and SZSE continued to develop a distinctive broad-based index system. The SSE introduced the STAR 100 Index and four additional thematic indices on the STAR Market, further enhancing the multi-tiered STAR Market index system to support the development of new quality productive forces and the realization of greater self-reliance and strength in science and technology. The SZSE, building on core indices such as the SZSE Component Index, SZSE 100 Index and ChiNext Index, adopted a stock selection method distinct from the traditional "total market capitalization + liquidity" model and launched innovative broad-based indices such as the SZSE 50 Index, SZSE Main Board 50 Index and ChiNext series of indices, providing investment-oriented and representative additions that reflect China's evolving industrial structure from multiple perspectives. Second, the SSE and SZSE focused on supporting national strategies and key areas. They launched indices aligned with major strategies and key sectors, such as the SZSE Digital Culture Index for the digital economy, the CNI Robot Industry Index targeting advanced manufacturing, indices supporting state-owned enterprises (SOEs) and central SOEs like the CSI China Reform Central-SOEs Modern Industry Lead Index and the CSI CHENGTONG Central-SOEs Technology Innovation Index, indices for dividend repurchases including the CSI Central-SOEs Dividend 50 Index, SSE Buyback Index and CSI Buyback Index, along with the SZSE's multi-tiered ESG index system, all contributing to an index evaluation framework with Chinese characteristics. As of end-2023, the share of domestic index funds reached 2.9 trillion, with a total volume of RMB 3 trillion, up 22.88 percent and 32.74 percent respectively year on year.

COLUMN 3 Develop indices and index investment to support high-quality development of the capital market

Establishing and improving an index system with Chinese characteristics to promote the development of indices and index investment is essential for attracting MLT funds, leveraging the capital market's role as a hub and advancing the high-quality development of the capital market. Over the five years since the registration-based IPO system was rolled out, the multi-tiered capital market structure has continually improved, the quality of listed companies has significantly increased, and the pool of innovative, high-growth companies has expanded steadily, injecting new momentum into the growth of indices and related products.

1. A diversified index system is gradually taking shape to advance progress in technology finance, green finance, inclusive finance, old-age finance and digital finance

Since the launch of the registration-based IPO system reform, domestic indices have been closely aligned with national strategies, gradually forming a distinctive index system that supports high-quality development. This system now comprehensively covers various themes such as sci-tech innovation, green development, digital economy, MSBs and elderly care services. The SSE and CSI series feature over 2,400 main indices, with innovative broad-based indices like the SZSE 50 Index, SZSE Main Board 50 Index and CSI A50 Index launched in recent years. Moreover, thematic and strategy indices have been introduced, highlighting areas such as SOEs, technology, share repurchases, dividends and ESG. These index products track a range of asset classes, including stocks, bonds, commodities and funds. As the demand of social security funds and pension funds for medium-to long-term asset allocation increases, stable strategy indices that comprise a broad selection of assets, such as the SZSE Dividend 300 Index, are poised to see new growth opportunities. A diversified index system is taking shape, contributing to progress in technology finance, green finance, inclusive finance, old-age finance and digital finance.

2. The continuous inflow of incremental funds helps promote investment-side development

Indices and index investment play a vital role in directing the flow of MLT funds and optimizing market resource allocation, continuously injecting fresh capital into the real economy to support its high-quality development. This makes them an important lever for investment-side reform. In 2023, domestic index investment achieved countercyclical growth amid an uncertain market environment, with a cumulative net capital inflow of RMB 569.4 billion into index products, including RMB 438.6 billion into the SSE and CSI index products. In particular, broad-based SSE and CSI indices saw a net capital inflow of RMB 279.0 *billion, and CSI 300 Index and STAR 50 Index recorded net capital inflows of RMB 146.7 billion and RMB 79.3 billion, respectively. The volume of domestic index funds increased by about 33 percent year on year, further reinforcing their role as a market "stabilizer" and contributing positively to uplifting market confidence and supporting residents' wealth management.*

3. China's capital market has become more internationalized, with high-level two-way opening-up further strengthened

In recent years, international cooperation on indices has been continuously strengthened, accelerating the formation of a two-way opening-up structure of index investment. Overseas funds tracing domestic broad-based indices, such as CSI 300 Index, SSE 100 Index, ChiNext Index and STAR 50 Index, have been launched. As of end-2023, the number of ETFs eligible for trading under the Shanghai/Shenzhen-Hong Kong Stock Connect increased to 138, up 55 percent from 2022. This has further enhanced the effectiveness of MLT fund connectivity between the mainland and Hong Kong markets, contributing to the internationalization of China's capital market.

5.3 Reform and innovation of the stock market

5.3.1 Efforts were made to facilitate the smooth comprehensive implementation of the registration-based IPO system with a focus on enhancing market functionality

The comprehensive implementation of the registration-based IPO system represents a significant reform that affects the entire capital market. To implement the *Rules on Fully Implementing the Registration-based IPO System* issued by the CSRC in February 2023 for the comprehensive adoption of this system, the SSE and SZSE have focused on refining the review, regulation and service processes to ensure the high-quality operation of the registration-based IPO system. In 2023, the SSE steadily advanced its project review processes, issued 26 key rules, and smoothly transferred 248 main board listing projects under review, successfully promoting the listing of the first batch of companies under the new system. In terms of IPO, the SSE accepted applications from 278 companies, with 98 completing registration. In terms of refinancing, the SSE accepted applications from 237 companies, with 118 successfully registered, raising a total of RMB 304.4 billion. In terms of mergers and acquisitions (M&As) and restructuring, the SSE accepted 20 applications to purchase assets by issuing shares, with a transaction volume of RMB 109.4 billion and supporting funds raised amounting to RMB 39.8 billion. The SZSE, on the other hand, focused on enhancing the review system, aiming to establish a transparent, clean and high-quality operating mechanism for the registration-based IPO system. It issued monthly updates on review progress and published typical supervisory cases in a timely manner to ensure transparency, standardization and predictability throughout the listing process. It also unveiled the "clean registration-based IPO system" action plan, introducing over 40 preventive measures. In strict compliance with national industrial policies, the SZSE channeled resources to key sectors, strengthened supervision of pricing during issuance, regulated investment value research reports issued by intermediaries and increased oversight of the price inquiry process to effectively address issues like overpricing, underperforming IPOs, and oversubscription.

5.3.2 Active support was extended to key areas and weak links to promote high-quality development

High-quality development is the primary task in building China into a modern socialist country in all respects. In response, the SSE and SZSE made significant strides in addressing key areas and weak links in development, with sustained efforts in the following areas. First, they supported the listing of model "key and core technology" enterprises, enterprises working on resolving stranglehold problems as well as those aimed to substitute imported technologies or products with domestically developed ones. In 2023, the SSE supported 66 companies in listing on the STAR Market, of which 34 belonged to this category, accounting for 51.5 percent of the total. It compiled a list of "key and core technology" enterprises, with approximately 90 percent of them receiving relevant services. Over the year, the SSE also assisted eight central SOEs and 31 national-level specialized, sophisticated, distinctive and innovative "little giant" enterprises in their listing on the STAR Market. Meanwhile, the SZSE carried out a comprehensive review of SZSE-listed companies working on making breakthroughs in core technologies in key fields and developed and continuously refined a core technology identification and evaluation model. It also visited key companies engaged in resolving stranglehold problems and created a "regulatory service toolbox" to better support the high-quality development of these companies. Second, the SSE and SZSE continued to build an ecosystem for the realization of greater self-reliance and strength in science and technology. The SSE launched industry communication platforms and organized a series of seminars focusing on cutting-edge sectors such as third-generation semiconductors and artificial intelligence. It also established a STAR Market Enterprise Cultivation Center in Central China, laying the foundation for a cultivation system that covers the entire growth cycle of tech enterprises. The SZSE, following the principles of "stability first, small steps and fast progress", implemented a phased digital exchange strategy, demonstrating the synergy between intelligent technologies and organizational optimization. During this process, the SZSE aligned with best practices of international exchanges, while prioritizing domestic innovation in key areas. Third, the two exchanges actively advanced the commercialization of sci-tech innovations. The SZSE focused on its Scientific and Technological Achievements and Intellectual Property Trading Center and leveraged digital platforms such V-Next, Cultivation Connect, Tutoring Connect and Growth Connect to better facilitate investment and financing connections for high-quality innovative enterprises. The center established partnerships with 25 organizations and institutions, providing services to over 1,400 technology and intellectual property projects and tech enterprises, with a total transaction volume exceeding RMB 1.1 billion.

5.3.3 SSE and SZSE adopted multiple measures to improve the quality of listed companies with a focus on their core regulatory responsibilities

Listed companies are the foundation of the real economy, and improving their quality is essential for achieving high-quality economic development. The SSE and SZSE made continuous efforts to deepen reforms, strengthen regulation and optimize services to promote the continuous improvement of listed companies. First, efforts were made to help listed companies grow better and stronger. The SSE and SZSE worked to enhance the direct financing function of the securities market, expand financing channels and improve the quality and efficiency of M&As. Meanwhile, they implemented reforms of the independent director system and strengthened training for the "critical few" to optimize the corporate governance of listed companies. Second, comprehensive oversight of listed companies was strengthened. The SSE and SZSE followed the requirements for fully implementing the registration-based IPO reform and issued a number of supporting business rules and guidelines, clarifying institutional arrangements for listing review, underwriting, continuous supervision and trading. They encouraged listed companies to release positive information through various channels such as performance forecasts, performance snapshots and operational data, advanced the digital and intelligent transformation of corporate regulation and aligned regulatory efforts with industrial policies. Third, the collaborative efforts of all market players were leveraged. The SSE and SZSE maintained regular communication with local governments to strengthen regulatory exchanges and information sharing and jointly address major risks of listed companies. They also strengthened the supervision of intermediaries and urged them to diligently fulfill their duty as "gatekeepers" of the market.

5.3.4 Institutional and product service systems to support sci-tech innovation were strengthened

In alignment with the innovation-driven development strategy and to support self-reliance and strength in science and technology, the SSE and SZSE broadened their range of financial products and optimized the ecosystem for innovation capital. The SSE actively advanced the development of fund products tracking STAR Market indices and launched two STAR Growth ETFs and eight STAR 100 ETFs in 2023. It also promoted the establishment of a STAR Biopharmaceutical ETF, which raised RMB 350 million. As of end-2023, the SSE had 24 STAR Market ETFs listed, covering broad-based, mid-cap, thematic and strategy indices related to the STAR Market. Meanwhile, the SZSE enhanced services for enterprises working on making breakthroughs in core technologies in key fields, strengthened its efforts to foster strategic emerging and future industries, accelerated the development of financial products that support sci-tech innovation and expanded the index and product systems across key sectors, including advanced manufacturing, digital economy and green and low-carbon development. It introduced new indices, such as the ChiNext Strategic Technology Index and the SZSE Private-owned Enterprises Technical Innovation Index, along with a range of indices focusing on key sectors, such as the CNI Robot Industry Index, CNI New Energy Battery Index and SZSE Data Factor Index. Since 2023, the SZSE has launched 23 equity-based ETFs focused on technological innovation, including IT Innovation ETFs, Semiconductor Materials ETFs and Robotics ETFs, with a total issuance volume of RMB 22.623 billion.

5.3.5 Efforts were directed towards advancing the fund market to meet investors' wealth management needs

To give full play to the fund market's role in asset allocation and wealth management while catering to investors' diverse financial needs, the SSE and SZSE expanded their range of index funds and product offerings, introduced innovative and specialized indices and refined supporting rules to further enhance the investment value of indices. In terms of products, the SSE's 123 broad-based ETFs now cover major indices such as SSE 50 Index, CSI 300 Index, CSI 500 Index, CSI 1000 Index, CSI 2000 Index, STAR 50 Index and STAR 100 Index. The SZSE, in collaboration with China Securities Index Co., Ltd. (CSI) and Shenzhen Securities Information Co., Ltd., developed a variety of distinctive indices, including broad-based indices like SZSE 50 Index, indices focusing on high-quality core assets in the A-share market such as CSI A50 Index and Market Top 50 Index, as well as select industry indices targeting sectors such as semiconductors, computers, communication equipment and telecom operation services. In terms of mechanisms, the SSE further expanded the pilot scope for the collective subscription services, successfully launching all 19 pilot targets in 2023. It also facilitated the listing of the first ETF adopting a settlement model similar to that for qualified foreign institutional investors (QFIIs). In terms of rules, both the SSE and SZSE enhanced their supporting rules. The SSE released *Guideline No.1 for Application of Fund Self-Regulation Rules—Index Fund Development* while the SZSE issued *Guideline No.1 for the Securities Investment Fund Business—Index Fund Development*, aimed at fostering a diverse and quality product lineup.

5.4 Risk prevention and resolution

5.4.1 Various measures were taken to maintain market stability and boost market activity

First, the investment-side reform was deepened for greater market stability. In 2023, the SSE actively promoted the development of indices and index investment with Chinese characteristics, creating or revising 370 indices, including Central SOEs 50 Index and SOEs 50

Index. It launched 76 new ETFs, with the SSE Dividend Total Return Index, which is heavily composed of central SOEs and SOEs, growing by around 9 percent over the year. Meanwhile, the SZSE boosted ETF issuance, channeling incremental capital of approximately RMB 134.9 billion into the A-share market. Second, counter-cyclical adjustment policies were implemented to stimulate trading and improve market activity. The SSE and SZSE lowered the margin ratio for margin trading and short selling, reduced stock transaction fees by 30 percent, introduced fee reductions and daily incentive payments for stock options market makers, eased collateral requirements for delisted stocks and released guidelines for share reduction through inquiry transfer or placement by shareholders of the companies listed on the SZSE ChiNext Board, encouraging all players to promote market stability. Third, financing was optimized and the pace of IPOs was managed. The SZSE established a sound review and communication mechanism for large refinancing activities, guiding listed companies to determine financing timing and volume prudently. From August to December 2023, 31 IPOs were launched, a 70 percent decrease compared to January through July. Fourth, market confidence was boosted. Following the principles of "communicating positive signals, fostering positive expectations and uplifting investor confidence", the SZSE launched tiered promotional initiatives and published over 1,800 reports. In addition, it encouraged over 500 listed companies to engage in share repurchases and increases, with a volume totaling RMB 72.6 billion, while also urging them to increase dividend payouts.

5.4.2 Market-oriented, law-based and diversified risk mitigation methods were strengthened

First, efforts to prevent and resolve risks were continually reinforced. In 2023, the SSE reduced the number of high-risk companies by ten and implemented prudent regulatory measures to handle companies showing signs of risk. It supported the stable and healthy development of real estate firms by implementing policies of strengthening support from the capital market. Over the year, it supported 23 listed real estate-related companies in disclosing refinancing announcements, two real estate companies in announcing restructuring and additional financing plans and two real estate companies in releasing plans for issuing publicly traded REITs. The SZSE established a long-term risk reduction mechanism and conducted regular risk investigations to support the resolution of risks in key areas and strengthen risk regulation of related companies. It encouraged listed companies and the "critical few" to actively disclose share repurchase and increase plans to expedite the pace of these actions. Additionally, it cracked down hard on violations of laws and regulations, intensified accountability for the "critical few", including controlling shareholders, actual controllers, directors, supervisors and senior executives, enhanced standards for identifying financial fraud, and imposed strict penalties for violations related to shareholding reduction. Second, the risk early warning system was refined. Following the principle of early monitoring and proactive management, the SSE and SZSE optimized the joint mechanism for studying and assessing market risks, enhanced the market risk monitoring and early warning indicator system, and conducted comprehensive, round-the-clock risk assessments. They also developed an action plan to improve risk prevention and mitigation capabilities, organized emergency drills for key areas, strengthened the risk accountability mechanism and worked to refine the investigation mechanism for risk events. Third, the SSE and SZSE fulfilled their responsibilities regarding delisting. In 2023, the SSE and SZSE conducted systematic assessments of delisting risks, closely monitored companies facing trading-related delisting risks and strengthened inquiry and regulatory collaboration. Over the year, they successfully promoted the compulsory delisting of 44 companies in an orderly manner.

5.5 Opening-up of the stock market

5.5.1 The connectivity mechanism between domestic and overseas stock exchanges was optimized

5.5.1.1 The Shanghai/Shenzhen-Hong Kong Stock Connect schemes were optimized

In 2023, the Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect schemes operated smoothly and in an orderly manner, with continued improvements to their mechanisms. On March 3, 2023, the SSE and SZSE officially released revised implementation measures for the Shanghai/Shenzhen-Hong Kong Stock Connect business, specifying arrangements to further expand the scope of eligible stocks, which came into effect on March 13. For the Shanghai-Hong Kong Stock Connect, eligible stocks for Northbound Bond Connect trading were expanded to include mid- and small-cap stocks on the SSE, raising market capitalization coverage to 90.94 percent, while those for Southbound trading incorporated stocks of eligible foreign companies listed in Hong Kong. Following this expansion, the number of stocks eligible for Northbound Bond Connect trading under the Shanghai-Hong Kong Stock Connect increased by 598 to 1,192, while the number of stocks eligible for Southbound trading increased to 560, including four newly added stocks from foreign companies. For the Shenzhen-Hong Kong Stock Connect, the benchmark index of stocks for Northbound Bond Connect trading was expanded to the SZSE Composite Index, while stocks eligible for Southbound trading included the stocks of eligible foreign companies primarily listed in Hong Kong from the Hang Seng Composite Index. As of end-2023, there were 1,526 stocks eligible for Northbound Bond Connect trading under the Shenzhen-Hong Kong Stock Connect, with 626 newly added, covering 86 percent of A-shares on the SZSE by market capitalization; and there were 555 stocks eligible for Southbound trading, with eight newly added, representing 80 percent of the market capitalization of the main board of Hong Kong Exchanges and Clearing Limited (HKEX). On April 24, the optimized trading calendar of Shanghai/Shenzhen-Hong Kong Stock Connect was launched, reducing the number of annual non-trading days by about half and allowing trading on all shared trading days in both the mainland and Hong Kong markets, thereby ensuring the continuity and convenience of investors' trading. From their launch to end-2023, the Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect schemes operated stably with active trading, with the cumulative trading volume reaching RMB 74 trillion for the former and RMB 75 trillion for the latter.

5.5.1.2 The depository receipt business under the stock connect scheme was advanced

On July 18, 2023, the SSE and SZSE issued the revised interim measures for the listing and trading of depository receipts under the stock connect scheme with overseas stock exchanges, specifying procedures and requirements for issuing global depository receipts (GDRs) following the implementation of the filing-based system for overseas listing to better support high-quality domestic companies in raising funds abroad for development. In 2023, six SSE-listed companies issued GDRs, raising USD 2.061 billion in total, up 59.4 percent year on year. Since the launch of the Shanghai-London Stock Connect scheme in 2019, 14 SSE-listed companies issued and listed GDRs overseas, collectively raising USD 9.192 billion. On July 11, 2023, SZSE-listed company Yongtai Technology successfully listed its GDRs on the London Stock Exchange (LSE), marking the official start of the Shenzhen-London Stock Connect. As of end-2023, nine SZSE-listed companies issued and listed GDRs in Switzerland and the UK, collectively raising USD 3.008 billion.

5.5.1.3 Efforts were made to enrich products under the ETF connectivity scheme

In 2023, the SSE and SZSE enriched product offerings under the ETF connectivity scheme between domestic and overseas markets to provide more diverse options for international investors. In May, the SSE signed a Memorandum of Understanding (MoU) with the Singapore Exchange (SGX) to launch an ETF product link, and in December, the first pair of ETFs under the product link were listed simultaneously on the SSE and the SGX. As of end-2023, the Huatai-PineBridge CSOP iEdge Southeast Asia+ TECH Index ETF listed on the SSE had a size of RMB 680 million, an increase of 164 percent from its initial size of RMB 258 million. The SZSE continued to work with the SGX to promote communication and collaboration between issuers in both markets, resulting in the listing of the CGS Fullgoal CSI 1000 ETF, jointly developed by CGS-CIMB and Fullgoal, on the SGX on November 9. As of end-2023, the SZSE introduced a total of 10 ETFs under connectivity schemes in partnership with the HKEX, Japan Exchange Group (JPX) and SGX.

5.5.2 Capital market opening-up and cooperation were deepened

5.5.2.1 International cooperation was expanded

In 2023, the SSE and SZSE expanded their global cooperation networks and advanced exchanges and collaboration with overseas markets. On March 24, the SSE and the Stock Exchange of Thailand (SET) entered into a cooperation on the mutual display of index quotes, with the first five SSE and CSI indices showcased on the SET's SETTRADE website and three core SET indices displayed on the official website of CSI. In 2023, the SSE signed MoUs with the Mongolian Stock Exchange (MSE), Saudi Tadawul Group and Dubai Financial Market (DFM) and organized the Mongolian Capital Markets Day. As of end-2023, it had signed MoUs with 58 overseas exchanges and market institutions. On April 7, the SZSE launched a similar index quotes sharing partnership with the SET, with the first six SZSE indices, such as the SZSE Component Index, ChiNext Index and SZSE 100 Index displayed on the SET's SETTRADE website and three core SET indices displayed on the CNI Index website. As of end-2023, the SZSE formed mutual index quotes display partnerships with nine overseas exchanges. On December 15, it signed a market data cooperation agreement with the HKEX, planning to bring HKEX's market data into its data center and provide data redistribution services to mainland users through its subsidiaries. In 2023, the SZSE signed MoUs with the Saudi Tadawul Group, Abu Dhabi Securities Exchange (ADX), London Stock Exchange Group (LSEG) and The Philippine Stock Exchange, Inc. (PSE) to explore pragmatic bilateral cooperation in product development, market cultivation and experience sharing. As of end-2023, the SZSE signed 62 cooperation agreements with overseas institutions.

5.5.2.2 Services for international investors were enhanced in both quality and efficiency

In 2023, the SSE and SZSE further enhanced their service systems for overseas investors and conducted multi-tiered communication and promotional activities to help overseas investors gain an in-depth understanding of China's capital market. First, they organized international roadshows to strengthen communication. Throughout the year, the SSE organized 4 online international roadshows and 20 activities for international investors to visit SSE-listed companies, where nearly 100 international investment institutions engaged directly with senior executives of SSE-listed companies. SSE representatives visited eight countries and regions in the Middle East, Southeast Asia, Asia-Pacific and Europe six times, visited overseas exchanges, regulatory bodies and international institutional investors, and held two promotional meetings. In Hong Kong SAR of China, the SSE held two large annual promotional events and hosted brand activities such as the Hong Kong Salon and one-on-one visits to engage with local investors and promote the domestic capital market. Similar promotional activities were also held in London to establish a communication platform with international stakeholders. The SZSE organized multiple roadshows for SZSE-listed companies in Switzerland, Germany, Hong Kong SAR of China, Singapore and the Middle East, helping 41 representative listed companies in sectors like advanced manufacturing, digital economy, green and low-carbon development engage in in-depth exchanges with international investment institutions. In Hong Kong SAR of China, the SZSE established a regular communication mechanism with 10 leading overseas securities companies, hosted over

120 one-on-one and one-to-many promotional meetings with major overseas institutions and co-organized four Shenzhen-Hong Kong Stock Connect roadshows with HKEX. Second, the SSE and SZSE hosted global investors conferences. The SSE held the Shanghai Stock Exchange Global Investors Conference 2023 (SSE GIC 2023), attracting over 150 domestic and international investment institutions. The SZSE hosted the 2023 Global Investor Conference, and more than 300 representatives from investment institutions in North America, Europe, the Middle East and Southeast Asia as well as representatives from domestic listed companies and intermediaries were present. Third, the management of foreign investor relations of listed companies was strengthened. The SZSE held its first training seminar on foreign investor relations management for listed companies, covering 21 SZSE-listed companies with high interest from foreign investors. This seminar provided insights into the overall foreign investment landscape for SZSE-listed companies, key areas of interest for foreign investors and strategies for effective communication. Fourth, the SSE and SZSE promoted green finance internationally. The SSE highlighted green topics in dedicated sessions at the SSE GIC 2023 and international roadshow events to promote sustainable investment. It also organized related activities to facilitate exchanges and interactions between international investors and SSE-listed companies on ESG topics and keep SSE-listed companies abreast of international developments in sustainable information disclosure rules.

5.5.2.3 Efforts were made to support the high-quality development of BRI projects

In 2023, the SSE and SZSE made significant strides in practical bilateral cooperation with the capital markets of BRI countries. The SSE, leveraging overseas shareholding institutions, supported the international expansion of Chinese-funded enterprises and the listing of offshore RMB green bonds worth RMB 1.6 billion issued by the BOC Frankfurt Branch on the China Europe International Exchange (CEINEX) to advance BRI projects. In addition, the listing of CEINEX's A-share index derivatives was included in the outcomes of the 3rd China-Germany High-Level Financial Dialogue. The SZSE deepened technical cooperation with BRI countries. On May 15, 2023, it delivered an upgraded trading and surveillance system for the Pakistan Stock Exchange (PSX), marking the first overseas deployment of China's core financial infrastructure system. Through its V-Next platform, the SZSE organized 21 roadshows and matchmaking events throughout the year to promote cross-border investment and financing in BRI markets. As of end-2023, the platform's global cooperation network spanned 29 Belt and Road partner countries and regions, supporting 670 BRI projects.

5.5.2.4 The SSE and SZSE actively participated in international industry governance

In 2023, the SSE earnestly performed its duties as a member of the World Federation of Exchanges (WFE), attended WFE board meetings and the 62nd WFE General Assembly & Annual Meeting and hosted Ring the Bell for Gender Equality 2023. It also actively participated in the relevant activities of international organizations and co-hosted the Belt and Road Financial Cooperation Committee Symposium & "Walking Into SSE" event in collaboration with the Asian Financial Cooperation Association (AFCA). The SSE provided feedback on issues such as regulation, market structure and corporate financing to international organizations such as the International Organization of Securities Commissions (IOSCO) and participated in various meetings and seminars of the Asian and Oceanian Stock Exchanges Federation (AOSEF) and the Boao Forum for Asia (BFA). Moreover, it actively contributed to the WFE's annual sustainability survey on exchanges, with several of its initiatives highlighted on the WFE website. The SZSE participated in 28 events held by seven international organizations such as the WFE and the International Capital Market Association (ICMA), including annual meetings, working committee meetings, quarterly seminars and exchange meetings. Furthermore, it published three articles in official journals of international organizations to share its experience and practices in areas such as support for green development and successful cases of sustainability disclosures by listed companies, providing valuable insights to support institutional building of global capital market governance.

5.6 Outlook of the stock market

In 2024, China's stock market will better fulfill its role in supporting economic recovery and high-quality development. First, the registration-based IPO system reform will be advanced, with the issuance and underwriting system continuously optimized, the regulation of all stages strengthened and the quality and efficiency of resource allocation further improved. Second, the capability of the capital market to serve greater self-reliance and strength in science and technology will be enhanced, with improved mechanisms to support sci-tech innovation and more comprehensive targeted services for tech enterprises. Third, investment and financing will achieve more coordinated development, with continuous reforms on the investment side and strengthened efforts in investor education and protection. Fourth, the quality of listed companies will continue to improve, as rules and business environment are continuously optimized, regulation is strengthened across all stages and operations of listed companies become more standardized. Fifth, the high-level opening-up of the capital market will be expanded, with higher-standard connectivity and deeper exchanges and cooperation advanced and services for international investors further improved. Sixth, risk prevention and control capabilities will be comprehensively enhanced, with better risk identification, improved counter-cyclical adjustment mechanisms and effective management of risks in key areas.

BOX 4 Fully support the smooth implementation of the registration-based IPO system across the board

The comprehensive implementation of the registration-based IPO system represents a transformative reform in China's capital market and is of great strategic significance for enhancing capital market functionality, increasing the proportion of direct financing and supporting high-quality development. This reform was launched smoothly in April 2023, marking a milestone in the evolution of China's capital market. Under the guidance of the CSRC, the SSE and SZSE developed and revised supporting business rules in line with the overall requirements of the reform, the Securities Law and CSRC regulations, strengthening the institutional foundation for the registration-based IPO system.

Upholding the general principle of pursuing progress while ensuring stability, the SSE, building on the lessons from the pilot of the registration-based IPO system on the STAR Market, made full preparations for its comprehensive implementation. First, the SSE ensured the timely release and implementation of 26 supporting business rules and the establishment of a new Listing Review Committee and Review Committee of M&A and Restructuring. Second, it transferred 248 applications for IPO on the Main Board in a timely manner and supported the listing of the first five companies on the Main Board as scheduled under the registration-based system. Third, the SSE made coordinated adjustments to its business rules, with 20 rules revised or abolished.

On the other hand, the SZSE maintained the distinctive positioning of its ChiNext Board while optimizing the role of the Main Board, fostering a complementary market structure that supports differentiated development. This ensured a more mature and standardized foundation for the registration-based IPO system, effectively controlled malpractices in the capital market, and led to inspiring outcomes of the reform. First, the SZSE implemented key reforms. It successfully completed the ChiNext Board reform, piloted the registration-based IPO system and merged its SME Board into the Main Board, facilitating the smooth comprehensive implementation of the registration-based IPO system with optimized registration procedures. Second, the SZSE strengthened the institutional foundation for the registration-based system. It optimized refinancing and restructuring mechanisms, issued updated supporting rules for independent directors, improved investor return capabilities, standardized share reduction practices and refined regulatory requirements for fundraising. Third, the SZSE made efforts to enhance the quality of listed companies. It developed and implemented plans to improve the quality of listed companies, support SOEs and private enterprises and reduce risks, aiming to *forestall and defuse risks in key areas such as the real estate sector and capital-based companies. Fourth, the SZSE continued to improve the normalized delisting mechanism. It implemented new delisting reforms, enhancing market-based exits. In 2023, the SZSE delisted 12 companies whose shares traded below the face value of RMB 1 for 20 consecutive days, exceeding the total number of delisting for this reason in previous years. Auditors' role as "gatekeepers" was strengthened and the combined delisting criteria of "net profit + revenue" proved effective. Fifth, the SZSE cracked down hard on violations of laws and regulations. It intensified efforts to prevent and combat fraud, with disciplinary actions against fraudulent companies in 2023 up 80 percent from 2021. The SZSE also took swift measures, including disciplinary actions and trading restrictions, against illegal share reduction and cracked down on the illegal use of raised funds by enhancing regulatory coordination with the CSRC and its regional offices.*

BOX 5 The ETF market actively supported national strategies and promoted high-quality development of the real economy

In 2023, the SSE and SZSE continued to advance ETF product and mechanism innovation with a focus on serving national strategies, supporting the real economy and aligning with the capital market's role in benefiting the people. It also enhanced the ETF product lineup to better support the real economy.

First, the SSE and SZSE continued to improve ETF mechanisms and nurture the market to enable ETF, a low-cost, transparent, stable and convenient investment product, to reach a broader base of investors.

Second, they launched ETFs aligned with key areas in national economic development to meet the needs of the real economy. For example, the SZSE and index providers introduced indices such as SZSE 50 Index, SZSE Main Board 50 Index, ChiNext series, CSI Market Top 50 Index and industry select series.

Third, the SSE and SZSE expanded ETFs focusing on sci-tech innovation and green sectors to provide diverse investment options. As of end-2023, the SSE listed eight Star 50 ETFs, totaling RMB 144.3 billion, along with six thematic Star Market ETFs, totaling RMB 9 billion. In 2023, it introduced two STAR Growth ETFs targeting high-growth sectors of the STAR Market, with an issuance volume totaling RMB 2.2 billion, and launched eight STAR 100 ETFs focusing on mid-cap companies listed on the STAR Market, whose volume totaling RMB 31.3 billion as *of end-2023. The SZSE listed over 20 sci-tech innovation and green equity ETFs, such as the IT Innovation ETF, Semiconductor Materials ETF and Green Power ETF, expanding options for investing in sci-tech innovation.*

Fourth, efforts were made to enhance the central SOE ETF product lineup to support the long-term healthy development of central SOEs. To encourage market participants to fully explore the long-term investment potential of central SOEs and gradually bring their valuations to reasonable levels, the SSE's ETF market continued to support the reform of state-owned assets and enterprises, with more diversified ETFs tracking central SOEs and enterprises controlled by the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) and central and state organs. As of end-2023, the SSE offered 23 ETFs focused on SOEs and central SOEs, with a total size of RMB 45.4 billion, covering areas such as Shanghai-based SOEs, SOEs involved in the BRI, and central SOE innovation and restructuring. In 2023, it introduced nine new ETFs tracking the "1+N" series of central SOE indices compiled by CSI and Guoxin Investment Co., Ltd., with a total size of RMB 8 billion by year-end.

Fifth, the SSE and SZSE enriched cross-border ETFs to promote the two-way opening-up of the capital market. In alignment with the CPC Central Committee's decisions and arrangements on expanding financial opening-up and drawing on established cross-border ETF connectivity models, the SSE launched the first pair of products under the SSE-SGX ETF Link, while the SZSE introduced a second batch of products under the SZSE-SGX ETF Link and included 25 ETFs for Northbound Bond Connect trading under the Shenzhen-Hong Kong Stock Connect scheme. These efforts enhanced the exchanges' cross-border fund offerings, strengthened the international development capacity of the asset management industry and met residents' wealth management needs.

As of end-2023, the domestic ETF market included a total of 897 ETFs, with the total size exceeding RMB 2 trillion for the first time. Specifically, non-monetary ETFs had a total size of RMB 1.84 trillion, a year-on-year increase of RMB 497.1 billion, or 36.89 percent; and technology-focused ETFs grew by RMB 64.2 billion in size year on year. On the SSE, 539 ETFs were listed, with a total size of RMB 1.5482 trillion, up 24.91 percent year on year, and an annual turnover of RMB 21.67 trillion, up 15.87 percent. The SSE ranked first in Asia for ETF turnover and second for market size. On the SZSE, 350 ETFs were listed, with a total size of RMB 491.4 billion, representing a 38.55 percent year-on-year increase, and accounting for 24 percent of the total ETF market size, up from 22 percent at end-2022.

Chapter 6 Foreign Exchange Market

In 2023, the RMB exchange rate remained relatively stable among major global currencies. Despite its slight depreciation against the USD, the RMB stayed largely stable against a basket of currencies. The trading volume of the interbank foreign exchange market increased, with enhanced activity from overseas institutions. Multiple measures were adopted to support market development, including expanding the scope of services of the bank-enterprise foreign exchange trading platform, waiving transaction fees for some services, extending trading hours, improving capital management arrangements for overseas investors, enhancing trading mechanisms and technical services of the foreign exchange market, introducing central counterparty (CCP) clearing for G10 currency pair transactions, and strengthening financial infrastructure connectivity. These initiatives positively contributed to the high-quality development of the foreign exchange market.

6.1 Performance of the foreign exchange market

6.1.1 The RMB exchange rate remained basically stable at an adaptive and equilibrium level

In 2023, due to factors such as weak external demand, intensified geopolitical conflicts and persistently high US interest rates, the RMB exchange rate against the USD initially appreciated, then depreciated, and ultimately stabilized and rebounded at year-end, closing at 7.0920, a depreciation of 1.98 percent from end-2022. In response, the PBOC and the State Administration of Foreign Exchange (SAFE) raised the macro-prudential adjustment parameters for cross-border financing, lowered the foreign exchange RRR, guided market expectations and managed supply and demand in the foreign exchange market to keep the RMB relatively stable against a basket of currencies. The CFETF RMB Index and the RMB indices based on the BIS and SDR currency baskets experienced only moderate depreciation, reaching their lowest in July, recovering by end-Q3 and declining slightly again in Q4. At end-2023, the CFETF RMB Index and the RMB indices based on the BIS and SDR currency baskets were 97.42, 102.42 and 93.23 respectively, representing a decline of 1.3 percent, 1.2 percent and 3.0 percent from end-2022. Overall, the RMB exchange rate remained relatively stable among the world's major currencies.

6.1.2 The trading volume of the interbank foreign exchange market increased

In 2023, the turnover of the interbank foreign exchange market totaled USD 41.64 trillion, with an average daily increase of 2.6 percent year on year. Specifically, the turnover of the RMB foreign exchange market registered USD 30.57 trillion, with an average daily increase of 6.4 percent year on year; the turnover of the interbank G10 currency pairs market stood at USD 1.80 trillion, with an average daily increase of 18.9 percent year on year, making it one of the fastest-growing segments; and the turnover of the foreign currency interest rate market totaled USD 9.26 trillion, with an average daily decrease of 10.5 percent year on year, largely due to factors such as the tightening of monetary policy by the Fed and higher onshore USD interest rates compared to offshore rates, which dampened liquidity.

6.1.3 The central clearing business developed steadily

In 2023, the foreign exchange clearing business in the interbank foreign exchange market operated smoothly overall and the scale of the clearing business increased steadily. The CCP clearing volume of RMB/FX transactions amounted to RMB 135.86 trillion, up 7.8 percent year on year; the CCP clearing volume of G10 currency pair transactions reached RMB 1.71 trillion; the clearing volume of foreign currency repos stood at RMB 1.78 trillion, up 24.0 percent year on year; and the centralized bilateral clearing volume of foreign exchange transactions was RMB 2.41 trillion, up 240.3 percent year on year.

In 2023, participants in the foreign exchange clearing business continued to grow in number. The CCP clearing business of RMB/FX transactions saw 9 new participants, making the total number of participants 85 at year-end. The CCP clearing business of G10 currency pair transactions had an initial group of 24 participants, with 8 new participants after its launch, making the total number of participants 32 at year-end. The foreign currency repo clearing business saw 5 new participants, making the total number of participants 63 at year-end. The centralized bilateral clearing business of foreign exchange transactions saw 3 new participants, making the total number of participants 11 at year-end.

6.2 Main features of the foreign exchange market

6.2.1 RMB exchange rate fluctuated in both directions

In 2023, the RMB exchange rate was quite flexible and its two-way fluctuation became the norm. It managed to restore equilibrium quickly after external shocks, effectively playing its role as an auto stabilizer in macroeconomic management and for the balance of payments. The annualized volatility of the closing price of the RMB exchange rate against the USD for the year was 4.9 percent, down 1.5 percentage points from 2022, the second highest since the

RMB exchange rate reform in 2015. The average daily fluctuation in the RMB exchange rate against the USD registered 269.9 bps, down 30.3 bps from 2022.

6.2.2 The spread between onshore and offshore RMB exchange rates remained generally stable

At end-2023, the offshore RMB exchange rate against the USD closed at 7.1248, a depreciation of 2.9 percent from end-2022. Throughout the year, the onshore and offshore RMB exchange rates generally moved in sync, with the offshore rate primarily following the depreciation trend of the onshore rate. The average daily spread between onshore and offshore RMB exchange rates was -78 bps, narrowing by 6.8 bps from the previous year. The spread was notably larger only in August, when it reached a daily average of -131 bps. Despite the depreciation of the RMB, the spread between onshore and offshore RMB exchange rates remained significantly lower than historical levels, reflecting the effectiveness of liquidity adjustment measures in the offshore RMB market and a relatively low market expectation of further depreciation (see Figure 6.1).

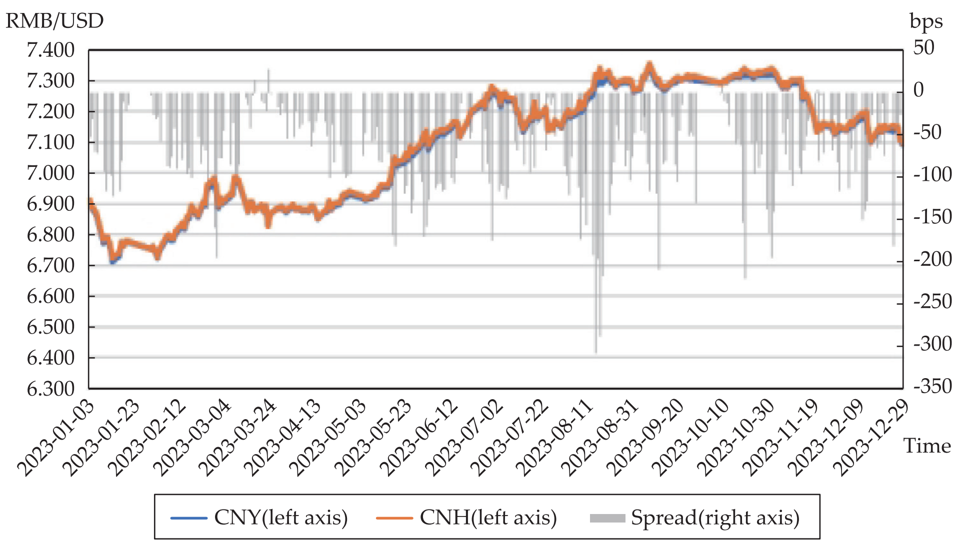

Figure 6.1 Onshore and offshore RMB spot exchange rates against the USD in 2023

(Source: CFETS)

6.2.3 Overseas institutions became more active in transactions

In 2023, the trading activity and market share of overseas institutions in the interbank RMB foreign exchange market continued to increase. Over the year, trading by overseas institutions amounted to USD 1.5 trillion, with the daily average standing at USD 6.12 billion, up 31.3 percent year on year. The trading volume of overseas institutions accounted for 2.4 percent of the total, up 0.5 percentage points from the previous year, marking the first time it surpassed the 2 percent threshold. By products of trading, spot and swap transactions were the main contributors to growth, with average daily trading volumes of USD 1.04 billion and USD 4.81 billion respectively, up 25.7 percent and 34.9 percent year on year, accounting for 16.9 percent and 78.6 percent of the total turnover of overseas institutions. By institution types, the trading volumes of participating banks and clearing banks increased significantly, with average daily trading volumes of USD 3.59 billion and USD 1.07 billion, both showing year-on-year increases of over 40 percent.

6.2.4 The liquidity of domestic foreign currency tightened significantly in mid-year in the context of USD interest rate hikes

From January to July 2023, due to interest rate hikes by the Fed, the Secured Overnight Financing Rate (SOFR) increased overall, rising from 4.3 percent at the beginning of the year to 5.3 percent. Starting in August, the Fed paused its rate hikes, and the SOFR fluctuated between 5.3 percent and 5.4 percent. Meanwhile, the trajectory of the domestic overnight USD lending rate was basically consistent with the SOFR. For most of the year, the overnight USD interest rate spread between the onshore and offshore markets (onshore-offshore, the same hereinafter) remained positive, indicating overall tight market liquidity. Specifically, from January to early February, the spread remained negative, fluctuating between -2 bps and -0 bps, reflecting relatively adequate market liquidity at the beginning of the year. From mid-February to year-end, the spread turned positive and liquidity tightened. In mid-year, domestic USD liquidity became highly strained. Between May and June, as the RMB depreciated, the interest rate spread rose to around 20 bps, reaching a peak of 23 bps in late June. After July, as the RMB exchange rate stabilized, the spread narrowed sharply, gradually falling to a low level of 6 bps (see Figure 6.2).

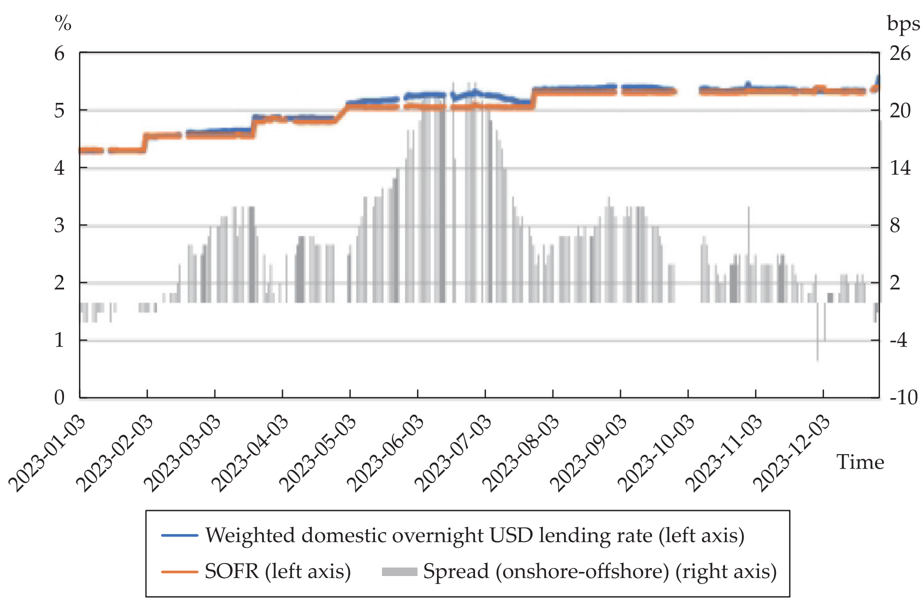

Figure 6.2 Domestic overnight USD lending rate and USD interest rate spread between the onshore and offshore markets

(Source: CFETS)

6.3 Innovation and institutional construction

6.3.1 Quality and efficiency of services for the real economy improved

In 2023, the CFETS continued to expand the scope of services of the bank-enterprise foreign exchange trading platform, enhanced platform functionality in alignment with client market demands and improved the efficiency, flexibility and convenience of corporate foreign exchange transactions. By year-end, the platform's corporate user base exceeded 1,000 companies. In July, the CFETS issued the *Notice on Extending the Transaction Fee Exemption for Selected Directly Traded Currency Pairs* in support of the BRI. In December, it released the *Notice on Extending the Transaction Fee Exemption for Foreign Exchange Derivatives Trades by Micro, Small and Medium-sized Enterprises in the Interbank Foreign Exchange Market*, aimed at reducing hedging costs for companies and encouraging them to remain neutral to exchange rate risks.

6.3.2 Trading hours of the interbank foreign exchange market were extended

Starting from January 3, 2023, the trading hours of the interbank RMB foreign exchange market were extended from 11:30 p.m. to 3:00 a.m. the next day (Beijing time), covering additional trading periods in the Asian, European and North American markets. This extension is expected to deepen and broaden the domestic foreign exchange market, promote coordinated development of onshore and offshore foreign exchange markets, enhance convenience for global investors and further boost the attractiveness of RMB assets.

6.3.3 Efforts were made to facilitate foreign exchange conversion and risk management for overseas investors in China's bond market

In April 2023, in accordance with the *Rules on Funds Invested by Overseas Institutional Investors in China's Bond Market* (Yinfa No.258 [2022]), the CFETS issued the *Notice on the Enhanced Administrative Arrangements for Funds Invested by Overseas Institutional Investors in China's Bond Market* and updated the *Guidelines for Main Brokerage Business in the China Interbank Foreign Exchange Market*, clarifying foreign exchange transaction arrangements for overseas institutions directly investing in China's bond market through multi-level custody, settlement agency or other channels, and further enhancing the convenience and flexibility of overseas institutions in managing foreign exchange risks.

6.3.4 Foreign exchange market trading mechanism and technical services were improved

In January 2023, the CFETS launched currency swap trading services across both production and intra-city data centers, achieving active-active functionality within the same city and advancing remote disaster recovery capabilities, thereby improving business continuity. In December, the CFETS launched a bilateral Executive Streaming Price (ESP) trading model in the interbank RMB foreign exchange options market for market making, marking the first use of volume-based quoting and order matching mechanisms in complex derivatives trading. This greatly enhanced trading efficiency and supported price discovery in the options market.

6.3.5 CCP clearing business for G10 currency pair transactions was launched

In March 2023, the SHCH and CFETS launched CCP clearing services for G10 currency pair transactions. Those eligible for CCP clearing include G10 currency pairs bilateral trades and matching trades, with product types including spot, forward and swap contracts. The service has effectively improved capital efficiency, reduced costs for participants, enhanced settlement efficiency and helped unlock the growth potential of the domestic interbank G10 currency pairs market.

6.3.6 Financial infrastructure connectivity was strengthened

In May 2023, the CFETS introduced a straight-through processing (STP) mechanism for transactions and settlement in the foreign currency money market. In August, it established a direct link to the China Foreign Exchange Payment System (CFXPS) and launched information transmission services for foreign currency transactions, further expanding the STP service to cover all product types in the interbank foreign exchange market. This has reduced the foreign currency transaction and settlement cycle from at least one trading day to as little as 30 minutes, significantly cutting settlement delays and risks associated with funds in transit. Also in August 2023, the CFETS connected to the General Financial Information Exchange (GFIX) and introduced message matching services, expanding transaction confirmation methods and matching scope and diversifying confirmation service channels to meet market demand.

In June and October 2023, the SHCH's centralized bilateral clearing and CCP clearing services for RMB/FX transactions were successively linked to the CFXPS. Institutions participating in these services could opt for USD settlement through the CFXPS, and the SHCH would complete the settlement of USD funds using the real-time transfer message. This has expanded settlement channels, improved settlement efficiency and reduced settlement risks.

6.4 Outlook of the foreign exchange market

6.4.1 Multiple measures will be adopted to boost the capabilities of the foreign exchange market to serve the real economy

Continued efforts will be made to enhance the security and convenience of the bank-enterprise foreign exchange trading platform, with improved market transparency and standardization prioritized, to increase the market influence of the platform. Domestic exchange rate risk hedging tools will be further expanded, and derivatives lineup and functionality will be optimized. Initiatives to maintain exchange rate risk neutrality will be supported to help enterprises build awareness and capabilities for managing exchange rate risks. Financial institutions will be encouraged to strengthen services and broaden channels of exchange rate risk hedging for MSMEs. Furthermore, research is underway to introduce more currencies for trading in the foreign exchange market and to optimize trading mechanisms to meet the market demand for diversified transactions.

6.4.2 High-standard opening-up of the foreign exchange market will be advanced

The quality of capital account opening-up will be enhanced with a focus on institutional opening-up to promote connectivity between domestic and overseas financial markets and attract more foreign financial institutions and long-term capital to invest and operate in China. Efforts will also be made to enhance cross-border foreign exchange services, further facilitate cross-border RMB settlement, explore innovative foreign exchange transaction models in free trade zones and promote currency trading with Belt and Road partner countries to steadily advance RMB internationalization. In addition, the integrated regulation of the foreign exchange market from the perspectives of macro-prudential management and micro regulation will be strengthened and the monitoring, analysis and response to cross-border capital flows will be enhanced to ensure the orderly opening-up of the foreign exchange market.

6.4.3 Business innovation in the foreign exchange market will be accelerated

Overseas market makers will be introduced to diversify sources of domestic foreign currency liquidity. The scope of collateral and settlement methods of the foreign currency repo business will be expanded to meet the transaction needs of different participating institutions and improve the efficiency of financial institutions in managing foreign currency assets and liabilities. The STP mechanism for transactions and settlement will be optimized and business models and the scope of participants will be expanded to enhance operational efficiency. The period of CCP clearing for RMB/FX transactions will be extended to help clearing participants strengthen risk management, increase trading activity and enhance efficiency. Research will be promoted to improve the centralized bilateral clearing business for foreign exchange transactions and the functions of CCP clearing for foreign exchange transactions will be further optimized.

BOX 6 CCP clearing for G10 currency pair transactions was launched

Over more than a decade of development, China's interbank G10 currency pairs market has seen continuous growth in transaction volume, while setting higher requirements for the clearing and *settlement management capabilities of market participants and financial infrastructure. Previously, bilateral and matching trades that accounted for over 95 percent of G10 currency pair transactions were settled through bilateral clearing between market institutions, limiting market participants' access to the benefits of CCP clearing, such as capital savings, settlement security and reduced capital requirements.*

In response, the SHCH and CFETS launched the CCP clearing service for G10 currency pair transactions on March 20, 2023, extending the CCP clearing mechanism from the RMB foreign exchange market to the G10 currency pairs market and offering great convenience for market participants.

The service supports spot, forward and swap transactions of five currency pairs—EUR/USD, USD/HKD, USD/JPY, GBP/USD and AUD/USD, with settlement terms ranging from T+2 days to one year. As of end-2023, the service had cleared a total of 52,700 transactions, with a clearing volume of USD 240.208 billion. This contributed to increased trading activities in the G10 currency pairs market, which saw an annual transaction volume of USD 1.80 trillion, representing a year-on-year daily average growth of 18.9 percent.

Incorporating G10 currency pair transactions into the scope of CCP clearing enables the SHCH to leverage its professional strengths in clearing and risk management, enhance the efficiency and security of G10 currency pair transactions clearing and settlement and reduce costs for market participants. This move also strengthens the clearing, settlement and risk management framework of China's foreign exchange market and allows for more effective centralized risk monitoring and control.

Looking ahead, the SHCH plans to continue optimizing this service by expanding the range of eligible products and extending clearing periods. It also plans to introduce value-added services such as consolidated netting and settlement exposure management to support the high-quality development of China's foreign exchange market.

Chapter 7 Gold Market

In 2023, global gold prices surged significantly, reaching record highs. The domestic gold market saw active trading and increased demand for gold investment. Innovation in the gold market was accelerated, trading mechanisms were optimized, infrastructure development was advanced and the market achieved steady progress in opening-up and internationalization.

7.1 Performance of the gold market

7.1.1 Gold trading on the SGE①

7.1.1.1 Both gold trading volume and prices increased

In 2023, total turnover on the SGE reached RMB 19.53 trillion, up 14.62 percent year on year. Specifically, the turnover of gold trading totaled RMB 18.57 trillion, up 22.31 year on year, with a trading volume of 41,500 tons, up 7.09 percent year on year. Gold trading accounted for 95.09 percent of total transactions, further reinforcing gold's dominant position in the market. Despite a strong USD, gold prices rose throughout the year. The SGE's Au (T+D) contract opened at RMB 411.49 per gram at the beginning of 2023, peaked at RMB 485.00 per gram, and closed at RMB 479.91 per gram, representing an increase of 17.19 percent year on year (see Figure 7.1).

Figure 7.1 Gold price movements in domestic and overseas markets in 2023

(Source: SGE)

① The data of the SGE used in this chapter are calculated bilaterally.

7.1.1.2 Gold inquiry transactions saw steady growth while pricing transactions remained stable

By trading type, the turnover of the gold price matching, price inquiry and pricing businesses amounted to RMB 4.72 trillion, RMB 14.19 trillion (up 27.71 percent year on year) and RMB 617.738 billion, accounting for 24.18 percent, 72.66 percent and 3.16 percent of the total, respectively. In 2023, the turnover of the gold leasing business totaled 2,324.59 tons, up 8.28 percent year on year. Gold ETF turnover for the year reached RMB 315.558 billion, with a trading volume of 726.83 tons.

7.1.1.3 Funds clearing and delivery remained stable and orderly, and cleared funds increased overall

In 2023, the SGE cleared RMB 32.52 trillion of funds on a gross basis, up 16.85 percent year on year. The SGE cleared RMB 5.53 trillion of funds on a net basis, representing a daily average of RMB 22.877 billion, up 21.84 percent year on year. Physical gold withdrawal and deposit on the main board of the SGE amounted to 1,686.88 tons and 1,766.56 tons respectively.

7.1.2 Gold futures and options trading on the SHFE①

7.1.2.1 Gold futures prices generally rose amid fluctuations

In 2023, the dominant contract for gold futures on the SHFE opened at RMB 412.00 per gram at the start of the year, reaching RMB 484.50 per gram at its highest and RMB 409.54 per gram at its lowest, with the largest spread registering RMB 74.96 per gram. The contract closed at RMB 482.16 per gram at end-2023, an increase of RMB 70.70 per gram (17.18 percent) from RMB 411.46 per gram at end-2022.

7.1.2.2 Gold futures turnover and positions surged, and deliveries rose slightly

In 2023, the trading volume of gold futures on the SHFE totaled 52.7310 million lots (52,700 tons), reporting a year-on-year increase of 35.15 percent and a daily average of 217,900 lots, and their turnover registered RMB 23.85 trillion, representing a year-on-year increase of 55.37 percent and a daily average of RMB 98.538 billion. Daily average position and delivery stood at 358,600 lots and 5,418 lots (5.42 tons) respectively, up 42.08 percent and 5.55 percent year on year (see Figure 7.2). At end-2023, there were seven designated gold delivery warehouses, including the ICBC, Agricultural Bank of China (ABC), the BOC, the CCB, Bank of Communications (BOCOM), Shanghai Pudong Development Bank (SPDB), and Shenzhen Vpower Finance Security Co., Ltd., with 40 depository locations in total.

① The data of SHFE used in this chapter are calculated unilaterally.

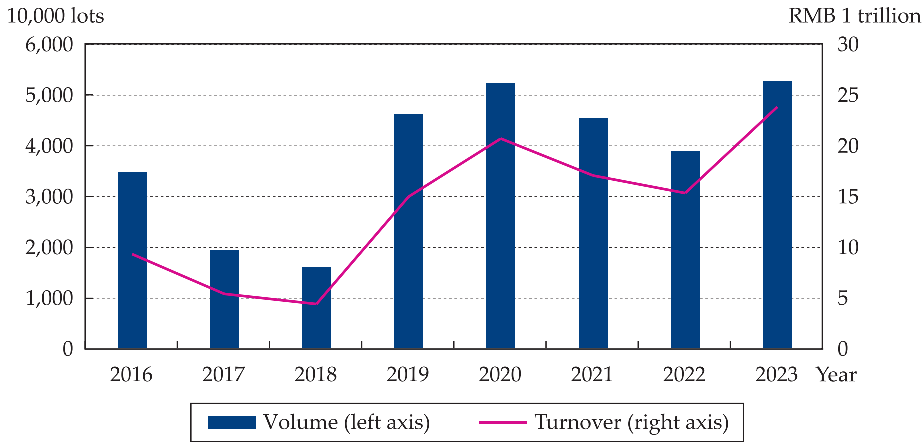

Figure 7.2 Gold futures trading on the SHFE from 2015 to 2023

(Source: SHFE)

7.1.2.3 The trading of gold futures and options was smooth

In 2023, 9.3803 million lots (9,400 tons) of gold futures and options were traded on the SHFE, with a turnover of RMB 32.064 billion. The average daily trading volume, turnover and position of gold options registered 38,800 lots, RMB 132 million, and 63,800 lots respectively. In terms of the market size of underlying assets, the ratio of the average daily trading volume of gold options to that of underlying gold futures reached 17.81 percent, and the ratio of the average daily position of gold options to that of underlying gold futures reached 17.79 percent. With regard to option exercise, gold options experienced 12 maturity dates, during which period 566 contracts exercised the option and were delisted successfully, totaling 27,800 lots, basically in the money.

7.1.3 OTC gold business of commercial banks

In 2023, commercial banks traded 3,948.62 tons of gold in the domestic OTC market, down 20.5 percent year on year. Specifically, an increase was seen in gold leasing and the sales of physical gold, gold-based structured products and other gold asset management products, and a decline was posted in account gold and gold derivatives trading.

7.1.3.1 Account gold trading volume declined

In 2023, the bilateral trading volume of account gold by commercial banks was 21.71 tons, and the turnover was RMB 9.476 billion, down 95.9 percent and 95.4 percent year on year respectively (see Figure 7.3). In particular, the trading volume and turnover of USD-denominated account gold added up to 2.94 tons and RMB 1.301 billion respectively, down 91.7 percent and 91.4 percent year on year respectively, while those of RMB-denominated account gold were 18.77 tons and RMB 8.175 billion respectively, down 96.2 percent and 95.8 percent year on year. At end-2023, clients of account gold businesses held a net long position of 21.92 tons, down 44.7 percent year on year.

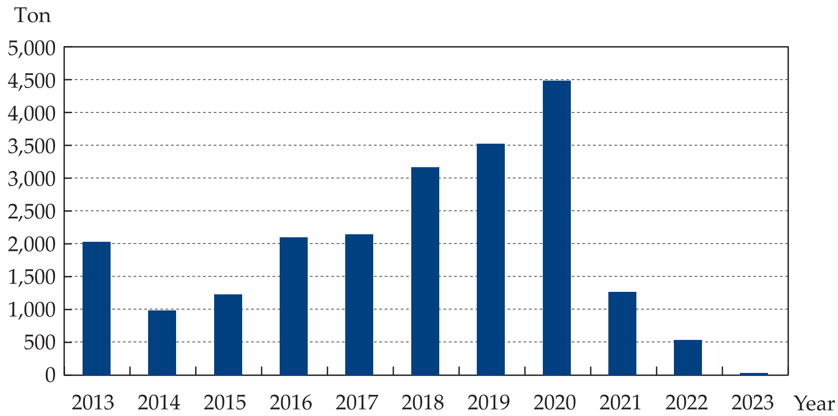

Figure 7.3 Account gold trading volume of commercial banks from 2013 to 2023

7.1.3.2 Physical gold sales of commercial banks increased year on year

In 2023, commercial banks sold 404.63 tons of physical gold, reaching RMB 190.909 billion in turnover, up 20.1 percent and 41.9 percent year on year respectively. Specifically, proprietary trading and agent trading posted 139.24 tons and 31.51 tons respectively, up 40.5 percent and 39.6 percent from the previous year. Gold accumulation, regular investment and other physical gold sales totaled 233.87 tons, up 8.6 percent year on year (see Figure 7.4).

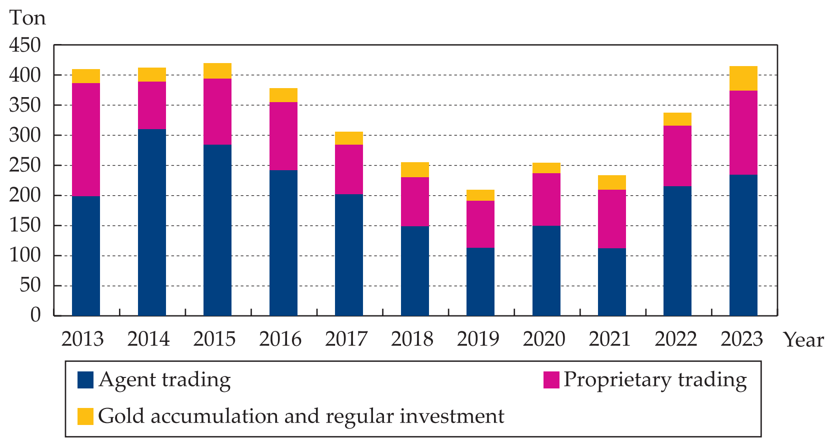

Figure 7.4 Sales of physical gold by commercial banks from 2013 to 2023

7.1.3.3 Assets managed under gold-based structured products and other gold asset management products increased year on year

In 2023, the notional principal amount of gold-based structured products and other gold asset management products sold by commercial banks totaled RMB 3,112.146 billion, and RMB 3,021.936 billion of such products were redeemed, up 4.0 percent and down 1.1 percent year on year respectively. At end-2023, the outstanding balance of gold-based structured products and other gold asset management products reported RMB 389.115 billion, up 11.9 percent from end-2022.

7.1.3.4 Gold leasing business experienced ups and downs

The gold leasing business consists of gold leasing of commercial banks to corporate clients and interbank gold lending (see Figure 7.5). In 2023, the turnover of the gold leasing business of commercial banks totaled 2,209.67 tons, up 3.5 percent year on year. Specifically, commercial banks leased 466.24 tons of gold to clients, down 10.3 percent year on year, and leased 1,743.43 tons of gold to interbank clients, up 7.9 percent year on year. At end-2023, the outstanding leasing balance of the gold business stood at 1,279.54 tons, a year-on-year decrease of 2.7 percent.

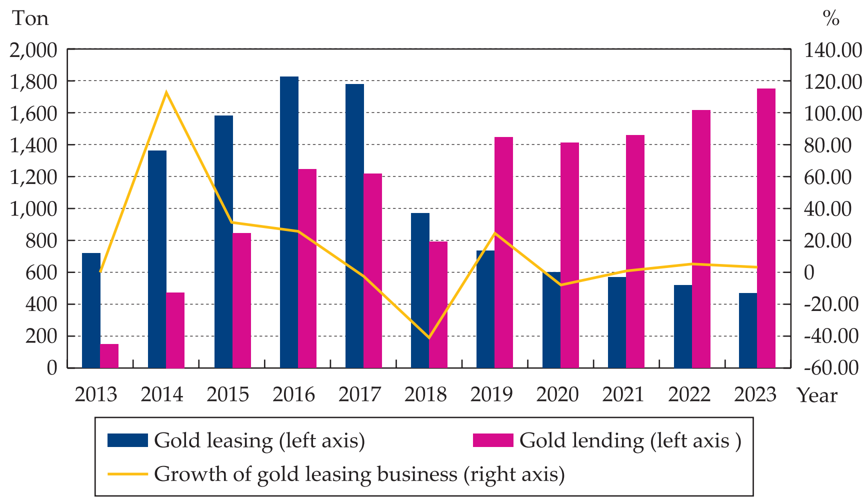

Figure 7.5 Gold leasing business of commercial banks from 2013 to 2023

7.1.3.5 Domestic gold derivatives trading generally registered a lower volume

In 2023, the trading volume of domestic OTC gold derivatives by commercial banks was 1,086.38 tons, down 35.4 percent year on year. In terms of product structure, gold forward trading, gold swaps trading, and gold options trading reached 244.44 tons, 755.50 tons, and 86.44 tons, representing decreases of 45.2 percent and 37.4 percent and an increase of 207.9 percent, respectively. In terms of currencies, the trading volume of RMB-denominated OTC gold derivatives and USD-denominated ones amounted to 223.87 tons and 862.51 tons, down 17.8 percent and 38.7 percent respectively.

7.2 Main features of the gold market

7.2.1 Domestic and international gold prices hit record highs

In 2023, both international and domestic gold prices rose sharply due to risk events such as the Israeli–Palestinian conflict and the Silicon Valley Bank crisis. London gold, or international spot gold, closed at USD 2,077.50 per ounce on December 27, and the dominant spot contract of Au 99.99 on the SGE closed at RMB 482.19 per gram on December 28, surpassing previous peaks set on August 6, 2020 (USD 2,063.10 per ounce) and August 7, 2020 (RMB 446.72 per gram) respectively, both hitting record highs.

7.2.2 Demand for gold investment increased in China

In 2023, rising gold prices highlighted the relative advantage of gold as an investment, spurring an increase in domestic demand for gold asset allocation and investment. Throughout the year, commercial banks sold a total of 170.75 tons of branded gold, up 40.4 percent year on year. Gold accumulation trading at commercial banks totaled 233.87 tons, up 8.6 percent year on year. At end-December, gold holdings in domestic ETFs reached 61.08 tons, up 19.7 percent from end-2022.

7.2.3 Global central banks increased gold reserves

In 2023, a total of 20 central banks worldwide increased their gold reserves. At end-2023, net purchases of gold reserves by central banks globally registered 394.10 tons[①], with the largest increases primarily occurring in emerging economies.

7.3 Market innovation, institutional development and infrastructure construction

7.3.1 Innovation of the gold market

7.3.1.1 RMB non-resident accounts (NRA) were incorporated into the international board settlement account system

In October 2023, the SGE incorporated RMB NRA accounts opened by overseas institutions in China into the international board settlement account system, becoming the first financial asset trading platform in China to support settlement through both free trade (FT) accounts and NRA accounts. This move has broadened channels for fund transfers, better leveraged the functions of FT accounts to provide integrated financial services for domestic and foreign currencies and the geographical universality of NRA accounts, strengthened the clearing and settlement service capabilities of the offshore market, and enhanced infrastructure internationalization.

7.3.1.2 A pilot program was launched to explore the use of e-CNY in cross-border settlement

An e-CNY wallet interface has been added to the FT account system of the international board, and December 2023 recorded the first-ever cross-border settlement for precious metals using e-CNY by international members of the SGE. This milestone marks the first cross-border application of e-CNY in the financial

① Source: World Gold Council (WGC).

factor market and expands its cross-border application scenarios.

7.3.2 Institutional and infrastructure development of the gold market

7.3.2.1 Trading mechanisms as well as clearing and settlement functions were improved

The SGE optimized market-making services by launching market-making programs for Au (T+D) and NYAuTN contracts and adjusting market makers on the interbank gold bilateral market. It adjusted the position opening rate for short-term trading of Au (T+D) and mAu (T+D) contracts and offered fee waivers for its members to support them and improve market liquidity. The SGE also optimized the core clearing system, participated in the PBOC's pilot program for centralized storage and management of large-amount funds, released the *Principles for Financial Market Infrastructures (PFMI) Disclosure Report for CCP Clearing Services (2023)*, and revised the Administrative *Measures for the Closed Operation System of Customer Margin*.

7.3.2.2 Development plans were clarified and risk control was strengthened

The SGE formulated and implemented the *Shanghai Gold Exchange Business Development Plan (2023—2025)* to drive various businesses into a new stage of high-quality development. It formulated the *Regulations on Risk Classification Management* and guidelines for controlling key risks while conducting key risk response drills. The SGE also made accelerated efforts to replace infrastructure and database systems with domestic products and achieved the ISO 27001 security certification, which bolstered system operational stability. Furthermore, the SGE completed the filing system for secondary system developers and continued to ensure the sound operation of the "two cities, three centers" system setup.

7.4 Opening-up of the gold market

7.4.1 The international board saw significant growth in gold trading volume, with the market structure further improved

In 2023, the SGE's international board recorded a gold turnover of RMB 2.31 trillion, up 43.54 percent, with a trading volume of 5,219.41 tons, up 26.65 percent. During the year, the international business of the SGE recruited eight new international members. At year-end, the SGE had 103 international members and 73 international customers, ranging from commercial banks, investment institutions, and securities companies to refining enterprises and trading companies. Fund clearing channels remained smooth throughout 2023, with the volume and risks of cross-regional and cross-border fund transfers kept at predictable and controllable levels. The total net fund clearing volume reached RMB 122.308 billion.

7.4.2 International cooperation continued to advance, with increased industrial chain connectivity between domestic and international markets

The SGE maintained close communication

with the London Bullion Market Association (LBMA) and actively advanced the joint development of international gold kilobar standards. Efforts to list Shanghai Gold in overseas markets were further promoted to enhance the international application of physical gold and pricing standards. The SGE also expanded opportunities for Shanghai Gold price licensing through extensive engagement with market institutions from Belt and Road partner countries and steadily advanced bilateral licensing cooperation with the Chicago Mercantile Exchange (CME). Additionally, the SGE further optimized the customs declaration, deposit and withdrawal processes for gold on the international board, promoting industrial chain connectivity between domestic and international markets. As of end-2023, the number of institutions involved in the "Golden Road" project increased to 20. Gold deposit via the project throughout the year amounted to 5.7 tons, an increase of 5.5 tons compared to 2022.

7.5 Outlook of the gold market

In 2024, the gold market will continue to improve its infrastructure and optimize management systems. Efforts will focus on expanding the breadth and depth of the market, enhancing market opening-up, further refining the market service system, and strengthening risk prevention and resolution. The aim is to build a new development paradigm within the gold market and drive its high-quality development to support the building of China into a financial powerhouse.

BOX 7 RMB NRA accounts were launched on the SGE's international board

To better meet market demand and further facilitate investment and trade, the SGE incorporated RMB NRA accounts into its international board settlement system in October 2023. This made the SGE the first financial asset trading platform in China to support settlement through both FT accounts and NRA accounts.

This new inclusive settlement system allows institutions to use either FT accounts or NRA accounts for transactions and settlements on the SGE international board, further increasing the convenience for overseas institutions to engage with China's gold market. By combining the geographical universality and ease of fund transfer offered by RMB NRA accounts with integrated financial services for domestic and foreign currencies provided by FT accounts, the dual-account settlement system expands channels for fund transfers, strengthens the clearing and settlement service capabilities of the offshore market, and promotes the internationalization of the gold market's financial infrastructure.

Since the launch of the service, the SGE has continuously optimized the system and improved *market services to promote the compatibility of the RMB NRA account and FT account systems while enhancing the infrastructure of the international board. As of end-2023, the SGE international board had established an offshore market clearing and settlement account system consisting of 200 FT accounts, 39 special accounts for overseas settlement and 2 RMB NRA accounts opened by international members and customers.*

Chapter 8 Insurance Market

In 2023, the insurance industry applied the new development philosophy fully, faithfully, and comprehensively, and unswervingly pursued a path of financial development with Chinese characteristics, while placing the nation's fundamental interests at the core of its mission. The industry also accelerated its digital transformation, responded proactively to disaster relief and mitigation needs, and supported the development of elderly care services. It served major deployments and tasks such as the Belt and Road Initiative(BRI), and cushioned against economic shocks while fostering social stability.

8.1 Performance of the insurance market

8.1.1 Original insurance premium income

In 2023, China's insurance industry realized an original insurance premium income of RMB 5,124.67 billion, up 9.13 percent on a comparable basis①. (see Figure 8.1). Property insurance and personal insurance accounted for 26.55 percent and 73.45 percent respectively. The original insurance premium income of property insurance companies and personal insurance companies registered RMB 1,586.78 billion and RMB 3,537.89 billion respectively, up 6.73 percent② and 10.25 percent③ year on year on a comparable basis (see Figure 8.2 and Figure 8.3). From 2019 to 2022, the original insurance premium income of insurance companies recorded RMB 4,264.48 billion (up 12.17 percent year on year), RMB 4,525.73 billion (up 6.13 percent year on year), RMB 4,490.02 billion (up 4.05 percent year on year), and RMB 4,695.72 billion (up 4.58 percent year on year). In particular, on a year-on-year basis, the original insurance premium income of property insurance companies increased by 10.72 percent, 4.36 percent, 1.92 percent and 8.70 percent respectively, and that of personal insurance companies rose by 12.82 percent, 6.90 percent, 5.01 percent and 2.78 percent respectively④.

① From June 2021 on, insurance companies undergoing risk resolution are not included in the industry summary data. https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1149677&itemId=954&generaltype=0, accessed on: April 18, 2024. The same below.

② From June 2021 on, insurance companies undergoing risk resolution are not included in the summary data of property insurance companies. https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1149687&itemId=954&generaltype=0, accessed on: April 18, 2024. The same below.

③ From June 2021 on, insurance companies undergoing risk resolution are not included in the summary data of personal insurance companies. https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1149689&itemId=954&generaltype=0, accessed on: April 18, 2024. The same below.

④ The growth rates from 2021 to 2022 are the year-on-year growth rates calculated on a comparable basis, the same below.

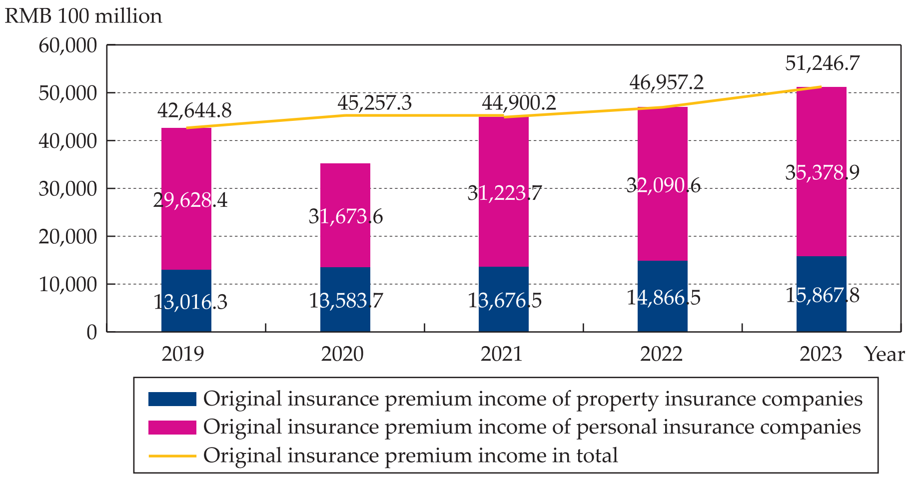

Figure 8.1 Original insurance premium income from 2019 to 2023

(Source: NFRA website)

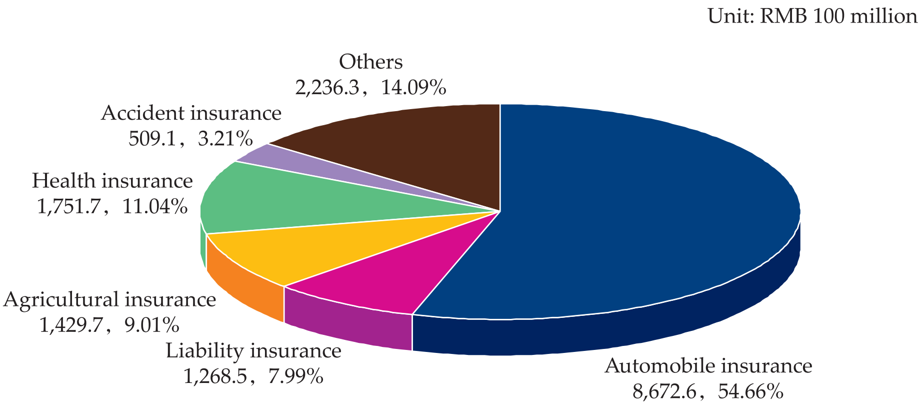

Figure 8.2 Original insurance premium income of property insurance companies in 2023

(Source: NFRA website)

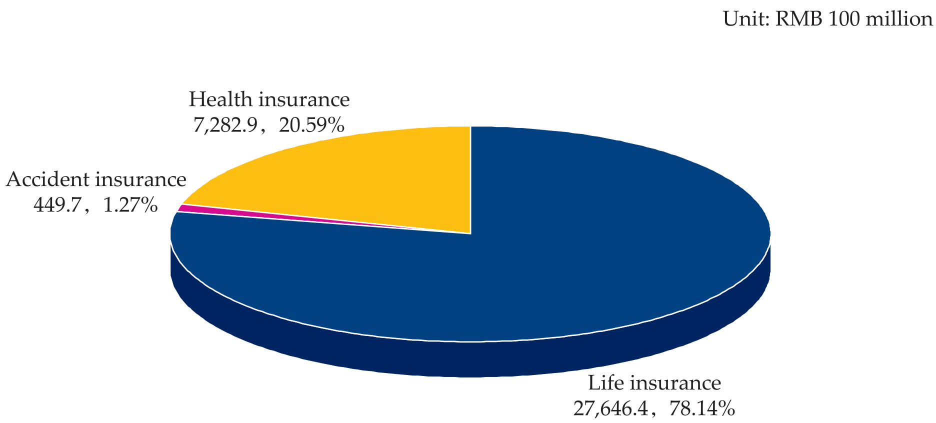

Figure 8.3 Original insurance premium income of personal insurance companies in 2023

(Source: NFRA website)

8.1.2 Claims payment of original insurance

In 2023, insurance companies paid RMB 1,888.30 billion in claims payment of original insurance, up 21.94 percent year on year on a comparable basis. In particular, the claims payment of property insurance and personal insurance accounted for 48.57 percent and 51.43 percent respectively. The claims payment by property insurance companies and personal insurance companies came in at RMB 1,069.40 billion and RMB 818.87 billion (see Figure 8.4). From 2019 to 2022, claims payment of the insurance industry recorded RMB 1,289.40 billion (up 4.85 percent year on year), RMB 1,390.71 billion (up 7.86 percent year on year), RMB 1,560.86 billion (up 14.12 percent year on year), and RMB 1,548.52 billion (down 0.79 percent year on year). In particular, on a year-on-year basis, claims payment of original insurance by property insurance companies increased by 12.76 percent, 8.27 percent, 13.55 percent, and 2.60 percent, and that by personal insurance companies rose by -3.88 percent, 7.33 percent, 14.87 percent and -5.23 percent respectively.

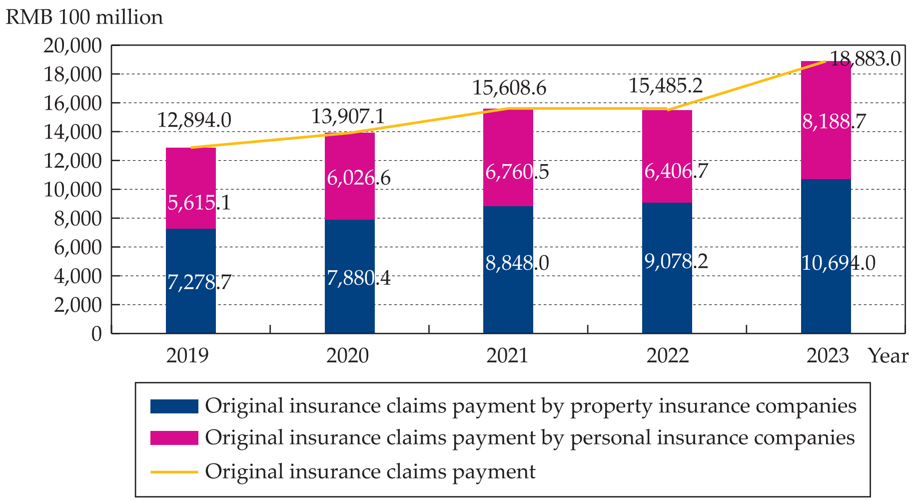

Figure 8.4 Structure of claims payment from 2019 to 2023

(Source: NFRA website)

8.1.3 Insurance assets

As of end-2023, the total assets of insurance companies amounted to RMB 29.96 trillion[①], an increase of 10.4 percent from the beginning of the year (see Figure 8.5). Total assets of property insurance companies, personal insurance companies, reinsurance companies,

① Source: https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1149677&itemId=954&generaltype=0, accessed on: April 18, 2024.

insurance asset management companies, and other institutions stood at RMB 2.8 trillion (up 3.3 percent from the beginning of the year), RMB 25.9 trillion (up 10.9 percent from the beginning of the year), RMB 747.1 billion (up 11.2 percent from the beginning of the year), RMB 105.2 billion (up 1.6 percent[①] from the beginning of the year), and RMB 0.4 trillion respectively (see Figure 8.6). From 2019 to 2022, the total assets of the insurance industry were RMB 20.6 trillion, RMB 23.3 trillion, RMB 24.9 trillion and RMB 27.1 trillion, with year-on-year growth rates of 12.18 percent, 13.29 percent, 11.50 percent and 9.1 percent respectively.

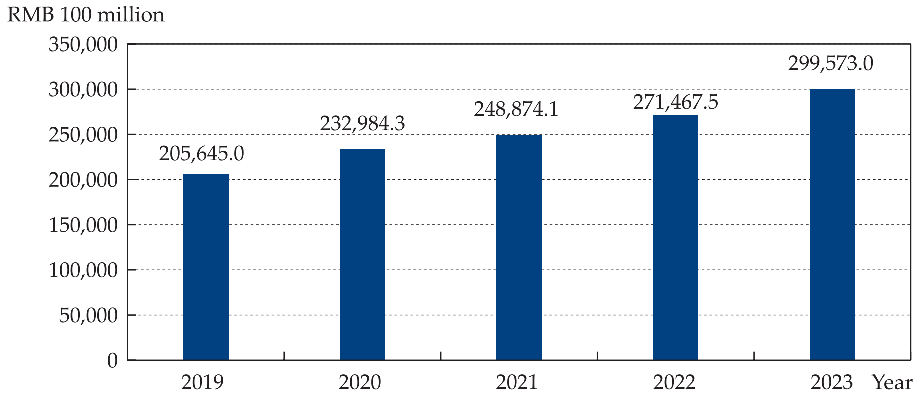

Figure 8.5 Total assets of the insurance industry from 2019 to 2023

(Source: NFRA website)

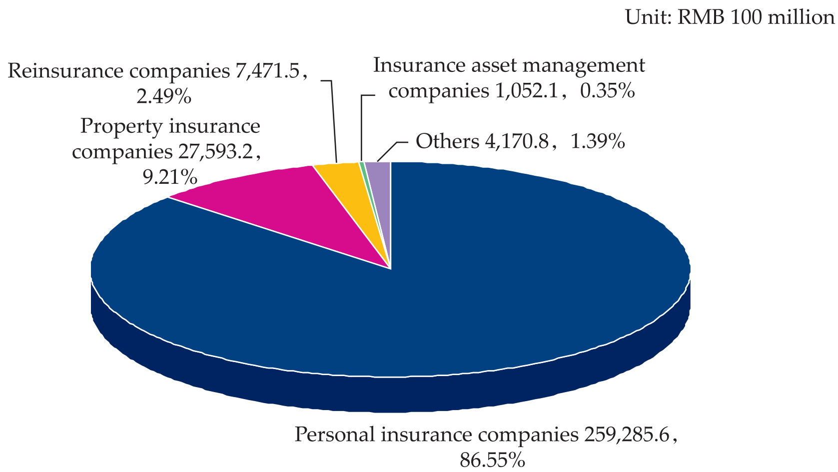

Figure 8.6 Structure of total assets of the insurance industry in 2023

(Source: NFRA website)

(Note: Due to rounding, proportions may not sum exactly to 100%)

① Source: https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1152858&itemId=915&generaltype=0, accessed on: April 18, 2024.

8.2 Main features of the insurance market

8.2.1 The insurance guarantee capacity was enhanced

In 2023, the amount insured by property insurance companies was RMB 12,100.13 trillion. Specifically, the amount insured registered RMB 864.68 trillion for automobile insurance, RMB 4,830.74 trillion for liability insurance, RMB 4.98 trillion for agricultural insurance and RMB 6,399.73 trillion for other types of insurance. The new insured amount of personal insurance companies posted RMB 1,302.69 trillion.

8.2.2 The coverage of insurance continued to expand

In 2023, the number of newly sold insurance policies was 75.35 billion, a year-on-year increase of 36.1 percent. Among them, property insurance companies sold 74.55 billion, including 630 million for automobile insurance, 30.49 billion for liability insurance, and 43.43 billion for other types of insurance. Personal insurance companies sold 800 million new policies throughout the year.

8.2.3 The operation of the insurance industry was sound

At end-2023, the insurance industry maintained sound operation and sufficient solvency. The net cash flow from operating activities of insurance companies was RMB 1.71 trillion, and liquidity remained at a high level throughout the year. In terms of solvency, at the end of Q4 2023, the average comprehensive solvency ratio and average core solvency ratio of the insurance industry stood at 197.1 percent and 128.2 percent respectively, both higher than the compliance standards of 100 percent and 50 percent. In particular, the comprehensive solvency ratios of property insurance companies, personal insurance companies, and reinsurance companies were 238.2 percent, 186.7 percent and 285.3 percent respectively and their core solvency ratios were 206.2 percent, 110.5 percent and 245.6 percent respectively. Regarding risk management, at end-Q3 2023, 55 of those insurance companies were rated A in the Integrated Risk Rating (IRR), 106 rated B, 14 rated C, and 12 rated D[①]. In addition, the NFRA conducted solvency risk management assessments for 36 insurance companies, including 2 group companies, 15 property insurance companies, 16 personal insurance companies and 3 reinsurance companies. The average evaluation scores were 80.86, 75.45, 78.10, and 78.81, respectively. In terms of score distribution, 13 companies (36.10 percent of the total) achieved scores above 80, while 21 companies (58.30 percent) scored between 70 and 80. Only two companies (5.60 percent[②]) received scores below 70.

① Source: https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1123513&itemId=954&generaltype=0, accessed on: March 08, 2024.

② Source: https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1148472&itemId=915&generaltype=0, accessed on: March 08, 2024.

8.2.4 The investment of insurance funds was diversified

As of end-2023, outstanding insurance funds stood at RMB 27.7 trillion. Specifically, investment in bank deposits totaled RMB 2.7 trillion and accounted for 9.8 percent of the total; investment in bonds amounted to RMB 12.6 trillion and made up a share of 45.5 percent; investment in stocks and securities investment funds amounted to RMB 3.3 trillion and accounted for 11.9 percent[①]; and other investments registered RMB 9.1 trillion and represented 32.8 percent of the total.

8.3 Reform and innovation in the insurance market

8.3.1 Efforts were made to promote the steady development of commercial health and old-age insurance

The insurance industry, while remaining committed to the political and people-oriented nature of financial work, has consistently promoted the sustainable development of commercial health and old-age insurance to meet the diverse pension security needs of the population. First, the pilot program of converting life insurance to long-term care insurance was officially launched. In March 2023, the *Notice on Carrying out the Pilot Program of Converting Life Insurance to Long-term Care Insurance* (Yinbaojianbanfa No.33 [2023]) was released and pilot programs were launched starting from May 1, 2023. The *Notice* outlines the specific requirements for converting life insurance to long-term care insurance, including the methods for liability conversion, the types of applicable products, the certification of care status, and detailed operational processes. Personal insurance companies are tasked with designing pilot plans, filing relevant products, establishing conversion business operations and internal management systems, and enhancing staff training and compliance assessments. Additionally, insurers must focus on data accumulation and analysis, proper information disclosure and progress reporting[②]. Second, the scope of commercial health insurance products eligible for preferential individual income tax policies was expanded. In July 2023, the *Notice on Matters Concerning the Commercial Health Insurance Products Eligible for Preferential Individual Income Tax Policies* (Jingui No.2 [2023]) was released. The *Notice* expanded the scope of commercial health insurance products subject to individual income tax preferential policies to main types of commercial health insurance such as medical insurance, long-term care insurance and illness insurance. In addition, in view of insufficient insurance coverage for people with pre-existing conditions, insurance companies are required to include them in the scope of medical insurance. Insurers are also encouraged to develop long-term care and illness insurance products that offer higher reimbursement limits

① Source: https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1152868&itemId=954, accessed on: March 8, 2024.

② Source: CBIRC issued the *Notice on Carrying out the Pilot Program of Converting Life Insurance to Long-term Care Insurance*, https://www. cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1102329&itemId=915&generaltype=0, accessed on: March 8, 2024.

and broader coverage[①]. Third, transition work between the pilot of personal tax-deferred commercial endowment insurance and personal pension was conducted. In September 2023, the *Notice on Matters Concerning the Transition between the Pilot of Personal Tax-deferred Commercial Endowment Insurance and Personal Pensions* (Jingui No.4 [2023]) was issued. This *Notice* clarifies the work requirements, business adjustments, product management, and policy transfers, as well as business operations, announcements, information submission and other stipulations in the transition process[②]. Fourth, the exclusive commercial old-age insurance business was launched. In October 2023, the *Notice on Matters Related to Promoting the Development of Exclusive Commercial Old-age Insurance* (Jingui No.7 [2023]) was published, signaling the shift of exclusive commercial old-age insurance from pilot status to a regularized business model. This *Notice* sets the requirements[③] for insurance companies offering exclusive old-age products, including operational conditions, primary responsibilities, sales channels, and sales management. As of end-2023, 740,000 exclusive commercial old-age insurance policies had been sold, with total pension reserves surpassing RMB 10.6 billion[④].

8.3.2 The high-quality development of property insurance was advanced

The insurance industry adopted a goal-oriented and problem-oriented approach to make significant efforts to promote the high-quality development of the property insurance sector, actively aligning with China's modernization goals. First, efforts were made to advance supply-side structural reform. The industry explored insurance risk securitization to unlock reinsurance opportunities, aiming to steadily increase market participation and expand the supply of reinsurance. This approach has contributed to the high-quality development of the reinsurance market. Moreover, efforts to deepen the comprehensive reform of automobile insurance were strengthened. The diversity of automobile insurance products was expanded, and work on insurance rate tracing was conducted to optimize market-driven pricing mechanisms. These initiatives enhanced the outcomes of the comprehensive automobile insurance reform. Second, efforts were made to serve major national strategies. The NFRA guided the Shanghai Insurance Exchange (SHIE) to steadily advance the high-level institutional opening-up of the reinsurance business,

① Source: NFRA issued the *Notice on Matters Concerning the Commercial Health Insurance Products Eligible for Preferential Individual Income Tax Policies*, https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1116062&itemId=917&generaltype=0, accessed on: March 8, 2024.

② Source: NFRA issued the *Notice on Matters Concerning the Transition between the Pilot of Personal Tax-deferred Commercial Endowment Insurance and Personal Pensions*, https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1125976&itemId=916&generaltype=0, accessed on: March 8, 2024.

③ Source: NFRA issued the *Notice on Matters Related to Promoting the Development of Exclusive Commercial Old-age Insurance*, https://www.cbirc.gov.cn/cn/ view/pages/ItemDetail.html?docId=1133217&itemId=916&generaltype=0, accessed on: March 8, 2024.

④ Source: https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1149455&itemId=919&generaltype=0, accessed on: April 19, 2024.

supporting Shanghai's pace in building international reinsurance center. Initiatives included organizing the Shanghai International Reinsurance Conference to raise China's profile in the global reinsurance market. Furthermore, guidance was provided to the China Belt and Road Reinsurance Pool (CBRRP) to innovate its products and services, enhancing special risk protection for Chinese interests abroad. Third, the capacity for insurance protection was strengthened. The NFRA guided China Export & Credit Insurance Corporation to implement national special tasks and better play the role of policy insurance. Fourth, efforts were made to improve risk reduction management. In January 2023, the *Opinions on Actively Carrying Out Risk Reduction Services in the Property Insurance Industry* (Yinbaojianbanfa No.7 [2023]) was released. The document requires property insurance companies to expand their service offerings and actively assist insured businesses in conducting risk assessments and other risk reduction activities. It also calls for broadening the scope of services, including providing risk reduction services in various types of property insurance, such as liability insurance, automobile insurance, and agricultural insurance. Companies are encouraged to diversify the ways in which risk reduction services are offered, improving their accessibility and convenience. Additionally, companies are advised to establish service teams or outsource to professional third-party agencies to enhance the depth, practicality, and detail of the services. These services should also extend to the upstream and downstream industries of the insured businesses, offering customers a one-stop service solution. Fifth, the quality and efficiency of agricultural insurance services were improved. In April 2023, the *Notice on the Comprehensive Promotion of Key Tasks for Rural Vitalization in 2023 in the Banking and Insurance Sectors* (Yinbaojianbanfa No.35 [2023]) was issued. The *Notice* called on insurance companies to actively expand agricultural insurance, both by increasing coverage and improving product offerings. This included extending the scope of coverage for full cost insurance and planting income insurance for the three major staple grains, as well as offering insurance for locally advantageous and agricultural products tailored to regional conditions. The *Notice* also emphasized improvements in the underwriting and claims processes for agricultural insurance, aiming to ensure that insurance is available for all who need it ("insure as much as possible"), that all eligible claims are paid ("pay all valid claims"), and that claims are settled quickly and promptly ("fast and timely claims")[①].

8.3.3 The healthy development of insurance fund utilization was promoted

Policies governing insurance investment have been continuously refined, significantly enhancing the insurance sector's ability to serve the real economy. First, measures were

① Source: CBIRC issued the *Notice on the Comprehensive Promotion of Key Tasks for Rural Vitalization in 2023 in the Banking and Insurance Sectors*, https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1104116&itemId=917&generaltype=0, accessed on: March 8, 2024.

introduced to strengthen supervision on insurance companies' solvency capacity and ensure their stable operation. In September 2023, the NFRA issued the *Notice on Optimizing Regulatory Standards for the Solvency of Insurance Companies* (Jingui No.5 [2023]). The *Notice* put forward measures such as lowering risk factors and encouraging insurance companies to allocate more funds toward long-term investment. This adjustment provided greater flexibility for incremental insurance funds to flow into the market[①]. Second, the *Notice* emphasized the importance of improving the alignment between assets and liabilities and reinforced long-term performance assessments of state-owned commercial insurance companies. In October 2023, the MOF issued the *Notice on Guiding Long-term and Steady Investment of Insurance Funds and Strengthening the Long-term Assessment of State-Owned Commercial Insurance Companies* (Caijin No.89 [2023]). The *Notice* adjusted the performance evaluation metric for the return on equity (ROE), transitioning it from an annual indicator to a combined evaluation approach of a three-year cycle plus an annual indicator. This change aims to steer state-owned commercial insurers toward more stable, long-term operations while giving better play to the role of MLT funds as a market stabilizer and a booster of economic development[②].

8.3.4 Efforts were strengthened to protect consumer rights and interests

The insurance industry has fully embraced a people-centered development philosophy, working actively to safeguard the rights and interests of financial consumers. This approach aligns with the broader vision of finance for the people—ensuring that financial services benefit and ease the lives of consumers. First, efforts were made to effectively protect consumers' right to know. The *Rules for Information Disclosure of Personal Insurance Products with a Term of More than One Year* (Yinbaojiangui No.24 [2022]) was introduced to set comprehensive guidelines for the disclosure of product information by insurance companies. The *Rules* mandate insurers to enhance information disclosure and continuously improve the transparency of insurance products, thus better protecting the legitimate rights and interests of consumers. Notably, the *Rules* require insurers to disclose dividend realization rates for the first time and eliminate the previously used tiered demonstration interest rate system. Furthermore, the demonstration interest rate level has been reduced to further increase the transparency of dividend-based insurance. Starting from June 30, 2023, all types of personal insurance products were required

① Source: *Notice on Optimizing Regulatory Standards for the Solvency of Insurance Companies*, https://www.cbirc.gov.cn/cn/view/pages/governmentDetail.html?docId=1126915&itemId=&generaltype=1, accessed on: March 8, 2024.

② Source: *Notice on Guiding Long-term and Steady Investment of Insurance Funds and Strengthening the Long-term Assessment of State-Owned Commercial Insurance Companies*, https://www.gov.cn/zhengce/zhengceku/202310/content_6912720.htm, accessed on: March 8, 2024.

to comply with these disclosure guidelines①. Second, insurance companies were guided to strengthen customer trust through more standard sales practices. In September 2023, the *Measures for the Management of Insurance Sales Practices* (Order No.2 [2023] of the NFRA) was issued, clarifying the subjects and methods of insurance product sales, as well as the obligations that insurance institutions and consumers must perform during the sales process. This comprehensively regulates insurance sales practices before, during and after sales, thus realizing source governance and better safeguarding the legitimate rights and interests of insurance consumers②. Third, measures were taken to enhance the awareness of active service and the convenience of financial services in the financial sector. Starting from October 2023, initiatives were launched to encourage insurance companies to carry out special work to clean up"sleeping" personal insurance policies(long-term unclaimed insurance policies). This clean-up effort also served as an opportunity to strengthen customer identity information management, establish and improve a regular clean-up mechanism of "sleeping policies", enhance the industry's level of active service, and continuously boost consumer satisfaction and sense of gain③.

8.4 Opening-up of the insurance market

8.4.1 International regulatory cooperation and exchanges were further expanded and deepened

The insurance industry resolutely followed the requirements of the CPC Central Committee regarding the opening-up of the financial sector. It made continuous efforts to promote high-standard opening-up, steadily advancing the institutional opening-up of both the banking and insurance industries. First, in terms of supervision, in July 2023, the 5th Workshop on Asian Solvency Regulation & Cooperation (WASRC) was held online, bringing together 61 regulatory officials from insurance supervisory agencies across 13 countries and regions in Asia and Belt and Road Partner countries. The WASRC highlighted China's solvency supervision system, showcasing the development of exchanges, insurance products, and financial technology within China's insurance industry market. Participants engaged in discussions on ways to further expand institutional opening-up, particularly in areas of regulatory frameworks, governance, management practices, and standards. This facilitated deeper mutual trust and consensus among the regulators④. As of end-September 2023, China had signed 126 regulatory

① Source: *Rules by China Banking and Insurance Regulatory Commission for Information Disclosure of Personal Insurance Products with a Term of More than One Year*, https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1088640&itemId=928&-generaltype=0, accessed on: March 8, 2024.

② Source: NFRA Answers Press Questions on the *Measures for the Management of Insurance Sales Practices*, https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1129959&itemId=915&generaltype=0, accessed on: March 8, 2024.

③ Source: NFRA calls for special work to clean up "dominant" personal insurance policies, https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1129730&itemId=915&generaltype=0, accessed on: March 8, 2024.

④ Source: The NFRA held the 5th Workshop on Asian Solvency Regulation & Cooperation online, https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1119416&itemId=915&generaltype=0, accessed on: March 8, 2024.

cooperation agreements with financial regulators from 87 countries and regions[①]. Second, in terms of market, as of end-2023, overseas insurance institutions had established 67 business institutions and 70 representative offices in China. The total assets held by foreign insurance companies in the domestic market reached RMB 2.4 trillion, with a 10 percent market share[②].

8.4.2 Support was extended to promote the high-quality development of the BRI

2023 marked the 10th anniversary of the proposal of the BRI. Over the past ten years, China's insurance sector has continuously optimized its overseas layout, enriched financial products, and strengthened multi-party cooperation, as part of the effort to provide financing support and insurance protection for BRI projects. First, the overseas layout was continuously optimized. As of end-June 2023, six Chinese insurance institutions had established fifteen overseas branches across eight countries. Notably, the CBRRP had underwritten a total of 74 BRI projects, safeguarding a total of RMB 57 billion in overseas assets. Key projects covered include COSCO Shipping Ports, China Merchants Ports, Sinopec's Amur project in Russia, and the Karot Hydropower Project, the first hydropower tie-up developed by China Three Gorges under the China-Pakistan Economic Corridor (CPEC). Second, financial products were further diversified. China Export & Credit Insurance underwrote 10 overseas warehouse projects through overseas investment insurance products, with the maximum insurance amount exceeding USD 31 million. Life insurance companies under China Life Insurance Group also created specialized insurance products to protect overseas personnel involved in BRI projects[③]. Third, cross-border regulatory cooperation was further strengthened. By the end of September 2023, China had signed memorandums of understanding or cooperation agreements with the financial regulatory authorities of 55 Belt and Road partner countries, marking continuous expansion of regulatory collaboration, particularly in information sharing.

8.4.3 Support was strengthened for Shanghai's transformation into an international reinsurance hub

To facilitate the transformation of China's reinsurance market from "one-way opening-up" to "two-way opening-up" and build central nodes in the domestic reinsurance cycle and strategic links between China's domestic and international dual cycles, on June 8, 2023, the Shanghai Office of the CBIRC and the Shanghai Municipal Financial Regulatory Bureau issued the *Detailed Implementation Rules on Advancing the Development of Shanghai into an International Reinsurance Center*. These *Rules* specify

① Source: Banking and insurance industry data information press conference in Q3, https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=113274 0&itemId=920&generaltype=0, accessed on: March 8, 2024.

② Source: https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1149455&itemId=919&generaltype=0, accessed on: April 19, 2024.

③ Source: The banking and insurance industries support the solid development of BRI projects, https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1132178&itemId=915&generaltype=0, accessed on: March 8, 2024.

requirements for the mechanism of building Shanghai into an international reinsurance center, improving the reinsurance market infrastructure system and institutional system, and deepening reinsurance product supply and innovation capabilities[①]. Guided by the NFRA and the Shanghai Municipal People's Government, the SHIE has played a pivotal role in supporting this vision. By leveraging the Shanghai International Reinsurance Exchange, the SHIE has actively contributed to the development of a transparent, convenient, and efficient international reinsurance market. This initiative aims to drive high-standard institutional opening-up and foster the high-quality development of China's reinsurance market, supporting Shanghai's efforts to build itself into a leading global reinsurance center.

8.5 Outlook of the insurance market

In 2024, the insurance industry will fully implement the guidelines of the Central Financial Work Conference and the Central Economic Work Conference, unswervingly promoting high-quality financial development and contributing to building China into a financial powerhouse. First, the industry will focus on delivering precise and efficient services to support economic and social progress. This will involve making significant efforts in the areas of technology finance, green finance, inclusive finance, old-age finance, and digital finance. By doing so, the industry aims to better serve the development of new quality productive forces and the building of a modern industrial system. Efforts will also be made to stimulate effective demand and further enhance inclusive financial services, ultimately improving consumers' sense of gain. Second, the industry will steadfastly advance reform, steadily expanding institutional opening-up while driving high-quality development within the insurance sector.

BOX 8 Shanghai International Reinsurance Exchange was better leveraged to facilitate the building of Shanghai into an international reinsurance center

1. Efforts to build Shanghai into an international reinsurance center entered a new era of development

Shanghai International Reinsurance Exchange is a centralized inter-company market that consolidates trading elements and facilitates standardized information exchange for reinsurance trading activities. In June 2023, Li Yunze, Minister of the NFRA, and Gong Zheng, Mayor of Shanghai, co-chaired the

① Source: *Detailed Implementation Rules on Advancing the Development of Shanghai into an International Reinsurance Center*, https://www.cbirc.gov.cn/branch/shanghai/view/pages/common/ItemDetail.html?docId=1112240&itemId=1021&generaltype=0, accessed on: March 8, 2024.

release of the Detailed Implementation Rules on Advancing the Development of Shanghai into an International Reinsurance Center at the 14th Lujiazui Forum, marking the official debut of the Shanghai International Reinsurance Exchange. In December 2023, the State Council issued the General Plan for Advancing the Institutional Opening-up of China (Shanghai) Pilot Free Trade Zone in Alignment with High-standard International Economic and Trade Rules, emphasizing the establishment of the Shanghai International Reinsurance Exchange in the Lin-gang Special Area. Chen Jining, member of the Political Bureau of the CPC Central Committee and Secretary of the CPC Shanghai Municipal Committee, and Li Yunze, Minister of the NFRA, have consistently provided important instructions on this initiative. The development of the Shanghai International Reinsurance Exchange has become an important carrier and driver for the central-local government cooperation in implementing the strategic tasks of advancing China's financial strength and supporting Shanghai's goal of becoming a global financial and reinsurance powerhouse.

2. The functions and supporting regulations of the Shanghai International Reinsurance Exchange were further improved

Developed by the SHIE, the Shanghai International Reinsurance Exchange, offers a comprehensive suite of functions, including counterparty credit inquiries, business information publication, standardized contract signing, standardized bill generation, inter-institutional account settlement, fund settlement, information disclosure, performance management, convenient cross-border payment and receipt, and centralized electronic document preservation. At the same time, the NFRA has provided differentiated regulatory support, guiding and authorizing the SHIE to formulate and release key rules for international inward reinsurance registration, trading, and statistical reporting. Additionally, operational guidelines for the reinsurance counterparty default risk characteristic coefficient in line with Solvency II have been issued, along with supporting rules for business and system operations.

3. Institutional cluster effect of the Shanghai International Reinsurance Exchange began to take shape

The Lin-gang Special Area offers centralized office spaces for the Shanghai International Reinsurance Exchange, as well as value-added tax and income tax rebates, aimed at minimizing the tax gap with international standards. Both domestic and international market participants have shown strong interest, with nearly 200 visits from Chinese and foreign institutions gathering in Lin-gang for research and exploration. By the end of 2023, fifteen reinsurance operation centers of insurance companies and three intermediary reinsurance branches had settled in the Lin-gang Special Area with the approval of corresponding regulators.

Chapter 9 Derivatives Market

In 2023, China's derivatives market experienced growth in both trading volume and turnover. With steady innovation in products and trading mechanisms and continuous improvements to the market operation mechanism, it gained greater clout internationally and further highlighted its role in supporting the real economy and assisting the financial sector in risk prevention.

9.1 Commodity futures and options market

9.1.1 Performance of the commodity futures and options market

In 2023, the trading of China's commodity futures and options market increased year on year, with a cumulative trading volume of 8.333 billion lots and a cumulative trading turnover of RMB 435.34 trillion, up 25.94 percent and 8.32 percent year on year respectively. China's trading volume of commodity derivatives accounted for 71.23 percent of the world's total.

As for exchanges, the SHFE, including the Shanghai International Energy Exchange (INE), realized a cumulative trading volume of 2.227 billion lots and a cumulative trading turnover of RMB 187.21 trillion, up 14.59 percent and 3.26 percent year on year respectively, accounting for 26.73 percent and 43.00 percent of the total trading volume and turnover in China's commodity futures and options market respectively. Zhengzhou Commodity Exchange (ZCE) realized a cumulative trading volume of 3.533 billion lots and a cumulative trading turnover of RMB 128.41 trillion, up 47.35 percent and 32.58 percent year on year respectively, taking up 42.40 percent and 29.50 percent of the market total respectively. Dalian Commodity Exchange (DCE) realized a trading volume of 2.508 billion lots and a turnover of RMB 113.62 trillion, up 10.25 percent and down 8.17 percent year on year respectively, accounting for 30.10 percent and 26.10 percent of the market total respectively. Guangzhou Futures Exchange (GFEX) realized a cumulative trading volume of 65 million lots and a cumulative trading turnover of RMB 6.09 trillion, up 33,329.62 percent and 38,360.14 percent respectively, accounting for 0.78 percent and 1.40 percent of the market total respectively (see Figure 9.1 and Figure 9.2).

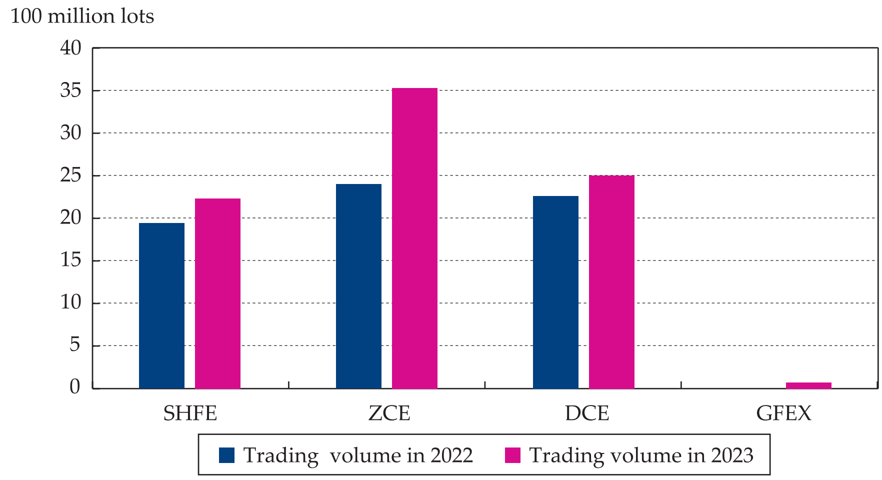

Figure 9.1 Cumulative trading volume of the SHFE, ZCE, DCE and GFEX from 2022 to 2023

[Source: China Futures Association (CFA)]

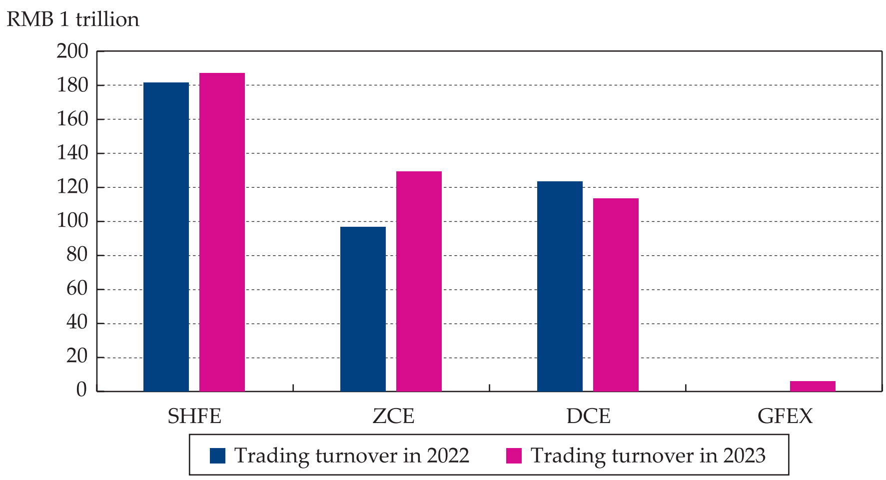

Figure 9.2 Cumulative trading turnover of the SHFE, ZCE, DCE and GFEX from 2022 to 2023

(Source: CFA)

In 2023, China's commodity futures market registered a cumulative trading volume of 7.263 billion lots and a turnover of RMB 434.67 trillion, up 16.60 percent and 8.26 percent year on year respectively. Specifically, agricultural products saw a cumulative trading volume of 1.961 billion lots and a turnover of RMB 114.54 trillion, up 25.54 percent and 12.00 percent year on year respectively; metal reported a cumulative trading volume of 1.687 billion lots and a turnover of RMB 148.88 trillion, up 4.65 percent and 6.36 percent year on year respectively; energy and chemicals realized a cumulative trading volume of 3.589 billion lots and a turnover of RMB 170.08 trillion, up 17.48 percent and 6.79 percent year on year respectively. Service-based futures saw a cumulative trading volume of 26 million lots and a turnover of RMB 1.17 trillion (see Figure 9.3).

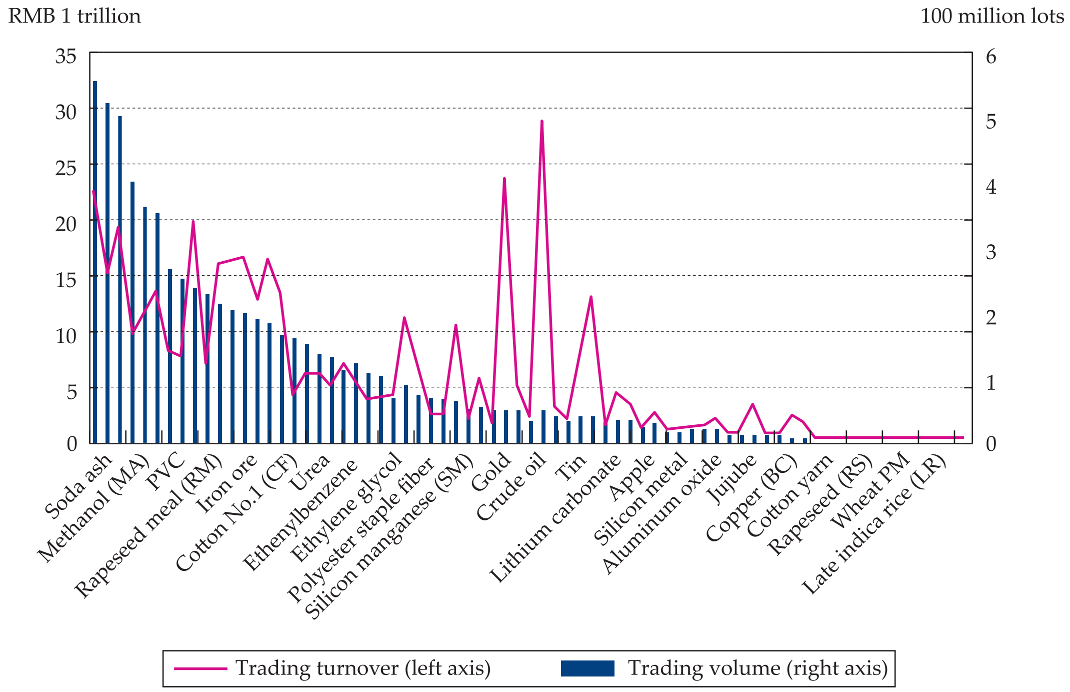

Figure 9.3 Cumulative trading volume and turnover of various commodity futures in China in 2023

(Source: CFA)

In 2023, China's commodity options market continued to grow, with a cumulative trading volume of 1.070 billion lots and a turnover of RMB 0.67 trillion, up 176.49 percent and 81.08 percent year on year respectively. As of end-2023, a total of 40 varieties of commodity options were listed on the market, an increase of 12 from end-2022 (see Figure 9.4).

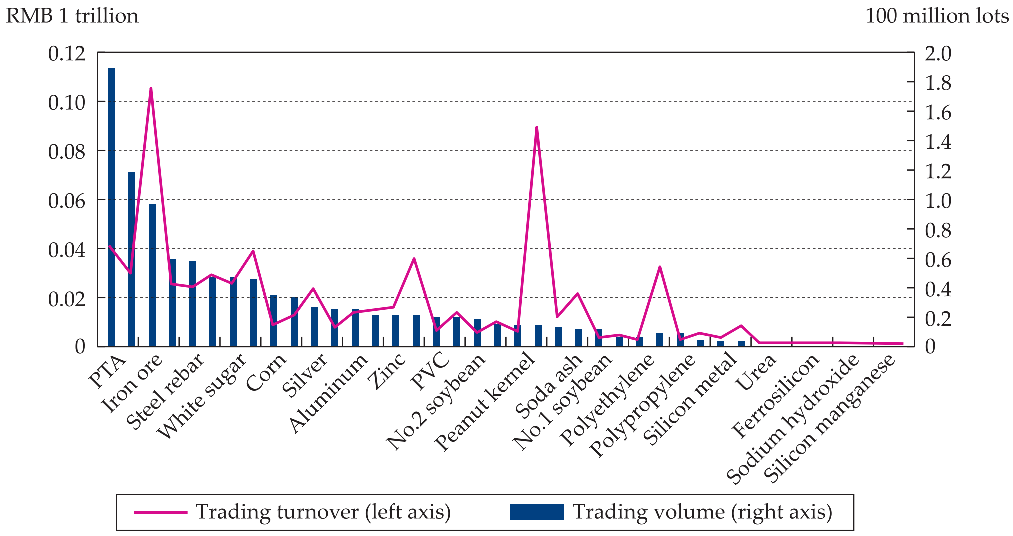

Figure 9.4 Cumulative trading volume and turnover of various commodity options in China in 2023

(Source: CFA)

In 2023, China ranked first globally in terms of the trading volume of exchange-traded commodity derivatives, accounting for 71.23 percent of the world's total. The next largest markets were the US, the UK, Russia and India (see Table 9.1). China has been the world's largest exchange-traded commodity derivatives market since 2009.

Table 9.1 Trading statistics of the world's top five exchange-traded commodity derivatives markets in 2023

2023 ranking	2022 ranking	Country	Volume / 100 million lots	YOY growth / %	Market share / %
1	1	China	83.33	25.94	71.23
2	2	The US	14.17	9.45	12.11
3	3	The UK	7.95	21.91	6.80
4	5	Russia	4.65	188.74	3.98
5	4	India	4.49	100.02	3.84

Source: Futures Industry Association (FIA).

9.1.2 Main features of the commodity futures and options market

9.1.2.1 Both the trading volume and turnover of commodity futures saw increases, with silicon metal futures experiencing the largest growth

In 2023, China's commodity futures market registered a cumulative trading volume of 7.263 billion lots and a turnover of RMB 434.67 trillion, up 16.60 percent and 8.26 percent year on year respectively. Specifically, silicon metal futures saw the largest growth, with a cumulative trading volume of 21.5766 million lots and a cumulative trading turnover of RMB 1.55 trillion, up 12,032.86 percent and 9,741.96 percent year on year respectively.

9.1.2.2 The commodity options market saw a significant increase in trading volume, with a high concentration of trading activity

In 2023, China's commodity options market continued to grow, with a cumulative trading volume of 1.070 billion lots and a turnover of RMB 0.67 trillion, up 176.49 percent and 81.08 percent year on year respectively. In 2023, the top three varieties of commodity options in terms of trading volume in China were PTA, Methanol, and Iron Ore options, with a trading volume of 188 million lots, 119 million lots, and 97 million lots respectively, and the cumulative trading volume of the three options accounted for 37.81 percent of the total. The top three varieties in terms of trading turnover were Iron Ore, Crude Oil, and PTA options, with a trading turnover of RMB 105.692 billion, RMB 89.861 billion, and RMB 40.599 billion respectively, and the cumulative trading turnover of the three options accounted for 35.18 percent of the total.

9.1.3 Innovation and institutional building of the commodity futures and options market

9.1.3.1 The first service-based futures contract was launched

On August 18, 2023, the first futures contract based on services in China's futures market, the

Containerized Freight Index (Europe Service) futures, was listed for trading. The introduction of this product is designed to help companies in the container shipping industry and foreign trade enterprises manage risks related to shipping price fluctuations and industry cycles, enhance their risk management capabilities and international competitiveness, strengthen the connection between the financial and shipping markets, and elevate the level of shipping financial services.

In 2023, the Containerized Freight Index (Europe Service) futures had performed soundly since its launch. As of end-2023, the futures contract registered a cumulative trading volume of 25.5765 million lots and a cumulative trading turnover of RMB 1.17 trillion, with a position of 108,900 lots at year-end.

9.1.3.2 Steady progress was made in product supply

In 2023, the SHFE launched Aluminum Oxide futures, Synthetic Rubber futures and options, and Containerized Freight Index (Europe Service) futures, while making steady progress in the development of a wide range of futures and options products. Meanwhile, the SHFE continued to improve its OTC Platform, which now supports the trading of standard warrants and bonded standard warrants for 16 products as well as the trading of extended warrants for natural rubber. The SHFE also launched the Zhejiang Mercantile Exchange (ZME), Ouyeel, Shandong International Commodity Exchange (CSICE), bonded warrant transfer, and EFP (exchange of futures for physicals) quotation sections, as well as the client for futures-physicals integrated trading.

9.1.3.3 The legal system was further improved

In May 2023, the newly revised *Measures for the Administration of Futures Exchanges* came into force. To align with the latest requirements of the *Futures and Derivatives Law of the People's Republic of China*, the revised *Measures* introduced new provisions regarding the responsibilities of futures exchanges, risk monitoring and response, and market information release. The revisions also detailed the institutional arrangements for futures product listing, trading, settlement and delivery, strengthening the risk management responsibilities of the futures market and supporting its continued healthy development.

In July 2023, the *Interim Provisions on Position Management for the Futures Market* came into effect. This regulation, which includes seven chapters and thirty articles, addresses institutional arrangements for position limits, hedging, etc.

9.1.3.4 Business rules were continuously optimized

In 2023, the SHFE launched a range of new business rules, including call auction for the day trading session, an optimized exit system for individual investors in delivery months, the disposal of negotiable securities used as margin in case of default, the adjustment of the delivery period from three consecutive business days immediately following the last trading day of the contract to two consecutive business days, conversion of speculative positions to hedging positions, and differentiated margin rates.

9.1.4 Opening-up of the commodity futures and options market

9.1.4.1 Steady progress was made in market internationalization

As of end-2023, the SHFE opened five futures products, including Crude Oil, Low Sulfur Fuel Oil (LSFO), TSR 20, Copper, and Containerized Freight Index (Europe Service) futures, as well as Crude Oil options directly to overseas investors. At the same time, the number of QFIIs and RMB QFIIs (RQFIIs) opening accounts, along with their trading volumes, continued to grow steadily. The SHFE also approved Citibank (China) and DBS Bank (China) as designated custodian banks to offer futures margin depository services for their respective QFII and RQFII clients. In 2023, the SHFE maintained ongoing communication with overseas regulatory agencies, exchanges, and market institutions while actively exploring settlement price licensing cooperation with overseas exchanges, further expanding the international accessibility of its futures products.

9.1.4.2 Global promotion efforts were expanded

In 2023, the SHFE organized product promotion events in regions and countries including Hong Kong SAR of China, Singapore, Japan and South Korea, actively promoting its international futures products. Moreover, the SHFE continued to innovate its promotional strategies by hosting online product promotion sessions for international clients.

9.1.5 Outlook of the commodity futures and options market

The commodity futures and options market will continue to expand its product offerings, optimize the operational mechanism, strengthen front-line regulation, and increase market development efforts, with a focus on making price signals more effective, risk management tools more practical, and helping enterprises make better use of them, all while enhancing the global influence of "Chinese prices".

BOX 9 Containerized Freight Index (Europe Service) futures contract was launched to support the high-quality development of the shipping industry

Approximately 95 percent of China's imported and exported goods are transported by sea. Since 2020, the international shipping market has experienced significant price fluctuations due to multiple international and domestic factors, which has increased market risks and heightened the demand for hedging solutions. On August 18, 2023, the SHFE launched the Containerized

Freight Index (Europe Service) futures contract, designed to help shipping companies and foreign trade enterprises manage risks, improve risk management capabilities across the industry, and enhance international competitiveness.

Designed based on the general principles of "service index, international platform, RMB denomination and cash settlement", the new futures contract is China's first shipping futures product, the first futures contract based on services, and the first cash-settled index futures product to be listed on a commodity futures exchange. Open to international investors, the Containerized Freight Index (Europe Service) futures contract is a bi-monthly contract, with trading hours from 9:00 to 11:30 a.m. and 1:30 to 3:00 p.m. The underlying asset is the Shanghai (Export) Containerized Freight Index based on Settled Rates (Europe Service), with a minimum price fluctuation of 0.1 index points, where each index point corresponds to RMB 50. The daily price limit is ±10 percent of the settlement price of the preceding trading day and the minimum trading margin is 12 percent of the contract value. The contract is cash-settled, with each unit representing 1 lot.

As of end-2023, the Containerized Freight Index (Europe Service) futures contract had been trading for 90 days, with a cumulative trading volume of 25.5765 million lots and an average daily volume of 284,200 lots. The cumulative trading turnover reached RMB 1,167.608 billion, with an average daily turnover of RMB 12.973 billion. The position stood at 108,858 lots when the market closed on December 29. Overall, the new futures contract performed soundly, receiving positive feedback from the market.

9.2 Financial futures and options market

9.2.1 Performance of the financial futures and options market

9.2.1.1 Stock index futures

In 2023, the total trading volume of the four stock index futures, namely CSI 300, SSE 50, CSI 500, and CSI 1000, was 70.0538 million lots, down 5.96 percent year on year (see Figure 9.5), with a total value of RMB 77.12 trillion, down 10.69 percent year on year. The average daily trading volume was 289,500 lots, down 5.96 percent year on year, and the average daily positions were 843,600 lots, up 24.20 percent year on year. The average daily volume to open interest ratio was 0.34, which was maintained at a low level (see Figure 9.6). The correlations between the stock index futures prices and spot prices of the four stock index futures were high. The price correlation coefficients between the closing price of the dominant contracts and the closing price of the corresponding underlying index of CSI 300, SSE 50, CSI 500, and CSI 1000 futures were 0.9983, 0.9972, 0.9975, and 0.9970 respectively.

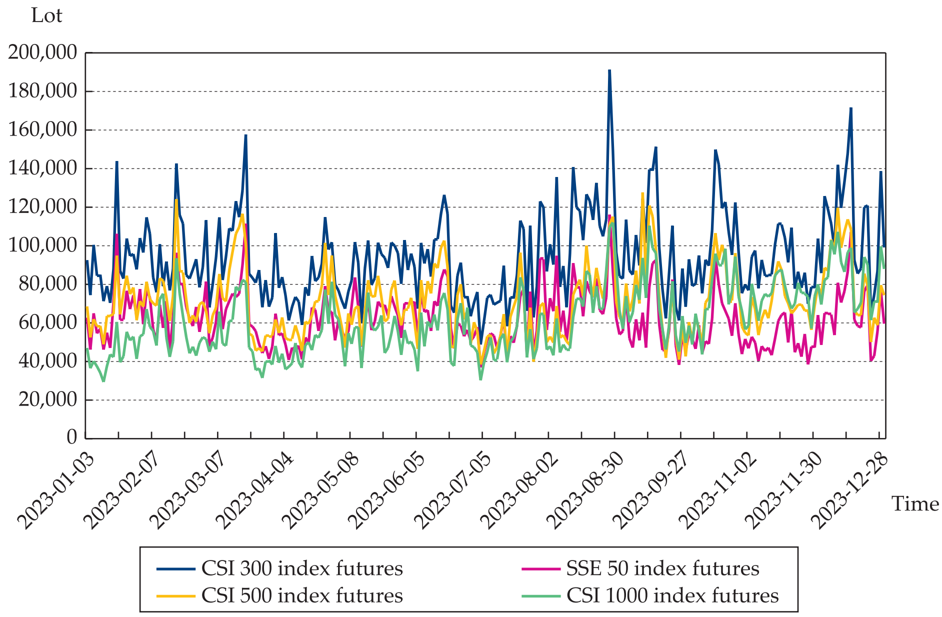

Figure 9.5 Daily trading volume of stock index futures in 2023

[Source: China Financial Futures Exchange (CFFEX)]

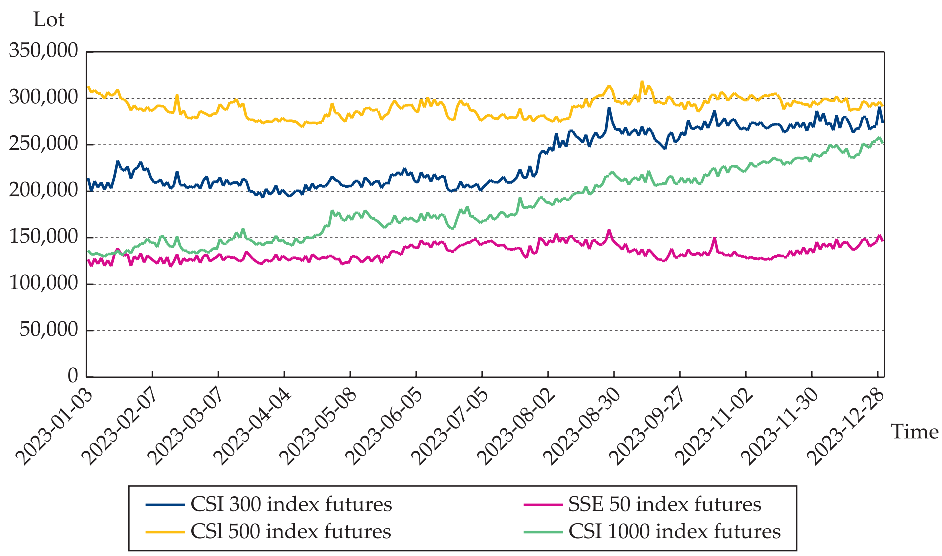

Figure 9.6 Daily positions of stock index futures in 2023

(Source: CFFEX)

9.2.1.2 Treasury bond futures

In 2023, the 2-year, 5-year, 10-year, and 30-year treasury bond futures registered a total trading volume of 45.6739 million lots, with a total value of RMB 55.78 trillion, up 17.67 percent and 20.17 percent year on year respectively. The average daily trading volume and average daily positions were 188,700 lots and 399,100 lots, growing by 17.67 percent and 12.36 percent year on year respectively (see Figure 9.7 and Figure

9.8). The average daily trading volume to open interest ratio was 0.47, which was maintained at a reasonable level. The treasury bond futures prices and spot prices of the four treasury bond futures were highly correlated. The price correlation coefficients between the price of the dominant contracts of 2-year, 5-year, 10-year, and 30-year treasury bond futures and the spot price were 0.9612, 0.9775, 0.9822, and above 0.9987 respectively. In 2023, the deliveries of 15 treasury bond futures contracts were completed successfully, with a total of 40,367 lots delivered and an average delivery rate of 3.19 percent. The deliveries were handled smoothly.

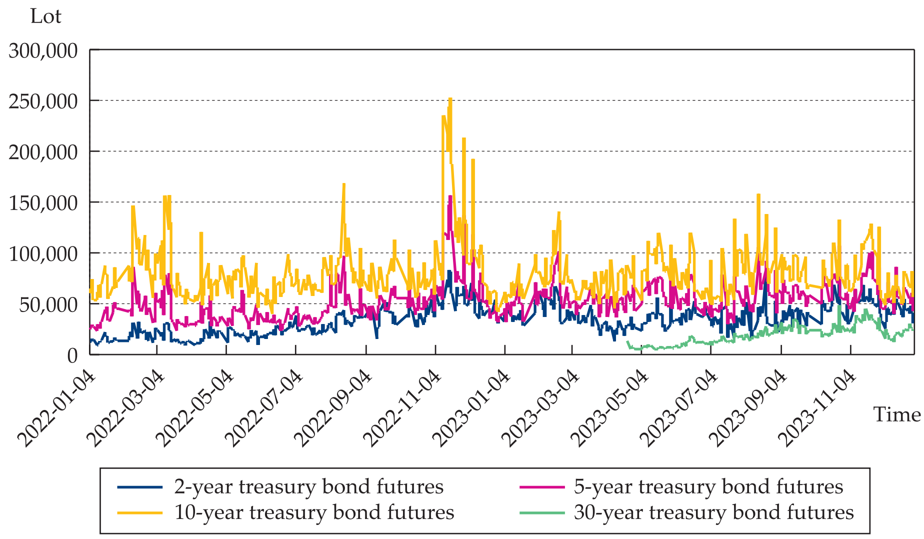

Figure 9.7 Daily trading volume of treasury bond futures from 2022 to 2023

(Source: CFFEX)

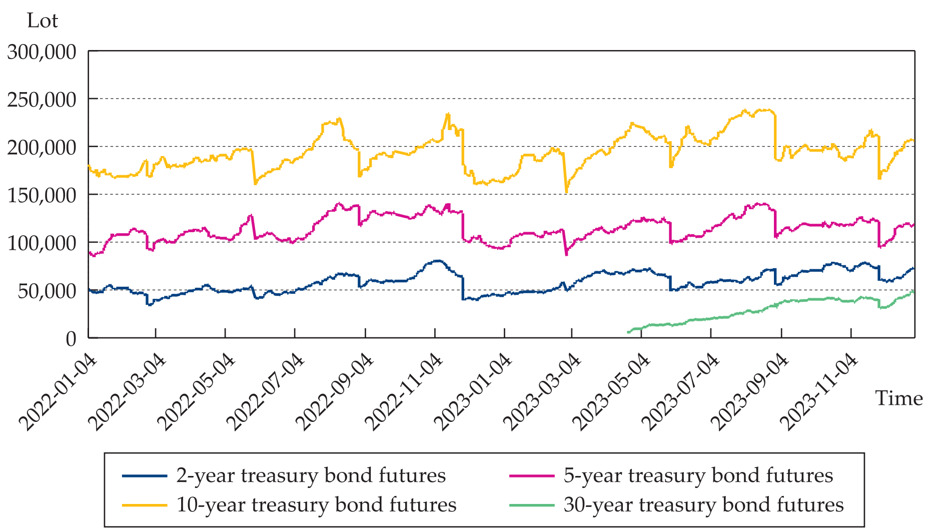

Figure 9.8 Daily positions of treasury bond futures from 2022 to 2023

(Source: CFFEX)

9.2.1.3 Stock index options

In 2023, the CSI 300, SSE 50 and CSI 1000 index options saw a total trading volume of 52.6123 million lots, with an average daily trading volume of 217,400 lots, up 36.47 percent year on year (see Figure 9.9). The total notional trading value was RMB 17.69 trillion, with an average daily notional trading value of RMB 95.857 billion, up 31.11 percent year on year. The cumulative premium trading value was RMB 269.125 billion, up 1.81 percent year on year. The average daily positions were 360,000 lots, up 70.71 percent year on year. The average daily volume to open interest ratio was 0.60, which was maintained at a relatively low level (see Figure 9.10). The correlations between the stock index options prices and spot prices of the stock index options were high. The price correlation coefficients between the synthetic futures price of the current month at-the-money (ATM) contracts of CSI 300, SSE 50 and CSI 1000 index options and the closing price of the corresponding underlying index were 0.9992, 0.9984, and 0.9991 respectively, and those between the synthetic futures price of the current month ATM contracts of CSI 300, SSE 50 and CSI 1000 index options and the closing price of the current month contracts of CSI 300, SSE 50 and CSI 1000 index futures were 0.9999, 0.9999, and 0.9999 respectively.

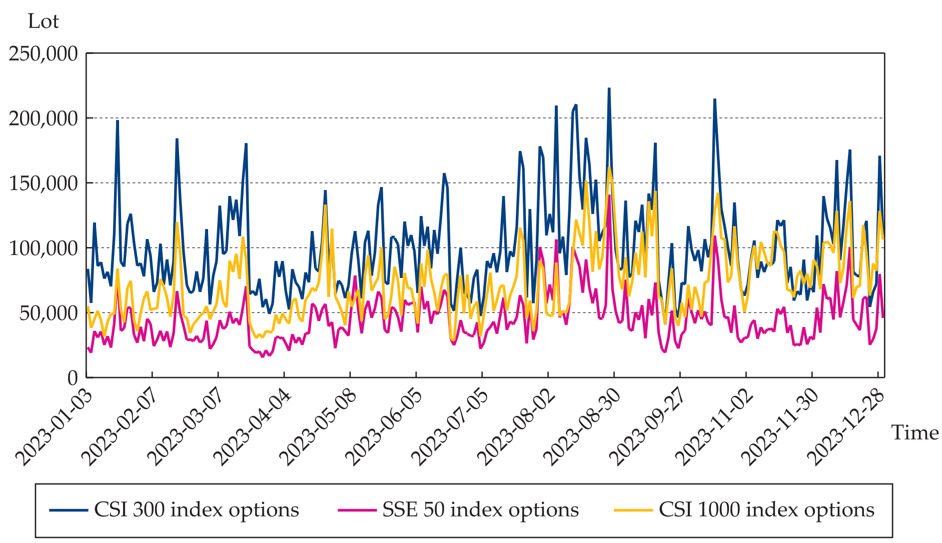

Figure 9.9 Daily trading volume of stock index options in 2023

(Source: CFFEX)

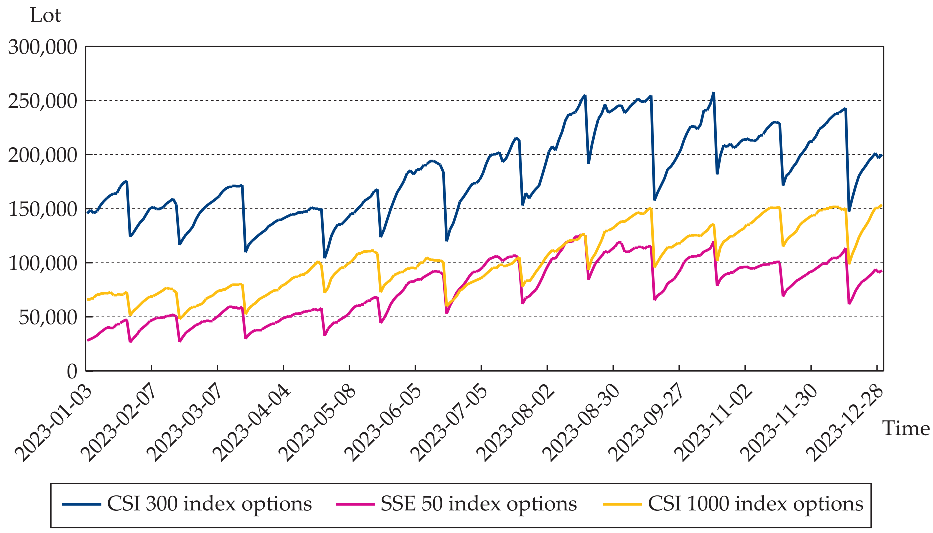

Figure 9.10 Daily positions of stock index options in 2023
(Source: CFFEX)

9.2.1.4 Stock options

In 2023, the cumulative trading volume of SSE ETF options was 991 million contracts, including 527 million call options contracts and 463 million put options contracts. The average daily trading volume and average daily positions were 4.0941 million contracts and 5.4831 million contracts respectively. The total notional trading value was RMB 32.73 trillion, with an average daily notional trading value of RMB 135.260 billion. The cumulative premium trading value was RMB 455.159 billion, with an average daily premium trading value of RMB 1.881 billion. The number of stock option investors grew steadily, with the total number of option investor accounts reaching 639,700 at end-2023, representing an increase of 48,400 over the year. In 2023, the average daily volume to open interest ratio of the stock options market on the SSE was 0.75 and the average daily futures trading volume to spot trading volume ratio was 0.21. The quality index of the options market averaged 118.80 (values above 100 indicate sound liquidity and high pricing efficiency), and the market quality continued to improve. The risk index of the options market averaged 33.15 (values below 60 indicate relatively low risks), and the market risks were controlled at a low level.

In 2023, the average daily trading volume of CSI 300 ETF options, ChiNext Board ETF options, CSI 500 ETF options, and SZSE 100 ETF options on the SZSE was 198,300 contracts, 762,900 contracts, 132,800 contracts, and 95,600 contracts respectively and the average daily positions were 259,800 contracts, 973,500 contracts, 184,500 contracts, and 130,500 contracts respectively. The four ETF options realized a cumulative trading volume of 288 million contracts, with a total notional trading value of RMB 8.46 trillion. The cumulative premium trading value was RMB 132.016 billion. As of end-2023, there were 313,800 investor accounts for the four ETF option varieties on the SZSE. A total of 89 securities companies and 32 futures companies were granted access to the option brokerage business and 50 securities companies were granted access to options proprietary trading. There were 21 institutions engaged in the stock options market-making business, including 18 primary market makers and 3 general market makers. The average daily volume to open interest ratio of CSI 300 ETF options, ChiNext Board ETF options, CSI 500 ETF options, and SZSE 100 ETF options on the SZSE was 0.78, 0.81, 0.72, and 0.75, respectively, and the average daily futures trading volume to spot trading volume ratio of the four varieties was 0.04, 0.30, 0.06, and 0.03, respectively.

9.2.2 Main features of the financial futures and options market

9.2.2.1 The open interest of stock index futures and options steadily increased, and more institutional investors were involved in the market

In 2023, the open interest of stock index futures and options increased steadily, and institutional investors took up a larger share in both the trading volume and open interest in the stock index futures and options markets. The average daily positions of the four stock index futures products registered a total of 843,600 lots, up 24.2 percent year on year, and peaked on December 28, standing at 998,900 lots. The average daily positions of the three stock index option products totaled 360,000 lots, up 70.71 percent year on year, and peaked at 521,000 lots on September 14. Institutional investors accounted for 60.45 percent and 76.79 percent, respectively, of the trading volume and open interest in the stock index futures market, and took up 70.69 percent and 65.54 percent, respectively, of the trading volume and open interest in the stock index options market. Compared to 2022, institutional investors took up a larger share in both the trading volume and open interest, showing a stronger presence of institutions in the stock index futures and options markets.

9.2.2.2 The stock index futures and options markets remained stable, with market functions gradually leveraged

In 2023, the stock index futures and options markets remained stable, with the market size well aligned with the market of underlying assets. Trading activity in the markets was moderate and the futures and spot prices were highly correlated. Investors traded rationally and institutional investors dominated the markets. The indicators of the stock index futures and options markets were maintained at a reasonable level. Throughout the year, the volume to open interest ratio of the stock index futures market was 0.34, and the futures trading volume to spot trading volume ratio was 0.54. The volume to open interest ratio of the stock index options market was 0.6, and the futures trading volume to spot trading volume ratio was 0.21. Building on the stable operation of these products, stock index futures and options achieved coordinated development, with product functions brought into play.

9.2.2.3 The stock options market remained stable, with market functions steadily leveraged

The economic functions of stock options on the SSE became increasingly evident, contributing positively to the healthy development of the spot market. First, options provided effective risk management tools for the spot market. In 2023, the average daily insured market value of the options market was RMB 32.422 billion, underscoring the role of options in providing insurance. Second, options enhanced the stability of the spot market. After the introduction of options, the daily excess volatility of the corresponding underlying ETFs was significantly lower than before, effectively reducing volatility in the spot market. Third, options increased the size and liquidity of the underlying spot market. One month after the listing of the STAR 50 ETF options in 2023, the sizes of the ChinaAMC STAR 50 ETF and E Fund STAR 50 ETF increased by 25.78 percent and 23.91 percent respectively compared to the month before the listing. Fourth, options improved the pricing efficiency in the spot market. The launch of options enhanced the operating efficiency of ETFs and reduced the deviation between the trading prices and net asset values of ETFs. After the introduction of STAR 50 ETF options, the average daily discount/premium rate of ChinaAMC STAR 50 ETF dropped from 0.0583 percent to 0.0530 percent, and that of E Fund STAR 50 ETF decreased from 0.0881 percent to 0.0734 percent.

The SZSE options market continued to expand, and the economic functions of stock options steadily came into play. First, options provided insurance for the spot market and strengthened confidence in holding underlying assets. The unique hedging function of options helped strengthen investors' confidence in holding the underlying spot assets and alleviated selling pressure during market fluctuations, thereby enhancing market stability. In 2023, the average daily insured market value of the four ETF options on the SZSE was RMB 8.143 billion, which reduced the selling pressure in the spot market. Second, options promoted the development of the ETF market and stimulated market vitality. The launch of options enabled more diverse investment strategies and increased the demand for ETF investment. In 2023, the share of underlying ETFs of the four ETF options on the SZSE grew by 109.13 percent, attracting an additional RMB 51.027 billion in capital to the market.

9.2.2.4 The treasury bond futures market expanded steadily, with its function effectively leveraged

First, the treasury bond futures prices and spot prices of the treasury bond futures were highly correlated, with the basis maintained at a reasonable level. From the launch of the contracts up to end-2023, the price correlation coefficients between the settlement prices of the dominant contracts of 2-year, 5-year 10-year, and 30-year treasury bond futures (adjusted by conversion factors) and the net prices of the cheapest to delivery securities were 0.9874, 0.9893, 0.9941, and 0.9988, respectively. The basis generally remained within a reasonable range, with the average daily basis for the dominant contracts of 2-year, 5-year, 10-year, and 30-year treasury bonds registering RMB 0.069, RMB 0.169, RMB 0.294, and RMB 0.322, respectively.

Second, the price showed a contango trend and the delivery scale of the 2312 contract increased in Q4. Since Q4 2023, rising funding rates have raised the cost of holding spot bonds, causing the treasury bond futures basis and the spread between contracts to narrow significantly. Short- to mid-term contracts shifted from long-term backwardation to contango. The average basis for the dominant contracts of 2-year, 5-year, 10-year, and 30-year treasury bonds in Q4 were RMB -0.114, RMB -0.035, RMB 0.033, and RMB 0.146, respectively. The spread between the 2312 and 2403 contracts showed a clear downward trend. As of end-November, the inter-contract spreads for the 2-year, 5-year, 10-year, and 30-year contracts had narrowed to RMB -0.148, RMB -0.085, RMB 0.095, and RMB -0.090, respectively. The delivery scale of all treasury bond futures on the 2312 contract increased, with the delivery scale of the TS2312 contract showing a particularly notable rise. The total delivery volume of the 2312 contract reached 18,135 lots, with a total delivery value of RMB 25.928 billion, accounting for 45 percent and 47 percent of the total delivery volume and value for the year. Due to the high IRR of the 2-year treasury bond futures and the contango of the second next quarter contract, both long and short positions were more inclined to engage in delivery. The delivery volume and value of the TS2312 contract reached 7,530 lots and RMB 15.103 billion respectively.

Third, the tick size of the 2-year treasury bond futures contract was narrowed, further improving the market microstructure. On November 6, 2023, the tick size of the 2-year treasury bond futures contract was adjusted from RMB 0.005 to RMB 0.002. This adjustment helped align the price movements of the 2-year treasury bond futures with the accuracy of quotes for the corresponding treasury bonds, enhanced the effectiveness of strategies such as futures-spot hedging and arbitrage, and supported investors in achieving more precise risk management. Following the adjustment, the trading volume of the 2-year treasury bond futures contract increased, with the market remaining rational and stable. According to calculations, in the first month after the adjustment, liquidity increased, friction costs decreased, and the accuracy of quotes improved in the 2-year treasury bond futures market.

9.2.3 Innovation and institutional building of the financial futures and options market

9.2.3.1 30-year treasury bond futures were listed

On April 21, 2023, the 30-year treasury bond futures were listed on the CFFEX, filling the gap for ultra-long-term interest rate risk management tools and marking the establishment of the treasury bond futures product system, covering the full benchmark yield curve from the short, medium and long to ultra-long ends.

Since its launch, the 30-year treasury bond futures have operated smoothly, with rational trading and the following characteristics. First, the market steadily expanded. In 2023, the average daily trading volume of the 30-year treasury bond futures was 19,000 lots and the average daily positions were 29,300 lots. Second, futures and spot prices were highly correlated, with the price correlation coefficient between the 30-year treasury bond futures and the corresponding spot bonds reaching 0.9988. Third, deliveries were handled smoothly. The average delivery rate of the 30-year treasury bond futures was 4.33 percent.

9.2.3.2 The second batch of banks and insurers began participating in treasury bond futures trading

In 2023, the second batch of banks and insurers began participating in the trading of treasury bond futures. In the banking sector, on January 4, 2023, Standard Chartered Bank (China) officially entered China's treasury bond futures market as part of the second batch of pilot banks. As the first foreign-funded bank to participate in the trading of treasury bond futures, Standard Chartered Bank (China) has used treasury bond futures to manage interest rate risks in areas such as treasury bond underwriting, market-making, and trading since its entry into the market. This has yielded positive results and effectively supported the high-quality development and high-standard opening-up of the bond market. In the insurance sector, the second batch of three institutions, namely Sun Life Everbright Asset Management, Huatai Asset Management, and New China Asset, began trading treasury bond futures in July 2022, September 2022, and March 2023 respectively. With their participation, all insurers from the first two batches have entered the market and established regular trading activities. Since their entry, these institutions have been exploring the use of treasury bond futures to reduce fluctuations in the net asset value of insurance portfolios, lock in future asset acquisition costs, and support asset-liability management, accumulating valuable experience in this process.

9.2.3.3 Stock index futures trading fees were reduced

On March 20, 2023, the CFFEX further adjusted the trading arrangements for stock index futures, lowering the fees for closing out intraday positions in stock index futures from 0.0345 percent to 0.023 percent of the notional value.

9.2.3.4 The market maker management system was optimized to improve market liquidity

First, the assessment scheme for stock index options market makers was optimized. In 2023, the CFFEX revised and optimized the assessment scheme for stock index options market makers, with a focus on improving the timing of quotes, better matching market demand with market maker resources, strengthening assessment management, and enhancing the feedback process. After the optimized scheme was implemented in December 2023, the depth at the top five price levels for current-month contracts increased by 2 percent and the optimal bid-ask spread narrowed by 69.7 percent on average, resulting in a significant improvement in market liquidity.

Second, market-making trading was launched for 30-year treasury bond futures. In April 2023, the CFFEX completed the recruitment of market makers for 30-year treasury bond futures. Upon the introduction of the new futures, market-making trading was launched simultaneously. Market makers actively fulfilled their quotation obligations and provided adequate and reasonable liquidity to ensure the smooth operation of the market.

Third, the first qualification rotation of primary and general market makers for treasury bond futures was conducted. In March 2023, the CFFEX carried out the first qualification rotation of primary and general market makers for treasury bond futures. Following the rotation, two market makers transitioned smoothly. The implementation of qualification rotation further enhanced the tiered structure of market makers, fostering a more diversified market maker landscape.

9.2.3.5 The stock options product system continued to improve

On June 5, 2023, the ChinaAMC STAR 50 ETF options and E Fund STAR 50 ETF options were listed on the SSE. As of end-2023, the cumulative trading volume of these two STAR 50 ETF options was 95.8926 million contracts, with an average daily trading volume of 675,300 contracts. The total notional trading value was RMB 938.630 billion, with an average daily notional trading value of RMB 6.610 billion. The average daily premium trading value was RMB 164 million and the average daily positions stood at 1.367 million contracts. Currently, the SSE options market offers five ETF option products, namely SSE 50 ETF options, CSI 300 ETF options, CSI 500 ETF options, ChinaAMC STAR 50 ETF options, and E Fund STAR 50 ETF options, covering four core broad-based indices: SSE 50 Index, CSI 300 Index, CSI 500 Index, and STAR 50 Index.

9.2.3.6 The stock options business rules system was optimized

In 2023, the SSE, in line with the deepening of the registration-based IPO system, advanced the revision of the *Trading Rules for the Stock Options Pilot Program* and *Measures for the Administration of Risk Control for the Stock Options Pilot Program*. The SZSE, on the other hand, revised and improved the *Guidelines for the Market Maker Business of the Stock Options Pilot Program* for greater standardization and transparency of market maker operations, further improving the quality and efficiency of market services.

9.2.3.7 The role of stock options market makers was leveraged

In 2023, two securities companies and four futures subsidiaries became primary market makers for stock options on the SSE, while one futures subsidiary was added as a general market maker. The proportions of contract transactions between options market makers, between market makers and investors, and between investors on the SSE were 18.02 percent, 57.43 percent, and 24.55 percent respectively, reflecting a reasonable distribution of trading activity across market participants. Meanwhile, the time-weighted average bid-ask spread rate of primary market makers was 25.99 percent on average, and the weighted average participation rate was 95.43 percent on average, both exceeding the basic obligations set for market makers. This helped mitigate the impact of large orders on the market and improved the market quality. In 2023, the SZSE optimized its incentive mechanism for stock options market makers by increasing the frequency of transaction fee reductions and incentive payments for stock options market makers, with the payment schedule adjusted from quarterly to daily. These measures encouraged market makers to enhance the quality of their quotes and better fulfill their role in providing liquidity.

9.2.4 Opening-up of the financial futures and options market

In 2023, the CFFEX continued to advance BRI overseas cooperation projects with the PSX and the CEINEX. First, it facilitated the launch of the PSX's new generation trading system and continued to maintain close communication with Pakistan's regulatory authorities to ensure the smooth progress of various initiatives at the PSX. Second, in line with the guidelines of the 3rd China-Germany High-Level Financial Dialogue and the overall arrangements of the CSRC, the CFFEX worked closely with the SSE and Deutsche Börse Group to jointly advance the CEINEX's offshore A-shares index futures project.

9.2.5 Outlook of the financial futures and options market

First, efforts will be made to enrich financial futures and options products, encourage more MLT funds to enter the market, optimize the options trading mechanism, further leverage the hedging function of options, and promote the interconnected development of the futures and spot markets. Second, the opening-up of the financial futures market will be steadily advanced, and the level of technological regulation and effectiveness of self-regulation will be improved to strike a good balance between development and security.

9.3 RMB interest rate derivatives market

9.3.1 Performance of the RMB interest rate derivatives market

9.3.1.1 The trading and clearing volumes of interest rate swaps increased rapidly year on year, with an overall downward trend in the curve

The trading volume of interest rate swaps increased significantly year on year. In 2023, the interest rate swap market registered a cumulative trading volume of 352,000 lots, up 44.0 percent year on year, and the notional principal totaled RMB 31.5 trillion, up 50.2 percent year on year. Main participants in the interest rate swap market remained joint-stock commercial banks, securities companies and foreign-funded banks, which together accounted for 78.5 percent of the market share, down 1 percentage point from the previous year. Among other investor types, the trading activity of overseas investors continued to grow, with total trading turnover amounting to RMB 2.1 trillion, a substantial increase of 307.1 percent year on year, accounting for 3.3 percent of the total interest rate swap trading turnover (calculated unilaterally).

The scale of centrally cleared interest rate swaps increased significantly. In 2023, the central clearing of interest rate swap registered a total volume of 350,100 lots, with a notional principal of RMB 31.02 trillion, up 49.36 percent from the same period of the previous year. During the year, 44 new institutions participated in the central clearing of interest rate swaps. As of end-2023, there were nine general clearing members, 39 direct clearing members, and 333 non-clearing members.

In 2023, the interest rate swap curve initially declined and then rebounded, showing an overall downward trend, with a more significant decline in the long end. The highs of the year for most interest rate swaps with key maturities were observed in H1, while the lows of the year appeared in H2. At end-2023, the prices of FR007_1Y and FR007_5Y swaps dropped by 19 bps and 45 bps respectively from end-2022 to 1.99 percent and 2.32 percent (see Figure 9.11). The prices of Shibor3M_1Y and Shibor3M_5Y swaps dropped by 15 bps and 56 bps respectively from end-2022 to 2.28 percent and 2.58 percent (see Figure 9.12).

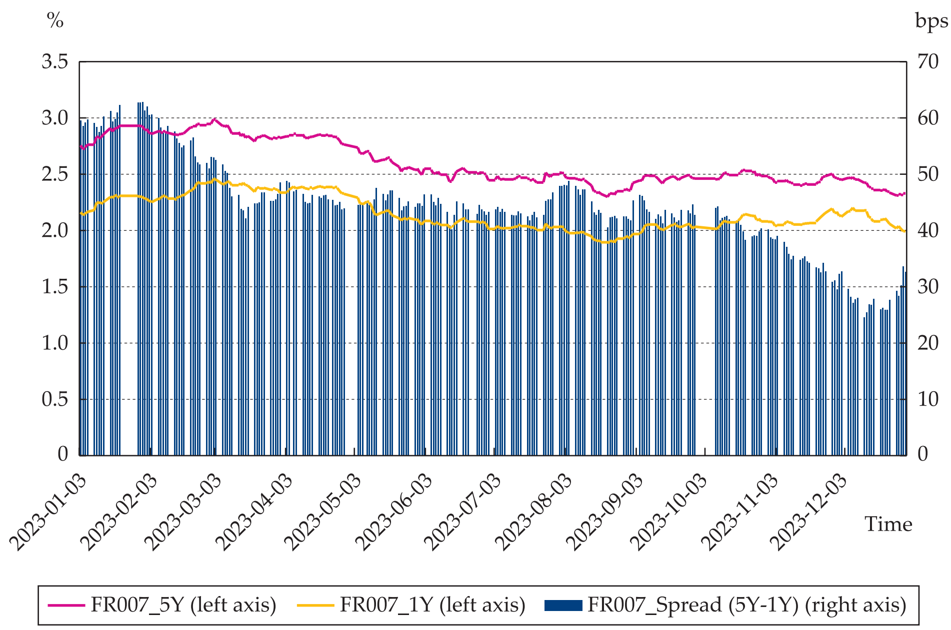

Figure 9.11 Price movements of FR007 swaps in 2023

(Source: CFETS)

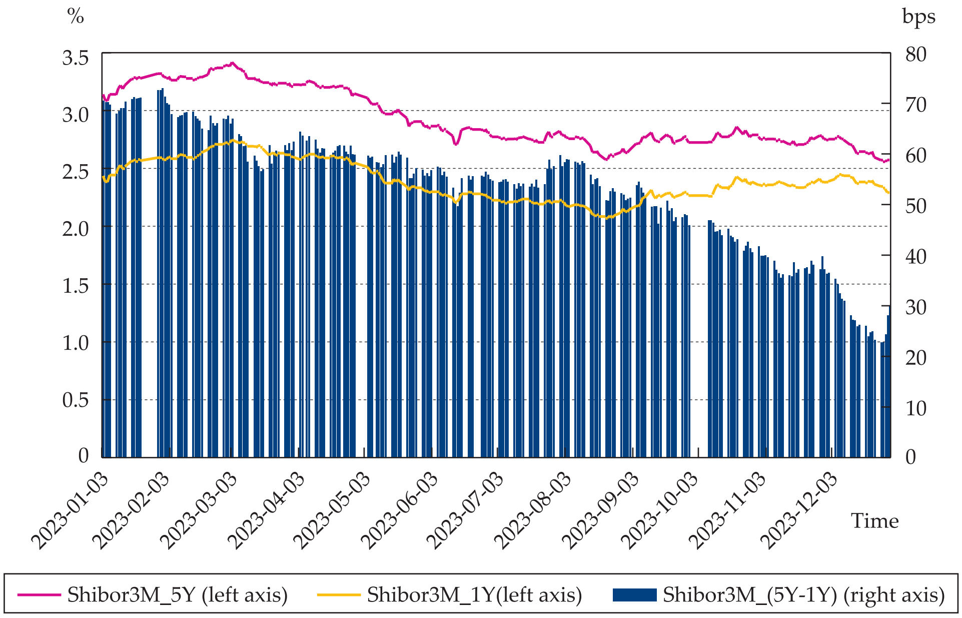

Figure 9.12 Price movements of Shibor3M swaps in 2023

(Source: CFETS)

9.3.1.2 The trading volume of both bond forwards and interest rate options increased significantly

In 2023, the bond forward market (including standard bond forwards) reported a trading volume of 3,856 lots, and the notional principal totaled RMB 313.70 billion, up 20.7 percent year on year. Standard bond forwards accounted for a notional principal of RMB 308.82 billion, up 18.8 percent year on year (see Figure 9.13). Over the year, the notional principal of interest rate options transactions amounted to RMB 160.83 billion, up 123.3 percent year on year.

In the standard bond forward market, by products of trading, the 5-year contract remained the dominant product, but the share of the 10-year contract saw a significant increase. In 2023, the turnover of 3-year, 5-year, and 10-year contracts was RMB 28.83 billion, RMB 157.54 billion, and RMB 120.77 billion respectively, accounting for 9.3 percent, 51.0 percent, and 39.1 percent of the total. Notably, the share of the 10-year contract rose by nearly 16 percentage points. By participants, securities companies, joint-stock commercial banks, and large commercial banks were the major participating institutions, with their trading volume accounting for 53.6 percent, 30.7 percent, and 9.4 percent of the total respectively. By underlying assets of the contract, the amount of contracts with CDB bonds as the underlying asset traded and cleared was RMB 146.59 billion while the amount of contracts with ADBC bonds as the underlying asset traded and cleared was RMB 162.23 billion, reflecting a fairly balanced distribution of transactions. By settlement methods, cash-settled contracts were the dominant type, with a total trading and clearing volume of RMB 307.14 billion.

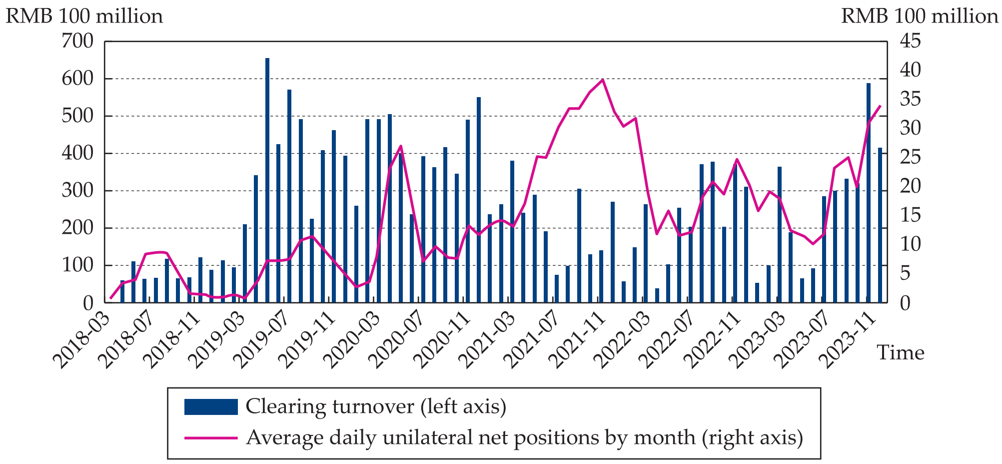

Figure 9.13 Performance of standard bond forwards from 2018 to 2023

(Source: SHCH)

9.3.2 Main features of the RMB interest rate derivatives market

9.3.2.1 The trading volume of interest rate derivatives saw significant growth, with trading activity concentrated in contracts with a maturity of 1 year or less

In 2023, the total trading volume of interest rate derivatives reached RMB 31.98 trillion, up 50.22 percent year on year. Interest rate swaps accounted for 98.5 percent of the total trading volume. Trading was primarily focused on interest rate swaps with maturities of 1 year or less, whose trading volume totaled RMB 21.8 trillion, accounting for 69.0 percent of the total. The trading volume of interest rate swaps with maturities of 1~5 years and 5~10 years amounted to RMB 2.5 trillion and RMB 7.3 trillion respectively, accounting for 7.8 percent and 23.1 percent of the total.

9.3.2.2 The reference rate of interest rate swaps remained dominated by FR007 and Shibor

In 2023, the reference rate of interest rate swaps was dominated by FR007 and Shibor. The combined trading volume of interest rate swaps with FR007 and Shibor as the reference rate accounted for 99.1 percent of the total. Specifically, the trading volume of interest rate swaps with FR007 as the reference rate reached RMB 28.9 trillion, accounting for 91.7 percent of the total. The trading volume of interest rate swaps with Shibor as the reference rate amounted to RMB 2.3 trillion, accounting for 7.4 percent of the total.

9.3.3 Innovation and institutional building of the RMB interest rate derivatives market

9.3.3.1 A quotation board for interest rate options was launched

A quotation board for interest rate options was introduced, providing a comprehensive display of level-2 quotes for standard interest rate options contracts at various price levels throughout the market, further enhancing the trading services for interest rate options.

9.3.3.2 Standardized interest rate swap contracts linked to NCDs were launched

On November 28, 2023, the SHCH and the CFETS optimized the clearing services for standardized interest rate swaps by launching standardized interest rate swap contracts linked to PrimeNCD, the offered interest rate of major national banks for 3-month NCDs. The swaps are traded using the X-Swap system and adopt real-time centralized clearing and cash settlement, facilitating better management of short-term interest rate risks by market participants. As of end-2023, the total volume of NCD-linked standardized interest rate swaps traded and cleared was RMB 3.19 billion, with the PrimeNCD3M_2403 contract showing the highest liquidity. A total of 22 institutions participated in the market.

9.3.4 Opening-up of the RMB interest rate derivatives market

9.3.4.1 Swap Connect was officially launched

On May 15, 2023, Swap Connect, or the mutual access between the mainland and Hong Kong interest rate swap markets, was officially launched. With institutional arrangements in place for trading, clearing, and settlement, the Swap Connect scheme enables domestic and overseas investors to conveniently conduct RMB interest rate swap transactions and centralized clearing via financial market infrastructure institutions in the Chinese mainland and Hong Kong without changing their existing trading practices, while ensuring compliance with the laws and regulations of the two markets. The launch of Swap Connect would consolidate and improve Hong Kong's status as an international financial center, provide a more convenient channel to manage interest rate risks for overseas investors, and steadily promote China's financial opening-up. As of end-2023, 20 mainland dealers and 51 overseas investors participated in the Swap Connect scheme, clearing more than 2,000 interest rate swap contracts, with an aggregate amount exceeding RMB 900 billion. Overseas institutions became important participants in the interest rate swap market, with their clearing volume growing by nearly 340 percent year on year and accounting for 5.92 percent of the market total.

9.3.4.2 The first batch of overseas investors participated in the standard bond forward transactions

In October 2023, two products managed by Dymon Asia Capital (Singapore) Pte. Ltd. became the first overseas investors to participate in standard bond forward transactions through China Interbank Bond Market (CIBM) Direct channel.

9.3.5 Outlook of the RMB interest rate derivatives market

First, more investment, trading, and risk management tools will be provided for market institutions and an intelligent trading ecosystem centered around the China Inter Bank Market Trading System (CIBMTS) will be established, with iDeal as an extension. This aims to expand the scope of risk management services of CIBMTS and promote the use of trading interfaces and the trading robot, thereby strengthening risk management before, during, and after transactions. Second, efforts will be continued to investigate the trading and clearing needs of market participants, expand the product range, optimize system functions, and improve the service system. Marketing and promotion efforts will also be intensified, with targeted outreach aimed at encouraging domestic and overseas institutions to quickly enter the market, thereby expanding business scale. In addition, the participant structure will be solidified and preparations will be made in terms of products, institutional frameworks, and systems to support the expansion of market participants.

BOX 10 Swap Connect was launched

On May 5, 2023, the PBOC, the Securities and Futures Commission (SFC), and the Hong Kong Monetary Authority (HKMA) made a joint announcement on the launch of Swap Connect on May 15. Adhering to the current development path of the interbank derivatives market and drawing on the mature experience and overall framework of the bond market's opening-up, Swap Connect allows domestic and overseas investors to easily conduct RMB interest rate swap transactions and centralized clearing without changing their existing trading practices and while ensuring compliance with the laws and regulations of both the Chinese mainland and Hong Kong. As a result, it reduces the complexity and difficulty of market participation for both domestic and overseas investors and better meets the interest rate risk management needs of overseas investors.

Since its launch, the Swap Connect scheme has received a positive market response, with both domestic and overseas market participants actively engaging in trading. As of end-2023, 51 overseas institutions had participated in the scheme and 20 mainland market makers for Swap Connect had been providing quotations for overseas institutions, with an aggregate notional amount of nearly RMB 1 trillion traded. The investor base was diverse, including overseas central banks, overseas commercial banks, overseas securities companies, and overseas funds. The range of underlying assets for trading was wide, with reference rates such as FR007, Shibor_3M, and Shibor_O/N, and maturities spanning from 1 month to 5 years. The primary reference rate for trading was FR007, with maturities of 1 year or less.

As the demand from overseas investors for RMB interest rate risk management continues to rise, the CFETS will work closely with other financial infrastructure institutions to further enhance the trading and clearing mechanisms of Swap Connect, introduce interest rate swap contracts that use the International Monetary Market (IMM) dates for their payment cycles (IMM contracts) to the scheme, support historical dates and forward start dates, launch solo compression services, expand and smooth the Swap Connect *channel, and facilitate participation by overseas investors, thereby promoting the high-quality development and high-standard opening-up of the interbank derivatives market.*

9.4 RMB credit derivatives market

9.4.1 Performance and features of the RMB credit derivatives market

9.4.1.1 The interbank Credit Risk Mitigation (CRM) instrument market witnessed steady growth with increasingly stable scale and structure

In 2023, a total of 317 transactions of CRM instruments were concluded, with a total notional principal of RMB 65.813 billion, up 24 percent year on year. The total transaction volume was 7.4 times that of 2018. The outstanding notional principal of various CRM instruments totaled RMB 97.279 billion, up 46 percent year on year. Credit Risk Mitigation Warrants (CRMWs) and Credit Risk Mitigation Agreements (CRMAs) remained the dominant CRM instruments traded, together accounting for over 90 percent of the notional principal of all CRM transactions. Throughout the year, 177 new CRMWs were made available, with a total notional principal of RMB 35.754 billion, up 33 percent year on year; 89 CRMA transactions were made, with a notional principal of RMB 25.113 billion, up 18 percent year on year; 25 Credit Default Swap (CDS) transactions were made, with a notional principal of RMB 2.647 billion, up 11 percent year on year; and 26 Credit-Linked Notes (CLNs) were made available, with a notional principal of RMB 2.299 billion, down 9 percent year on year. The outstanding notional principal of CRMWs amounted to RMB 60.977 billion, up 38 percent year on year; that of CRMAs totaled RMB 31.326 billion, up 72 percent year on year; that of CDS reached RMB 1.082 billion, down 36 percent year on year; and that of CLNs was RMB 3.894 billion, up 49 percent year on year.

9.4.1.2 CRM market participants continued to grow in number, with securities companies seeing a notable rise in net sales

As of end-2023, there were a total of 163 CRM market participants, among which 67 were CRM Major Dealers (including 45 banks, 21 securities companies, and 1 credit enhancement institution), 2 more than those of end-2022; and 96 were CRM Dealers, an increase of 16 from end-2022. Among CRM Dealers, 61 were asset management institutions (472 products), an increase of 11 from end-2022, 10 were non-financial enterprises, an increase of 4 from end-2022, and 25 were financial institutions, one more than those at end-2022. In addition, there were a total of 59 CRMW issuers and 55 CLN issuers, representing increases of 2 and 3 respectively compared to end-2022.

In 2023, a total of 40 CRM Major Dealers and 39 CRM Dealers participated in CRM transactions, setting a new record for the number of market participants. Among them, 4 CRM Major

Dealers and 16 CRM Dealers were engaging in CRM business for the first time. Overall, CRM Major Dealers were net sellers, while CRM Dealers were net buyers. The net sellers of CRM instrument transactions were mainly joint-stock commercial banks, urban commercial banks, large state-owned banks, securities companies, and credit enhancement institutions. Securities companies saw a notable increase in net sales, shifting from a near-balanced position to being a net seller. The net buyers of CRM instrument transactions were mainly asset management institutions, foreign-funded banks, and rural commercial banks. The asset management institutions included public funds, private equity funds, securities companies' asset management businesses, and insurance asset management institutions.

9.4.1.3 The "second arrow" played an effective role, with CRM instruments driving a substantial increase in bond issuance by private enterprises

In 2023, a total of 24 institutions issued CRMWs, with joint-stock banks and urban commercial banks being particularly active, accounting for 40 percent and 39 percent, respectively, of the total notional principal of new CRMWs issued. The "bond issuance + CRMW issuance" model became the mainstream business model in the market, with a total of 146 CRMWs made available to support bond issuance and their total notional principal standing at RMB 32.552 billion, accounting for 91 percent of the total CRMW issuance. These CRMWs supported 95 enterprises in issuing bonds totaling RMB 70.279 billion, up 21 percent year on year. Specifically, a total of 47 CRMWs were linked to private enterprise bond issuance, with a notional principal of RMB 11.709 billion, up 139 percent year on year, supporting the bond issuance of private enterprises totaling RMB 19.925 billion, a year-on-year increase of 82 percent. In addition, 31 CRMWs linked to existing bonds were made available, accounting for 9 percent of the total CRMW issuance, with a total notional principal of RMB 3.202 billion, up 15 percent year on year. The reference entities of CRMWs were mainly rated AA and AA+, and the maturities basically matched those of the underlying bonds. The underlying bonds included debt financing instruments issued by non-financial enterprises in the interbank market, credit ABS, and corporate bonds. The geographical distribution of the 114 CRMW reference entities spanned 20 provinces within the Chinese mainland and a region outside the mainland. In terms of industries, reference entities were mainly dedicated to infrastructure investment and financing, manufacturing, and real estate. Furthermore, lead underwriters supported advanced manufacturing enterprises in the Yangtze River Delta region in issuing collective notes through credit enhancement transactions involving CRMAs with credit enhancement institutions. This facilitated coordinated risk management between credit enhancement institutions and lead underwriters. By leveraging innovative market-based financial tools, financing efficiency was enhanced, financing costs were reduced, and financing channels for private enterprises became smoother.

9.4.1.4 The demand for contract-type credit derivatives in the interbank market was diverse

In 2023, the notional principal of contract-type credit derivatives traded in the interbank market was RMB 27.76 billion, up 17 percent year on year. These products were widely used for credit release and risk hedging. Securities companies were the primary participants, while medium and large banks and credit enhancement institutions also played an active role. Throughout the year, the volume of contract-type credit derivatives cleared at the SHCH reached RMB 12.0057 billion. The range of underlying assets continued to expand to cover green panda bonds and green ABNs, while the number of participants in clearing increased to 44. The notional principal of CRMA transactions was RMB 25.113 billion. Securities companies and foreign-funded banks were the primary trading entities. Several credit enhancement institutions sold protection, with an average maturity of 1.5 years. The underlying assets were diverse, and the clearing methods included bilateral clearing between two contract parties and bilateral clearing through the SHCH. The notional principal of CDS transactions totaled RMB 2.647 billion. The transactions were mainly conducted by securities companies, with the active involvement of many commercial banks. The average maturity was 0.4 years, and the underlying assets involved commercial banks, large centrally administered SOEs, urban investment enterprises, and ABS portfolio products. The clearing methods included bilateral clearing between two contract parties (40 percent), bilateral clearing through the SHCH (36 percent), and CCP clearing (24 percent). Specifically, there were six CDS index transactions, with a notional principal of RMB 365 million, all linked to the CFETS-SHCH-GTJA High-grade CDS Index.

9.4.1.5 Credit derivatives of exchanges developed rapidly

As of end-2023, the SSE issued 165 warrants, with a notional principal of RMB 11.468 billion, supporting bond issuance in an accumulative amount of RMB 156.94 billion. The SSE reached 416 contracts with a notional principal of RMB 40.715 billion, supporting bond issuance in an accumulative amount of RMB 646.413 billion. A total of 35 institutions became issuers of credit protection warrants on the SSE.

As of end-2023, the SZSE reached 148 credit protection contracts with a notional principal of RMB 10.032 billion and issued 21 credit protection warrants with a notional principal of RMB 1.892 billion, supporting financing of RMB 87.4 billion. A total of 16 institutions became issuers of credit protection warrants on the SZSE.

9.4.2 Innovation and institutional building of the RMB credit derivatives market

9.4.2.1 A credit event determination mechanism was established to provide public credit event determination services

In 2023, the NAFMII continued to improve the supporting mechanisms for the credit derivatives market. It issued the *Rules for Determining Credit Events in Credit Risk Mitigation Instrument Transactions in China's Interbank Market* and established the first CRM instrument credit event determination group, along with a review expert pool. The determination mechanism adopts a dual-layer decision-making framework consisting of a determination group and review meetings. This market-based arrangement allows for collective discussions and unified judgments on relevant credit events, aiming to better meet the financial market's requirements for efficiency, fairness, and transparency.

9.4.2.2 Multi-name CDS business in the interbank market was expanded and product offerings were diversified

In 2023, the SHCH supported China International Capital Corporation Limited (CICC) and Guotai Junan Securities in successfully concluding the first multi-name CDS business linked to green ABNs in the interbank market. The transaction, concluded at the front office of the CFETS and cleared bilaterally through the SHCH, represents a significant innovation in green financial products.

9.4.2.3 Participants in credit derivatives clearing were diversified to support the development of the real economy

In 2023, the SHCH expanded the pool of participants in credit derivatives clearing by incorporating local credit enhancement institutions and increasing the number of securities companies and banks.

9.4.2.4 Value-added services for bilateral clearing of credit derivatives were expanded, with quality and efficiency enhanced

In 2023, the SHCH, building on the bilateral clearing of credit derivatives, provided market institutions with bilateral collateral management services and CRMA valuation services.

9.4.3 Outlook of the RMB credit derivatives market

First, continued efforts will be made to revise and improve the performance guarantee documents for financial derivatives transactions in the interbank market and strengthen the risk prevention mechanism of the derivatives business. Second, the development of the CRM instrument market will be advanced, with the credit event determination and resolution processes being refined and the processes and supporting mechanisms for warrant-type products being optimized. Third, the number of major dealers and issuers of credit protection instruments will be expanded, and the range of participants in the credit protection market will be diversified. Fourth, research will be conducted to explore the expansion of the coverage of clearing products, with a continued emphasis on improving clearing efficiency.

BOX 11 Credit event determination mechanism for CRM instruments was established

In recent years, as the rigid redemption of credit bonds has been gradually broken, risk management and investor protection have become increasingly important issues for participants in the interbank market and other stakeholders. The role of CRM instruments in preventing *and resolving credit risks has gained significant attention. However, in practice, market participants may have different interpretations of default situations and credit events, which can lead to disputes and affect the hedging effect of CRM instruments.*

To continuously improve the effectiveness of CRM instruments, the NAFMII issued the Rules for Determining Credit Events in Credit Risk Mitigation Instrument Transactions in China's Interbank Market, and established the first CRM instrument credit event determination group and a review expert pool for collective discussions and unified judgments on credit events, such as payment default and bond restructuring, that arise in credit derivatives transactions. Compared with traditional dispute resolution methods like arbitration and litigation, the credit event determination mechanism is more professional, efficient, and transparent, better addressing the needs of the financial market.

The credit event determination mechanism adopts a dual-layer framework consisting of a determination group and review meetings, with decisions made based on approval by the majority. Members of the determination group are selected based on factors such as the trading history of CRM instruments over the past two years, professional capabilities, and the representativeness of the institution type. The group is composed of 12 major dealers and 6 dealers, who vote independently after thorough discussions. If a matter is not agreed upon by at least 80 percent of the participating institutions, it will be brought to a review meeting. The review meeting is convened with five randomly selected experts from the review expert pool. After hearing the different positions presented by the determination group, the experts will vote to form the final conclusion. The first review expert pool consists of 19 senior experts from the finance, law, and accounting sectors, recommended by the market. Their expertise covers key areas such as bankruptcy, debt restructuring, dispute resolution, and valuation, all critical fields for determining credit events.

The implementation of this credit event determination mechanism is a significant step towards the maturity of China's credit derivatives market. The NAFMII will continue to ensure the fairness, transparency, and efficiency of the mechanism and promote the steady and orderly development of the CRM instrument market, thereby contributing to the development of the real economy and the resilience of the financial market.

9.5 RMB exchange rate derivatives market

9.5.1 Performance of the RMB exchange rate derivatives market

In 2023, the foreign exchange derivatives market operated smoothly, with the turnover totaling USD 23.2 trillion, equivalent to RMB 164.7 trillion, up 13.4 percent year on year. Specifically, the turnover of the RMB foreign exchange derivatives market was USD 21.8 trillion, equivalent to RMB 154.7 trillion, up

12.1 percent year on year. The turnover of RMB foreign exchange swaps, currency swaps, and options amounted to RMB 146.2 trillion, USD 368.95 billion, and USD 7.3 trillion respectively, up 12.8 percent, 150.8 percent, and 15.9 percent year on year. The turnover of RMB foreign exchange forwards reached RMB 8,457.8 trillion, down 3.3 percent year on year.

9.5.2 Main features of the RMB exchange rate derivatives market

9.5.2.1 The China-US interest rate spread was inverted and RMB/USD swap points fluctuated downwards

The China-US interest rate spread continued to widen, leading to a significant decline in onshore RMB swap points, which hit a record low. Throughout 2023, the US dollar remained in an interest rate hike cycle, with the rate reaching new highs, causing the China-US interest rate spread to hit new lows. Overall, the movement of foreign exchange swap points during the year was mainly driven by changes in the China-US interest rate spread. The correlation coefficient between the 1-year RMB/USD swap points and the China-US 10-year treasury bond yield spread was about 0.88, indicating a strong positive correlation between the two. In mid-year, driven by the Fed's hawkish stance and global risk aversion, the yield on the 10-year US Treasury bond peaked at 4.95 percent, a new high since 2008. During the same period, China implemented several interest rate and RRR cuts, which resulted in a continued decline in domestic interest rates. The divergence in monetary policy cycles between China and the US led to a widening China-US interest rate spread, driving the 1-year swap points to reach a record low of -2,736 bps. Throughout the year, the RMB/USD swap curve showed a downward trajectory, with the decline being especially noticeable for long-term swaps. At end-2023, the 1-week, 1-month, 3-month, and 1-year swap points closed at -51 bps, -230 bps, -63 bps, and -2,415 bps respectively, down 12 bps, 58 bps, 128 bps and 445 bps respectively from end-2022 (see Figure 9.14).

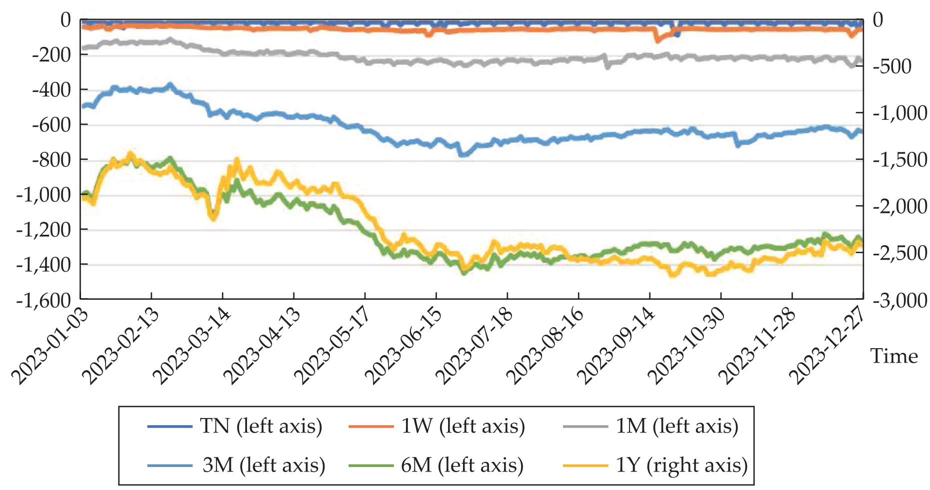

Figure 9.14 Movements of RMB/USD swap points of swaps with major maturities

(Source: CFETS)

9.5.2.2 Exchange rate expectations implied in derivatives markets such as options remained relatively stable

The correlation between the implied volatility of ATM options and the spot exchange rate declined. Despite ongoing depreciation of the RMB, the implied volatility of short-term USD/CNY ATM options has not risen since March. Instead, it gradually declined from its peak and remained in a narrow range. Although market sentiment fluctuated, it remained relatively stable, and there was no widespread panic over the continued depreciation of the RMB (see Figure 9.15).

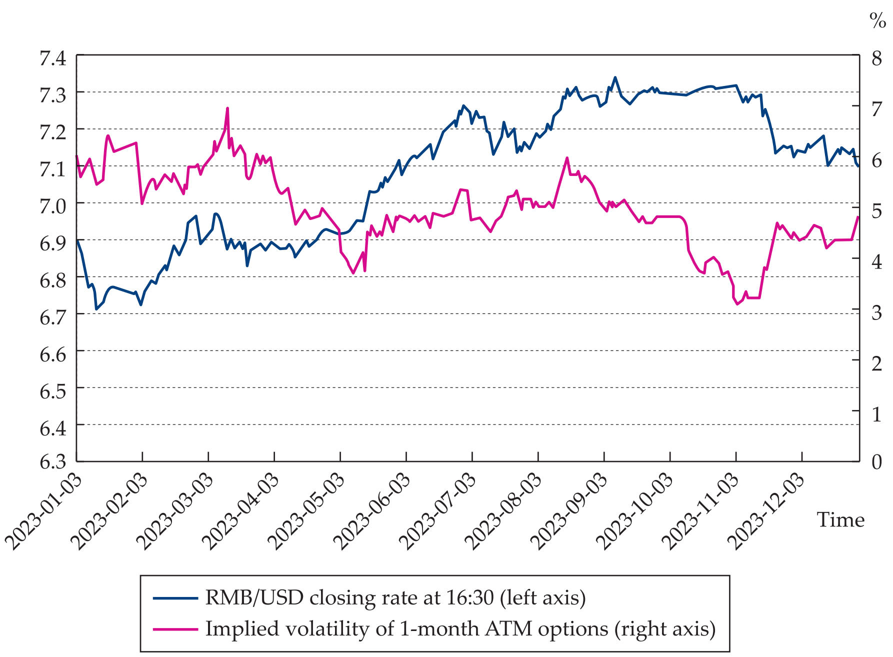

Figure 9.15 RMB/USD closing rate and implied volatility of 1-month ATM options

(Source: CFETS)

9.5.3 Innovation and institutional building of the RMB exchange rate derivatives market

9.5.3.1 The interbank currency swap business achieved active-active functionality, enhancing market business continuity

On January 9, 2023, the CFETS launched currency swap trading services across both production and intra-city data centers and successfully completed the switching and fallback between the two data centers, further enhancing business continuity.

9.5.3.2 Functions of currency swaps and other derivatives were optimized in line with the interest rate benchmark reform

In line with the international interest rate benchmark reform, efforts were made to ensure a smooth transition in the market. According to the arrangements for the discontinuation of the London Interbank Offered Rate (LIBOR) as a floating interest rate benchmark for the transactions of currency swaps and other products in the interbank market, adjustments were made to the reference rates for publicly quoted products and the benchmark curves for currency swaps, while optimizing supporting functions of currency swaps and other derivatives, aiming to ensure a smooth transition to the new benchmark interest rates.

9.6 OTC commodity derivatives market

9.6.1 Performance and features of the OTC commodity derivatives market

In 2023, the SHCH made the OTC commodity derivatives CCP clearing business available for 20 derivatives in six industries, i.e., freight, ferrous metals, non-ferrous metals, energy, chemicals, and carbon emission, with a total clearing volume of 56,500 lots and a clearing amount of RMB 23.5 billion (up 63.4 percent year on year). CNY Paraxylene Swap and CNY Methanol Swap accounted for a significant share, with clearing amounts of RMB 9.31 billion and RMB 5.93 billion respectively, accounting for 39.6 percent and 25.2 percent of the total. In addition, three new securities companies participated in the Shanghai Emission Allowance Forward (SHEAF) business. As of end-2023, there were seven general clearing members, nine direct clearing members, and eleven data providers in the OTC commodity derivatives CCP clearing business of the SHCH.

In 2023, the SHCH's Commodity Clearing Net (CCNet) was connected with six spot trading platforms, supported them in expanding 23 warehouses, and served 6,551 enterprises in collaboration with 18 banks. The business covered 46 products across six industries, i.e., chemicals, non-ferrous metals, ferrous metals, agricultural products, new energy, and oil & gas. Throughout the year, the SHCH, via the CCNet, cleared 131,900 spot transactions with a total delivery of 105.5533 million tons and a volume of RMB 653.939 billion (up 20.71 percent year on year).

9.6.2 Innovation and institutional building of the OTC commodity derivatives market

9.6.2.1 China's carbon derivatives definition document was formulated, further enriching market standards

To improve the standard system and promote the standardized and healthy development of the carbon derivatives business, the NAFMII issued the *China Carbon Derivatives Trading Definition Document (2023 Edition)* (hereinafter referred to as the *Carbon Definition Document*) in December 2023. The *Carbon Definition Document*, based on the needs of China's market development and drawing on international experience, clarifies key trading elements such as the definitions of carbon derivatives and their underlying assets, types of carbon derivatives, and sources of reference prices, as well as clearing and settlement methods, disruption events, mechanism failures and their handling. At the same time, the *Carbon Definition Document* has broad applicability and can be used both in conjunction with the *NAFMII Master Agreement* and independently according to business needs.

9.6.2.2 CCNet e-CNY clearing and settlement service was launched

In June 2023, the SHCH launched the CCNet e-CNY clearing and settlement service, a digital settlement solution introduced in collaboration with banks and spot trading platforms, based on the business framework and practical experience of CCNet. This service is the first e-CNY application among financial infrastructures in the clearing and settlement field. It has already been implemented in pilot areas such as Shanghai, Suzhou, and Qingdao, with a cumulative clearing amount exceeding RMB 1 billion.

9.6.2.3 Market vitality was enhanced and low-carbon transformation of the real economy was advanced through carbon finance innovation

The SHCH continued to promote services for both national and local carbon markets. In early 2023, against the backdrop of the CSRC's approval of six new securities companies for proprietary carbon emissions trading, the SHCH supported Orient Securities, Hwabao Securities, and China Securities in participating in the SHEAF CCP clearing business and promoted the first execution of physical delivery in the domestic power industry by Ningneng Power under Ningbo Energy Group.

9.6.2.4 Development of a comprehensive service platform for commodity derivatives was underway

In response to the pressing demands of market participants, the SHCH made active efforts to build a comprehensive service platform for commodity derivatives building on its established risk management and clearing and settlement system. The platform, designed for market participants such as brokerage companies, dealers, forward quotation providers, and index providers, is a digital, Internet-based public service platform that integrates online broker operations, information collection and display functions. It aims to effectively enhance post-trade processing efficiency and information transparency, while supporting the sustainable development of the OTC commodity derivatives market.

BOX 12 SHCH launched CCNet e-CNY clearing and settlement service to empower the digital development of the real economy

In June 2023, the SHCH, based on the business framework and practical experience of CCNet, innovatively launched the CCNet e-CNY clearing and settlement service in collaboration with banks and commodity spot trading and settlement service platforms.

The service leverages the e-CNY's security, convenience, settlement-upon-payment, and controllable anonymity features to develop combinable smart contracts, thus improving the efficiency and security of commodity transaction settlement. It also explores extending *the operating hours of CCNet, providing 24/7 support to meet the business needs of enterprises, and aims to expand the application of e-CNY in large-scale corporate transactions.*

The service is the first e-CNY application among financial infrastructure in the clearing and settlement field. It is currently being implemented in pilot areas such as Shanghai, Suzhou, and Qingdao. Since the service was launched, the first batch of participating institutions, including the ICBC, the ABC, the BOC, the CCB, the BOCOM, the SPDB, the Industrial Bank (IB), Huaxia Bank, and China Zheshang Bank (CZBank), has provided services to over 50 corporate clients from four spot trading platforms, namely Zhangjiagang Freetrade Science & Technology Group Co., Ltd., SMM Trading Center Co., Ltd., Shandong International Commodity Exchange Co., Ltd., and Shanghai International Cotton Exchange. The service covers products such as ethylene glycol, steel rebar, aluminum ingots, Thai mixed rubber, and electrolytic copper. A total of 135 spot transactions have been cleared, with the cumulative clearing amount exceeding RMB 1 billion. Among these spot trading platforms, SMM Trading Center and Shanghai International Cotton Exchange, both located within the China (Shanghai) Pilot Free Trade Zone, were the first to commence operations.

Moving forward, the SHCH will collaborate with various market participants to steadily promote the development of the e-CNY clearing and settlement service and drive innovation in its application scenarios.

Appendix I Chronicle of China's Financial Development, 2023

On January 1st, the Administrative *Measures for the Acceptance, Discount and Central Bank Discount of Commercial Drafts* took effect.

On January 4th, Standard Chartered Bank (China) became the first foreign-funded bank to participate in treasury bond futures trading.

On January 19th, the CFFEX issued the supplementary lists of general market makers and prospective market makers for CSI 300 and CSI 1000 stock index options as well as general market makers of 2-year, 5-year and 10-year treasury bond futures.

On January 19th, the SSE, the SZSE and the CSDC issued the supporting rules for the optimization of the trading calendar of Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect, laying a solid institutional foundation for the optimization of the Hong Kong Stock Connect trading calendar.

On February 1st, the CSRC solicited public opinions on the draft of major institutional rules related to the comprehensive implementation of the stock issuance registration system, including the *Measures for the Administration of Registration of Initial Public Offerings* and the *Measures for the Administration of Registration of Securities Issuance by Listed Companies*.

On February 3rd, the SSE launched the bond market-making service.

On February 6th, the SZSE initiated the bond market-making service.

On February 17th, the SCRC issued 57 rules on the comprehensive implementation of the stock issuance registration system, and 108 supporting rules from the stock exchanges, National Equities Exchange and Quotations, CSDC, China Securities Finance Corporation Limited, and Securities Association of China were issued simultaneously.

On February 17th, the CSRS and the PBOC issued the *Interim Regulations on the Supervision of Important Money Market Funds* to strengthen the regulation of money market funds, effectively prevent and control risks, and protect the legitimate rights and interests of fund investors.

On February 23rd, the NAFMII issued the *Rules for Determining Credit Events in Credit Risk Mitigation Instrument Transactions in China's Interbank Market* to improve the supporting mechanism for credit risk mitigation tools and promote fairness, transparency and efficiency in the decision-making of credit events.

On February 27th, the CCDC supports the launch of the first bond as a futures margin service with the GFE.

On March 1st, five general market makers of CSI 300 and CSI 1000 stock index options, including the CICC, launched market-making transactions, which was the first time that general market makers had been introduced and market-making business had been launched in the stock index options market. Additionally, the hierarchical management mechanism of stock index options market makers of the CFFEX was fully implemented.

On March 3rd, the SSE and the SZSE issued the *Measures for the Implementation of Shanghai-Hong Kong Stock Connect (Revised in 2023)* and the *Measures for the Implementation of Shenzhen-Hong Kong Stock Connect (Revised in 2023)* to further expand the scope of stock connect.

On March 17th, the *Specification for Data Collection of Bond Price Index Products* was issued, filling the gap in domestic standards in related fields.

On March 20th, the SHCH launched the CCP clearing for G10 currency pair transactions, to provide efficient and stable foreign exchange transaction clearing services for China's interbank foreign exchange market.

On March 29th, the CSRC issued new *Measures for the Administration of Futures Exchanges* to improve the supervision and administration of futures exchanges, clarify the responsibilities of futures exchanges, maintain the order of the futures market, and promote the positive and steady development of the futures market.

On March 31st, the ChinaBond Index obtained independent verification of the IOSCO principles, and the standardized development and quality assurance of index business were advanced continuously, thus promoting the international application of the RMB bond index.

On April 10th, the listing ceremony of the first batch of enterprises under the registration-based system on the main boards of the SSE and the SZSE was held, marking the full implementation of the reform of the registration-based stock issuance system.

On April 12th, the China Treasury Bond Futures Yield Index Series, one of China's first batch of commercialized treasury bond futures yield indices, jointly compiled by the CFFEX and China Commodity Indices Co. Ltd., was issued.

On April 14th, the CCDC successfully supported the Bank of Ningbo in issuing RMB 10 billion of financial bonds through the blockchain bookkeeping and filing system for the first time and made innovative use of advanced digital means to further improve the transparency and efficiency of information issuance.

On April 17th, "Yulan Bonds" were included in the scope of qualified collateral for the tripartite collateral management business of Euroclear Bank.

On April 20th, the NAFMII issued the *Rules for Businesses within the Duration of Debt Financing Instruments of Non-financial Enterprises in the Interbank Bond Market* to optimize and improve the working mechanism for the duration of debt financing instruments and promote the high-quality development of the reform and opening-up of the interbank bond market.

On April 21st, the listing of 30-year treasury bond futures on the CFFEX marked the completion of the basic construction of a treasury bond futures product system covering all key nodes of the benchmark yield curve.

On April 21st, the CSRC and the NDRC jointly issued the *Announcement on the Work Arrangements of the Transition Period for the Transfer of Corporate Bond Issuance Review Responsibilities*. To ensure the orderly connection and smooth transition of the transfer of corporate bond issuance review responsibilities, a transition period of six months from the date of issuance of this announcement was set.

On April 24th, the optimization mechanism of the trading calendar for Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect was launched and implemented to further enhance the efficiency of cross-border investment.

On April 28th, the PBOC issued the *Interim Measures for the Administration of the Mutual Access Between the Mainland and Hong Kong Interest Rate Swap Markets*.

On May 15th, the CCDC released the *CCDC PFMI Information Disclosure & Self-Assessment(2022)*.

On May 15th, the CFETS, the SHCH and the OTC Clearing Hong Kong Limited jointly launched the "Northbound Bond Connect Swap Connect" business.

On May 30th, the SHCH supported the BOC in successfully issuing the world's first RMB "Yulan Bonds".

On June 5th, the SSE STAR 50 ETF options were listed smoothly.

On June 5th, the SHCH began to support the use of CFXPS for USD funds settlement in centralized bilateral clearing services of foreign exchange transactions.

On June 8th, the NFRA and Shanghai Municipal People's Government jointly issued the *Detailed Implementation Rules on Advancing the Development of Shanghai into an International Reinsurance Center*, and the Shanghai International Reinsurance Exchange was launched.

On June 9th, the PBOC solicited public opinions on the *Measures for the Administration of Bond Valuation Services in the Interbank Bond Market*.

On June 13th, Pengyang 30-Year Treasury Bond ETF was listed on the SSE, which tracks the ChinaBond-30-Year Treasury Bond Index and was the first ultra-long-term bond ETF in the whole market.

On June 20th, the NAFMII issued the *Notice on Matters Concerning Further Strengthening the Regulation of Issuance Business in the Interbank Bond Market*.

On June 26th, the SHCH launched the CCNet e-CNY clearing and settlement service.

On June 29th, the SGE held a meeting on leasing business.

On June 30th, the online one-stop trading and settlement failure reporting service for the Northbound Bond Connect Bond Connect jointly provided by the CFETS, the CCDC, the SHCH and the Bond Connect Company Limited was launched.

On July 3rd, the PBOC issued the *Interim Measures for the Administration of Gold Leasing Business* to strengthen the administration of the gold market and promote the standardized development of gold leasing business, thereby better serving the real economy.

On July 5th, the SHCH began to support banks offering OTC bond services in launching OTC sales and trading businesses of existing commercial bank financial bonds for financial institutional investors.

On July 6th, the SHCH launched the first FATCA (Foreign Account Tax Compliance Act) related taxation services for "Southbound" bonds.

On July 9th, the State Council issued the *Regulations on the Supervision and Administration of Private Investment Funds*, with a focus on promoting law-based and standardized regulation of the business activities of private investment funds, aiming to facilitate the standardized and sound development of the private investment fund industry, better protect the legitimate rights and interests of investors, and further support the development of the real economy and advance sci-tech innovation.

On July 14th, the CPC Central Committee and the State Council issued the *Opinions on Promoting the Development and Growth of the Private Economy*, emphasizing the need to strengthen the information disclosure of commercial drafts and improve the credit constraint mechanism in the bill market.

On July 17th, the CFETS and the SHCH launched services related to the transfer of contracts for the centralized clearing of RMB interest rate swaps.

On July 18th, the SHCH began to support the ADBC in issuing OTC bond products to financial institutional investors for the first time.

On July 18th, the SZSE issued the *Interim Measures for the Listing and Trading of Depositary Receipts on the Interconnectivity between Shenzhen Stock Exchange and Overseas Stock Exchanges (Revised in 2023)* to better regulate the overseas issuance of global depositary receipts by domestic listed companies that can be converted into domestic underlying stocks.

On July 21st, the SSE launched its Sci-Tech Innovation Board 100 Index to implement the strategy of high-level self-reliance and strength in science and technology.

On July 21st, the SSE and SZSE issued the *Measures for the Implementation of Quality Evaluation on Sponsor Institutions Oriented by the Quality of Listed Companies (Trial)*.

On July 25th, the CCDC issued the *Guidelines for ChinaBond Market Entry Services* (2023) in both Chinese and English. The guidelines cover the basic introduction of China's bond market, requirements for foreign investors' entry into the market, transactions and settlement, transfer of funds and bonds, and other issues.

On July 25th, the PBOC issued the *Paper Market—Basic Data Elements of Commercial Paper* as a financial industry standard for the paper market, which stipulates the definition, presentation format and category grouping of basic data elements of commercial paper.

On August 1st, the CSRC issued the *Measures for the Administration of Independent Directors of Listed Companies* to regulate the behavior of independent directors, give full play to the role of independent directors in the management of listed companies, and improve the quality of listed companies.

On August 1st, as an authorized participant, the CFETS was directly connected to the domestic foreign currency payment system to carry out foreign currency transaction information transmission business, covering all eight foreign currencies in the domestic foreign currency payment system such as the US dollar, realizing direct processing of foreign currency lending transaction settlement, and shortening the settlement period of foreign currency transaction from at least one trading day to as soon as half an hour. It greatly reduces the time delay of foreign currency settlement and the risk of funds in transit.

On August 4th, the MOF issued the Administrative *Measures for the Registration, Custody and Settlement of Government Bonds* to regulate the registration, custody and settlement of government bonds, protect the legitimate rights and interests of investors, strengthen risk prevention in the government bond market, and promote the efficient and steady operation of the market.

On August 4th, the PBOC solicited public opinions on the *Notice on Matters Related to OTC Business in the Interbank Bond Market (Exposure Draft)*.

On August 6th, the *Specification of Description for Bond Pricing Indicator Products* was issued as a national financial standard.

On August 15th, the foreign currency transaction information transmission service of the CFETS began to support RMB foreign exchange and foreign currency pair transactions, and the transaction settlement direct processing service was further expanded to all business varieties in the interbank foreign exchange market.

On September 1st, the SSE and the SZSE issued two notices on procedural trading reporting and management, aiming to establish a procedural trading report system and regulatory arrangements, and promote the standardized development of procedural trading.

On September 11th, the NAFMII issued the *Notice on Matters Concerning Further Regulating Money Brokerage Quotations and Data Display in the Interbank Market*.

On September 19th, the NAFMII launched a pilot program to optimize the pricing and placement of overseas institutional bonds.

On September 25th, the State Council issued the *Implementation Opinions on Promoting the High-quality Development of Inclusive Finance*, proposing to standardize the development of MSBs' supply chain bills and other businesses and use central bank discounts and other facilities to expand the coverage of inclusive financial services.

On September 28th, the PBOC, the NFRA, the CSRC, the SAFE, the Hong Kong Monetary Authority (HKMA), the Securities and Futures Commission (SFC) and the Monetary Authority of Macao (AMCM) decided to further optimize the pilot program of Cross-boundary Wealth Management Connect to improve the connectivity among financial markets in the Guangdong-Hong Kong-Macao Greater Bay Area.

On October 7th, the PBOC and the NFRA issued the *Measures for the Assessment of Systemically Important Insurers* to improve the regulatory framework of China's systemically important financial institutions and establish an evaluation and identification mechanism for systemically important insurance companies.

On October 8th, the SHCH successfully supported relevant tax authorities to implement tax exemption policy for the first time through "Yulan Bond".

On October 10th, the first batch of foreign investors participated in the standard bond forward business, and the opening-up of the interbank derivatives market made steady progress.

On October 16th, RMB NRA accounts were launched on the SGE international board.

On October 20th, the CSRC issued and implemented a new version of the Administrative *Measures for the Issuance and Trading of Corporate Bonds* to regulate the issuance, trading or transfer of corporate bonds (including enterprise bonds) and protect the legitimate rights and interests of investors and the public.

On October 20th, the SSE and the SZSE issued business rules for corporate bonds (including enterprise bonds), unified business rules for corporate bonds and enterprise bonds, and made proper arrangements for undertaking enterprise bonds.

On October 20th, the CFFE issued the revised *2-year Treasury Bond Futures Contract* and its detailed rules.

On October 25th, the CCDC and the International Capital Market Association (ICMA) issued the joint White Paper: *Use of RMB-denominated Bonds as Collateral for Global Repo Transactions*.

On October 25th, the ChinaBond Global Gateway was officially launched. The website displays information related to foreign institutional investors' participation in China's bond market in English, providing a one-stop information service platform for overseas customers to understand China's bond market.

From October 25th to 27th, the Shanghai International Reinsurance Conference 2023 was successfully held. At the event, the Shanghai International Reinsurance Exchange was officially launched, and four supporting rules and the international reinsurance business platform were unveiled, to boost the construction of the Shanghai International Reinsurance Center.

From October 30th to 31st, the Central Financial Work Conference was held in Beijing. It put forward the goal of "accelerating efforts to build up China's strength in finance", and emphasized the need to promote China's high-quality financial development, providing vigorous support for the great cause of building China into a great country in all respects and advancing national rejuvenation on all fronts by pursuing Chinese modernization.

On October 30th, the SHCH began to support the use of CFXPS for USD fund settlement in CCP clearing services of RMB/FX transactions.

On October 30th, the SHCH began to support the CEXIM's first OTC bond product offering to financial institutional investors.

On November 2nd, the interbank bond market launched the regional market-making mechanism to improve the organization and management of multi-level market makers.

On November 24th, the annual write-off amount of interest rate swaps exceeded RMB 10 trillion for the first time, and the scale of write-off hit a record high.

On November 28th, the CFETS launched a standard interest rate swap contract linked to PrimeNCD, an interest rate metric for the issuance of three-month NCDs in major national banks, to optimize the clearing service of standard interest rate swap transactions.

On December 1st, the PBOC issued the *Measures for the Administration of Bond Valuation Services in the Interbank Bond Market* to regulate bond valuation services in the interbank bond market, protect the legitimate rights and interests of investors, and promote the steady and sound development of the bond market.

On December 12th, the CFETS and the SHCH launched the central counterparty bond lending and borrowing services to prevent bond settlement risks.

On December 19th, the first cross-border gold trading, settled in e-CNY, was completed.

On December 25th, the NAFMII issued the *Procedures for the Holder Meeting of Non-financial Enterprise Debt Financing Instruments in the Interbank Bond Market* and the *Guidelines for the Operation of Soliciting Consent of Debt Financing Instruments of Non-Financial Enterprises in the Interbank Bond Market* to further optimize the investor protection mechanism and better play the important role of the mechanism of holders' meeting in the disposal of bond risks and defaults.

On December 31st, the gold trading repository and the gold asset management product registration and custody system were upgraded.

Appendix II China Financial Market Statistics

Table 1 Major macroeconomic and financial

Item	2004	2005	2006	2007	2008	2009	2010	2011	2012
Gross domestic product (GDP) / RMB 100 million	159,878	184,937	216,314	265,810	314,045	340,903	408,903	484,124	534,123
Growth rate / %	10.1	10.4	12.7	14.2	9.6	9.2	10.6	9.5	7.7
Exports & imports / USD 100 million, RMB 100 million	11,547	14,221	17,607	21,738	25,616	22,073	201,723	236,402	244,160
Growth rate / %	35.7	23.2	23.8	23.5	17.8	-13.9	34.7	17.2	3.2
Exports / USD 100 million, RMB 100 million	5,934	7,620	9,690	12,205	14,307	12,016	107,023	123,241	129,359
Imports / USD 100 million, RMB 100 million	5,614	6,601	7,915	9,561	11,326	10,059	94,700	113,161	114,801
Foreign exchange reserves / USD 100 million	6,099	8,189	10,663	15,282	19,460	23,992	28,473	31,811	33,116
Foreign direct investment / USD 100 million	606	603	694.7	747.7	924	900	1,057	1,160	1,117
Fiscal revenue / RMB 100 million	26,355.9	31,628	38,760.2	51,304	61,330	68,518	83,102	103,874	117,254
Fiscal expenditure / RMB 100 million	28,360.8	33,708.1	40,222.7	49,565.4	62,593	76,300	89,874	109,248	125,953
Deficit/surplus / RMB 100 million	-2,004.9	-2,080.1	-1,462.5	1,738.6	-1,263	-7,782	-6,772	-5,374	-8,699
Money supply (M2) / RMB 100 million	254,107	296,040.1	345,577.9	403,401.3	475,166.6	606,223.6	725,851.79	851,590.9	974,148.8
Growth rate / %	14.9	16.5	16.7	16.7	17.8	27.6	19.7	13.5	14.4
Money supply (M1) / RMB 100 million	95,969.7	107,279.9	126,028.1	152,519.2	166,217.1	220,004.5	266,621.54	289,847.7	308,664.2
Growth rate / %	14.1	11.8	17.5	21.0	9.0	32.4	21.2	7.9	6.5
Money supply (M0) / RMB 100 million	21,468.3	24,032.8	27,072.6	30,334.3	34,218.96	38,245.97	44,628.17	50,748.46	54,659.77
Growth rate / %	8.7	11.9	12.6	12	12.8	11.8	16.7	13.8	7.7
Per capita disposable income of urban residents / RMB	9,422	10,493	11,759	13,786	15,781	17,175	19,109	21,810	24,565
Real growth rate / %	7.7	9.6	10.4	12.2	8.4	9.8	7.8	8.4	12.6
Net income of rural residents / RMB	2,936	3,255	3,587	4,140	4,761	5,153	5,919	6,977	7,917
Real growth rate / %	6.8	6.2	7.4	9.5	8	8.5	10.9	11.4	13.5
Total deposits with financial institutions / RMB 100 million	241,424.3	300,208.6	348,015.6	401,051.4	478,444.2	612,005.1	733,382.03	826,701.35	943,102.27
Growth rate / %	16.0	24.3	15.9	15.2	19.3	27.9	19.8	12.7	14.1
Total loans by financial institutions / RMB 100 million	178,197.8	206,838.5	238,279.8	277,746.5	320,048.7	425,622.6	509,225.95	581,892.5	672,874.61
Growth rate / %	12.1	16.1	15.2	16.6	15.2	33.0	19.6	14.3	15.6
Consumer Price Index (CPI) / %	3.9	1.8	1.5	4.8	5.9	-0.7	3.3	5.4	2.6

Sources: NBS, PBOC, and MOF.

Notes: 1. Data of previous years may have been adjusted according to latest statistical releases.

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

indicators, 2004—2023 (year-end balance)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
595,244	643,974	689,052	743,585	832,036	919,281	990,865	1,015,986	1,143,670	1,210,207	1,260,582
7.8	7.3	7	6.8	6.9	6.7	6.1	2.3	8.1	3	5.2
258,168	264,242	245,503	243,386	278,099	305,010	315,505	321,557	391,009	409,380	417,568
5.7	2.39	-7	-0.9	14.2	9.7	3.4	1.9	21.4	7.7	0.2
137,131	143,884	141,167	138,419	153,309	164,129	172,342	179,326	217,348	239,654	237,726
121,037	120,358	104,336	104,967	124,790	140,881	143,162	142,231	173,661	181,024	179,842
38,213	38,430	33,304	30,105	31,399	30,727	31,079	32,165.22	32,501.66	31,277.00	32,380
1,176	1,196	1,263	1,260	1,310	1,350	1,381	1,444	1,735	1,891	1,633
129,210	140,370	152,269	159,605	172,593	183,360	190,382	182,895	202,539	203,703	216,784
140,213	151,662	175,768	188,793	203,330	220,906	238,874	245,588	236,233	260,609	274,574
-11,003	-11,312	-23,499	-29,188	-30,734	-37,546	-48,492	-62,693	-33,694	-56,906	-57,790
1,106,524.98	1,228,374.81	1,392,278.11	1,550,066.67	1,676,768.54	1,826,744.22	1,986,488.82	2,186,795.89	2,382,899.56	2,664,000.00	2,922,713.33
13.6	11	13.3	11.4	8.2	8.1	8.7	10.1	9	11.8	9.2
337,291.05	348,056.41	400,953.44	486,557.24	543,790.15	551,685.91	576,009.15	625,580.99	647,443.35	672,000.00	680,542.52
9.3	3.2	15.2	21.4	11.8	1.5	4.4	8.6	3.5	3.7	1.3
58,574.44	60,259.53	63,216.58	68,303.87	70,645.6	73,208.4	77,819.47	84,314.53	90,825.15	105,000.00	113,444.64
7.1	2.9	4.9	8.1	3.4	3.6	5.4	9.2	7.7	15.3	8.3
26,955	28,844	31,195	33,616	36,396	39,251	42,359	43,834	47,412	49,283	51,821
9.7	6.8	6.6	5.6	8.3	7.8	5	3.5	8.2	3.9	4.8
8,896	9,892	11,422	12,363	13,432	14,617	16,021	17,131	18,931	20,133	21,691
9.3	11.2	7.5	6.2	7.3	8.8	9.6	6.9	10.5	6.3	7.6
1,070,587.72	1,173,734.59	1,397,752.11	1,555,247.07	1,692,727.15	1,825,158.24	1,981,642.58	2,183,744.07	2,386,062.38	2,644,472.28	2,899,132.22
13.5	9.6	19.1	11.3	8.8	7.8	8.6	10.2	9.3	10.8	9.6
766,326.64	867,867.89	993,459.69	1,120,551.79	1,256,073.74	1,417,516.44	1,586,020.56	1,784,033.85	1,985,107.52	2,191,028.57	2,422,395.67
13.9	13.3	14.5	12.8	12.1	12.9	11.9	12.5	11.3	10.4	10.6
2.6	2	1.4	2	1.6	2.1	2.9	2.5	0.9	2	0.2

Table 2 Composition and growth of RMB and foreign

Item	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total deposits with financial institutions	241,424.3	300,208.6	348,015.6	401,051.4	478,444.21	612,005.1	733,382.03	826,701.35	943,102.27
YoY growth	16.0	24.3	15.9	15.2	19.3	27.9	19.8	12.7	14.1
Of which: Deposits of urban & rural residents	119,555.4	147,053.7	166,616.2	176,213.3	221,503.47	264,756.9	307,166.39	357,901.58	415,549.87
YoY growth	15.4	23.0	13.3	5.8	25.7	19.5	16.0	16.5	16.1
Corporate deposits	84,669.5	101,750.6	118,851.7	144,814.1	164,385.79	224,360	252,960.27	423,086.61	478,730.2
YoY growth	16.8	20.2	16.8	21.8	13.5	36.5	12.7	67.3	13.2
Total loans by financial institutions	178,197.8	206,838.5	238,279.8	277,746.5	320,048.68	425,622.6	509,225.95	581,892.5	672,874.61
YoY growth	12.1	16.1	15.2	16.6	15.2	33.0	19.6	14.3	15.6
Of which: Short-term loans	90,808.3	91,157.5	101,698.2	118,898	128,571.47	151,390.7	171,236.64	217,480.1	268,152.19
YoY growth	3.9	0.4	11.6	16.9	8.1	17.7	13.11	27	23.3
Medium and long-term loans	81,010.1	92,940.5	113,009.8	138,581	164,160.42	235,591.3	305,127.55	333,746.51	363,894.22
YoY growth	20.5	14.7	21.6	22.6	18.5	43.5	29.5	9.4	9

Source: PBOC.

currency deposits and loans, 2004—2023 (year-end balance)

Units: RMB 100 million, %

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
1,070,587.72	1,173,734.59	1,397,752.11	1,555,247.07	1,692,727.15	1,825,158.24	1,981,642.58	2,183,744.07	2,386,062.38	2,644,472.28	2,899,132.22
13.5	9.6	19.1	11.3	8.8	7.8	8.6	10.2	9.3	10.8	9.6
471,090.18	512,790.14	551,928.92	606,522.23	651,983.38	724,438.51	821,296.39	934,383.14	1,033,117.54	1,212,109.95	1,378,765.47
13.4	8.9	7.6	9.9	7.5	11.1	13.4	13.8	10.6	17.3	13.7
541,793.87	591,069.28	455,208.83	530,895.41	571,640.83	589,104.74	621,147.01	688,218.21	730,136.82	779,397.81	817,958.95
13.2	9.1	-22.9	16.6	7.7	3.1	5.4	10.8	6.1	6.7	4.9
766,326.64	867,867.89	993,459.69	1,120,551.79	1,256,073.74	1,417,516.44	1,586,020.56	1,784,033.85	1,985,107.52	2,191,028.57	2,422,395.67
13.9	13.3	14.5	12.8	12.1	12.9	11.9	12.5	11.3	10.4	10.6
311,771.97	336,371.27	359,190.66	371,286.36	405,492.17	432,776.46	462,715.17	487,247.04	516,011.42	554,378.00	614,668.41
16.3	7.9	6.8	3.4	9.2	6.7	6.9	5.3	5.9	7.4	10.9
410,345.5	471,818.36	537,832.55	634,209.87	750,130.12	854,188.75	971,567.92	1,137,402.06	1,291,006.29	1,427,667.71	1,591,789.35
12.8	15	14	17.9	18.3	13.9	13.7	17.1	13.5	10.6	11.5

Table 3 Outstanding loans, outstanding bonds and stock market capitalization as percentage of GDP, 2006—2023

Units: RMB 100 million, %

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	478,978	70.8	531,304.2	78.5
2016	744,127	1,120,552	151	636,614	85.6	508,245.11	68.3
2017	827,122	1,256,074	152	740,098	89.5	567,475.37	68.6
2018	900,309	1,417,516	157	870,016	96.6	434,924	48.3
2019	990,865	1,586,021	160	991,043	100	483,461.26	48.8
2020	1,015,986	1,784,034	175	1,167,200	115	797,238	78.5
2021	1,143,670	1,985,108	174	1,331,106	116	916,088	80.1
2022	1,210,207	2,191,029	181	1,445,404	119	788,006	65.1
2023	1,260,582	2,422,396	192	1,576,740	125	773,131	61.3

Sources: PBOC and CSRC.

Notes: 1. Outstanding loan refers to the outstanding amount of all RMB and foreign currency loans of financial institutions.

2. Outstanding bonds include bonds in custody in the interbank market and on the stock exchange.

Table 4 Composition of aggregate financing to the real economy (flow), 2010—2023

Unit: RMB 1 trillion

Year	Flow of the incremental all-system aggregate financing	RMB loans	Foreign currency loans	Entrusted loans	Trust loans	Undiscounted bankers' 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
2016	17.8	12.4	-0.56	2.18	0.86	-1.95	3	1.24	0.6
2017	19.44	13.84	0.002	0.77	2.26	0.54	0.45	0.87	0.71
2018	19.26	15.67	-0.42	-1.61	-0.69	-0.63	2.49	0.36	4.1
2019	25.67	16.88	-0.13	-0.94	-0.35	-0.48	3.34	0.35	6.18
2020	34.86	20.03	0.15	-0.40	-1.10	0.17	4.45	0.89	10.66
2021	31.35	19.94	0.17	-0.17	-2.01	-0.49	3.29	1.24	8.32
2022	32.01	20.91	-0.53	0.36	-0.60	-0.34	2.05	1.18	7.96
2023	35.58	22.22	-0.22	0.02	0.16	-0.18	1.63	0.79	10.07

Source: PBOC.

Table 5 Interbank lending and bond repo trading, 1997—2023

Unit: RMB 100 million

Year	Interbank lending	Pledged repo	Outright repo
1997	8,298	310	—
1998	1,978	1,021	—
1999	3,291	3,957	—
2000	6,728	15,785	—
2001	8,082	40,133	—
2002	12,107	101,885	—
2003	24,113	117,203	—
2004	14,556	93,105	1,263
2005	12,783	156,784	2,223
2006	21,503	263,021	2,892
2007	106,466	440,672	7,253
2008	150,492	563,830	17,376
2009	193,505	677,007	25,891
2010	278,684	846,533	29,402
2011	334,412	966,650	27,885
2012	467,044	1,366,174	50,966
2013	355,190	1,519,757	61,882
2014	376,626	2,124,191	120,035
2015	642,135	4,324,109	253,528
2016	959,131	5,682,693	330,335
2017	789,811	5,882,607	281,077
2018	1,392,987	7,086,726	140,036
2019	1,516,372	8,100,887	96,427
2020	1,471,425	9,527,158	70,357
2021	1,188,208	10,404,513	47,423
2022	1,468,216	13,745,849	55,697
2023	1,429,636	16,688,048	54,211

Source: CFETS.

Table 6 Change in the number of interbank funding market participants, 2000—2023

Year	Banks	Securities companies	Insurance companies	Trust companies	Finance companies	Leasing companies	Rural credit cooperatives	City credit cooperatives	Asset management companies	Auto finance companies	Consumer finance companies	Others	Total
2000	232	14	—	—	20	—	148	—	—	—	—	3	417
2001	246	18	—	—	25	—	198	—	—	—	—	3	490
2002	261	41	—	—	25	—	202	4	—	—	—	3	536
2003	289	56	—	—	32	—	229	10	—	—	—	1	617
2004	309	64	—	—	35	—	236	11	—	—	—	1	656
2005	323	66	—	—	38	—	239	12	—	—	—	1	679
2006	339	53	—	—	46	—	250	15	—	—	—	0	703
2007	326	56	—	3	49	—	267	16	—	—	—	0	717
2008	340	58	—	16	55	4	298	13	2	2	—	0	788
2009	348	65	6	26	68	6	320	9	3	3	—	0	854
2010	347	68	6	30	72	11	338	8	3	5	—	0	888
2011	347	70	7	38	77	11	369	7	4	6	—	1	937
2012	359	77	7	39	81	16	422	7	5	8	—	1	1,022
2013	368	82	9	45	98	16	482	7	5	9	—	1	1,122
2014	349	87	10	54	129	17	547	7	5	13	—	1	1,219
2015	355	90	15	57	154	20	661	7	5	16	—	2	1,382
2016	390	95	31	62	180	24	916	0	8	17	—	2	1,725
2017	497	96	43	62	213	40	973	0	8	21	3	2	1,958
2018	573	97	52	62	226	54	1,017	0	8	23	8	3	2,123
2019	1,338	102	53	66	236	66	282	0	9	24	13	1	2,190
2020	1,432	102	53	66	238	66	266	0	9	24	20	2	2,278
2021	1,510	104	60	66	245	66	237	0	9	24	22	2	2,345
2022	1,585	106	60	66	243	66	244	0	9	24	26	3	2,432
2023	1,641	106	59	66	237	67	261	0	10	24	29	3	2,503

Source: NIFC.

Table 7 Trading in the bill market, 2017—2023

Unit: RMB 1 trillion

Year	Trading volume of acceptances	Trading volume of discounts	Trading volume of interbank discounts	Trading volume of repurchases
2017	14.63	6.95	44.48	6.92
2018	18.27	9.94	34.63	7.12
2019	20.38	12.46	38.82	12.12
2020	22.09	13.41	44.11	19.98
2021	24.15	15.02	46.94	22.98
2022	27.39	19.46	58.2	29.9
2023	31.35	23.82	73.38	31.50

Table 8 Spot trading and futures trading in the bond market, 2006—2023

Units: RMB 100 million, %

Year	Interbank bond market				Exchange market			
	Spot trading	YoY growth	OTC market trading	YoY growth	Spot trading	YoY growth	Treasury bond futures market	YoY growth
2006	102,558.6	70.55	42.8	-34.86	1,977.83	—	—	—
2007	156,038.21	52.15	35.7	-16.59	2,051.75	3.74	—	—
2008	371,082.7	137.82	30.4	-14.85	4,294.73	109.32	—	—
2009	472,646.43	27.37	62.8	106.58	4,659.86	8.5	—	—
2010	640,418.98	35.5	41.7	-33.6	5,832.26	25.16	—	—
2011	636,422.9	-0.62	27.89	-33.12	6,839.9	17.28	—	—
2012	751,952.83	18.15	14.99	-46.25	9,852.7	44.05	—	—
2013	416,106.44	-44.66	18.72	24.88	17,387.6	76.48	3,063.89	—
2014	403,565.2	-3	71.7	283.01	27,874.4	60.31	8,785.17	186.73
2015	867,370.1	114.9	109.3	52.4	33,994.6	22	60,106.8	584.18
2016	1,270,918.3	46.5	87.6	-19.8	51,269.9	50.8	89,013.6	48.09
2017	1,028,351.7	-19.1	245	179.7	55,597.0	8.4	140,849.1	58.23
2018	1,507,367.9	46.6	1,320.3	438.9	59,282.6	6.6	103,819.3	-26.77
2019	2,087,499.4	38.5	2,528.6	91.5	83,530.2	40.9	148,158.3	40.71
2020	2,328,245.2	11.5	3,273.6	28	201,785.8	141.6	263,689.3	77.98
2021	2,144,508.5	-7.9	4,130.3	26.2	289,275.4	43.4	275,130.2	4.39
2022	2,712,353.5	26.5	2,105.7	-56.0	381,136.3	31.8	464,165.3	68.71
2023	3,073,067.2	13.3	1,974	-6.25	464,479.4	21.9	523,683.9	12.82

Source: PBOC.

Table 9 Spot trading in the bond market, 2023

Units: RMB 100 million, %

Month	Interbank bond market					Exchange market		
	Spot trading	YoY growth	Interbank bond aggregate index	OTC market trading	YoY growth	Spot trading	YoY growth	SSE corporate bond index
1	159,591.8	-23.6	119.24	150.8	-32.1	21,272.0	-8.9	227.47
2	216,718.2	25.1	119.19	221.7	58.4	30,650.9	49.4	227.77
3	284,537.5	20.9	119.50	275.0	-3.5	36,074.2	-1.1	228.39
4	244,283.7	20.5	119.92	113.9	-18.5	32,206.6	0.2	229.02
5	261,643.1	32.2	120.36	155.8	9.9	33,684.7	-12.7	229.61
6	270,399.0	20.0	120.57	189.2	-11.2	39,465.4	-16.6	230.34
7	273,713.7	16.3	120.72	183.2	-13.3	44,653.9	20.8	230.95
8	306,273.3	8.4	121.20	141.8	-38.5	57,117.1	80.8	231.77
9	273,548.9	10.7	120.44	154.2	-6.2	43,976.3	89.6	232.49
10	216,629.7	10.4	120.07	108.1	-3.6	35,643.1	78.7	232.79
11	283,578.5	-1.0	120.23	146.3	-1.3	45,687.0	30.3	233.73
12	282,149.9	27.5	121.16	133.5	36.8	44,038.5	22.4	234.49
Total	3,073,067.2	13.3	—	1,947	-6.25	464,479.4	21.87	—

Sources: PBOC, CCDC, SSE, and CFETS.

Note: The interbank bond aggregate index refers to the month-end close value of ChinaBond interbank Aggregate Index. SSE corporate bond index refers to the month-end close value of the SSE Corporate Bond Index (full price).

Table 10 Bond market issuance, 2004—2023

Unit: RMB 100 million

Year	Government credit bonds			Government-backed agency bonds	Central bank bills	Financial bonds				NCDs	Corporate credit bonds						ABS	International institutional bonds	Standardized note	Exchange fund notes	Debt financing plan of BFAE	Credit ABS	Total
	Treasury bonds	Local government bonds	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	Asset-backed notes (ABN)	Enterprise bonds	Corporate bonds	Exchange-based asset-backed securities (ABS)	Sub-total							
2004	7,318.8	0	7,318.8	0	17,037	4,348	0	748.8	5,096.8	—	0.0	–	326.0	209.0	–	535.0	—	–	–	–	—	—	29,987.6
2005	7,042	0	7,042	0	27,882	6,051.7	29	1,036.3	7,117	—	1,424.0	–	654.0	0.0	–	2,078.0	172.7	–	–	–	—	—	44,291.7
2006	8,883.3	0	8,883.3	0	36,574	8,980	0	525	9,505	—	2,919.5	–	995.0	142.9	–	4,057.4	280.0	–	–	–	—	—	59,299.7
2007	23,483.4	0	23,483.4	0	40,721	10,931.9	0	972.7	11,904.6	—	3,349.1	–	1,720.0	407.3	–	5,476.4	178.1	–	–	–	—	—	81,763.5
2008	8,546.3	0	8,546.3	0	42,960	10,809.3	0	974	11,783.3	—	6,075.5	–	2,367.0	976.5	–	9,419.0	302.0	–	–	–	—	—	73,010.6
2009	16,213.6	2,000	18,213.6	0	39,740	11,678.1	0	3,071	14,749.1	—	11,509.7	–	4,252.0	715.0	–	16,476.7	0.0	–	–	–	—	—	89,179.4
2010	17,778.2	2,000	19,778.2	1,090	46,608	13,192.7	0	979.5	14,172.2	—	11,863.0	–	3,627.0	1,320.3	–	16,810.3	0.0	–	–	–	—	—	98,458.7
2011	15,397.9	2,000	17,397.9	1,000	14,140	19,972.7	0	3,528.5	23,501.2	—	18,503.2	–	2,473.5	1,707.4	–	22,684.1	12.8	–	–	–	—	—	78,736.0
2012	14,360.4	2,500	16,860.4	1,500	0	21,399	561	4,233.7	26,193.7	—	26,547.2	–	6,499.3	2,722.8	–	35,769.3	224.4	–	–	–	—	—	80,547.8
2013	16,945	3,500	20,445	1,900	5,362	20,760.3	2,995.9	1,321	25,077.2	340	28,357.9	–	4,752.3	4,081.4	–	37,191.6	231.7	–	–	–	—	—	90,547.5
2014	17,047.3	4,000	21,047.3	2,100	0	22,900.5	4,246.9	5,459.5	32,606.9	8,985.6	41,217.6	–	6,952.0	3,483.8	–	51,653.4	3,220.6	–	–	–	—	—	119,613.8
2015	19,875.4	38,350.6	58,226	2,400	0	25,790.2	3,515.6	14,794.9	44,100.7	52,975.9	53,660.6	–	3,431.0	13,292.4	–	70,384.0	6,157.2	115	–	–	—	—	234,358.8
2016	29,457.7	60,428.4	89,886.1	2,250	0	33,529.7	1,178.6	12,717.9	47,426.2	129,931	50,297.9	–	5,917.7	25,770.0	–	81,985.6	8,647.0	1,330.4	–	–	—	—	361,456.3
2017	38,661.8	43,580.9	82,242.7	2,860	0	32,814.8	392	16,961	50,167.8	201,872.4	39,813.5	–	3,731.0	11,460.2	–	55,004.7	15,398.4	666	–	–	—	—	408,212.0
2018	35,411	41,651.7	77,062.6	2,530	0	33,681.8	1,425	18,302.2	53,409	210,832.4	57,915.9	–	2,404.8	16,336.7	–	76,657.4	18,187.5	898.6	–	–	–	—	439,577.5
2019	40,091	43,624.3	83,715.3	3,720	0	37,401	4,491	26,693.4	68,585.4	179,712.7	67,975.7	–	3,606.2	25,704.9	–	97,286.8	19,668.3	538.4	13.8	–	–	—	453,240.7
2020	70,173.3	64,438.1	134,611.4	–	0	51,517.2	7,983	33,343.6	92,843.8	189,719.8	78,848.7	5,107.9	5,508.7	34,439.3	14,634.4	138,538.9	–	586.5	61.2	1,450	7,512.3	7,880.3	573,204.2
2021	66,758.1	74,826.3	141,584.4	–	0	55,059.4	5,937	35,878.7	96,875.2	217,922.9	85,144.0	6,454.4	6,274.4	34,914.2	15,598.4	148,385.3	–	1,064.5	0.5	200	5,035.6	8,815.3	619,883.7
2022	96,322.7	73,555.8	169,878.5	–	0	58,433.4	3,988.3	35,089.5	97,511.2	205,120.3	83,428	4,624.3	6,191.3	31,542.5	11,912.1	137,698.1	–	830.7	0	860	3,281.3	3,345.4	618,525.6
2023	110,100.6	93,237.0	203,337.6	–	0	58,760.3	4,529.7	38,525.8	101,815.8	257,814.8	83,261.1	3,216.1	3,807.8	38,280.4	11,591.7	140,157.0	–	1,544.5	0	1,345	501.8	3,485.2	710,001.7

Source: PBOC.

Notes: 1. Treasury bonds include book-entry treasury bonds and electronic saving bonds.

2. Other financial bonds include interbank and exchange-traded financial bonds from 2015.

3. From 2015 to 2019, asset-backed securities (ABSs) include interbank credit ABS and exchange-based ABS.

4. Since 2020, for statistical purposes, government-backed agency bonds are included into enterprise bonds and exchange fund notes, asset-backed notes (ABNs) are separated from the debt financing instruments of non-financial enterprises, and exchange-based ABSs are included into corporate bonds.

5. International institutional bonds refer to bonds issued in China by overseas institutional legal persons, including sovereign institutions, quasi-sovereign institutions, and overseas financial and non-financial institutions.

Table 11 Bond custody in the bond market, 2006—2023

Unit: RMB 100 million

Year	Government credit bonds			Government-backed agency bonds and others	Central bank bills	Financial bonds				NCDs	Corporate credit bonds						ABS	International institutional bonds	Standardized note	Exchange fund notes	Debt financing plan of BFAE	Credit ABS	Interbank custody	Exchange custody	Total custody
	Treasury bonds	Local government bonds	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	Asset-backed notes (ABN)	Enterprise bonds	Corporate bonds	Exchange-based asset-backed securities (ABS)	Sub-total									
2006	29,048	0	29,048	30	32,300	22,836	0	2,552	25,388	—	2,667	–	2,832	288	–	5,786	188	–	–	–	–	–	88,910	3,830	92,740
2007	46,503	0	46,503	30	36,587	28,784	0	3,486	32,270	—	3,203	–	4,422	1,131	–	8,756	324	–	–	–	–	–	120,102	4,368	124,470
2008	48,753	0	48,753	30	48,121	36,720	0	4,255	40,975	—	5,875	–	6,803	539	–	13,218	551	–	–	–	–	–	148,100	3,548	151,648
2009	55,411	2,000	57,411	40	42,326	44,498	0	6,454	50,952	—	13,196	–	10,971	1,135	–	25,301	399	–	–	–	–	–	172,476	3,954	176,430
2010	62,628	4,000	66,628	1,130	40,909	51,604	0	6,662	58,266	—	20,271	–	14,511	3,584	–	38,366	182	–	–	–	–	–	199,019	6,462	205,481
2011	67,839	6,000	73,839	2,130	21,290	64,778	0	9,785	74,563	—	29,047	–	16,799	6,023	–	51,869	95	–	–	–	–	–	214,260	9,526	223,786
2012	74,236	6,500	80,736	8,532	13,440	78,582	295	13,126	92,003	—	40,327	–	19,310	7,441	–	67,078	269	–	–	–	–	–	250,014	12,044	262,058
2013	83,165	8,615	91,780	10,067	5,522	88,720	810	13,535	103,064	340	51,483	–	23,359	10,553	–	85,394	354	–	–	–	–	–	277,128	19,377	296,505
2014	91,450	11,624	103,073	11,706	4,282	99,874	1,134	17,213	118,221	5,995.3	67,901	–	29,513	12,335	–	109,749	2,751	–	–	–	–	–	329,803	25,975	355,778
2015	101,503	48,255	149,757	13,275	4,282	110,069	436	32,174	142,678	3.0274	85,910	–	31,632	15,582	–	133,123	5,463	125	–	–	–	–	440,640	38,337	478,978
2016	114,663	106,250	220,913	14,605	60	124,070	82	42,026	166,178	6.2761	87,771	–	35,305	42,312	–	165,387	6,174	531	–	–	–	–	563,292	73,316	636,608
2017	129,028	147,419	276,447	16,045	60	135,437	152	52,300	187,889	80,051	83,741	–	35,067	50,652	–	169,460	9,132	1,013	–	–	–	–	654,324	85,774	740,098
2018	143,616	180,669	324,285	17,195	59.7	144,706	460	62,447	306,472	98,859	101,968	–	31,133	58,437	–	191,538	28,917	1,550	–	–	–	–	763,015	107,000	870,016
2019	161,041	211,153	372,193	19,445	280	156,927	1,745	75,937	234,609	107,239	117,064	–	29,840	70,570	–	217,474	38,142	1,659	1	–	–	–	864,460	126,583	991,043
2020	201,781	254,526	456,306	–	210	182,762	1,429	93,486	277,677	111,537	115,039	7,012	45,494	91,750	23,111	282,406	–	1,580	29	3,890	13,958	22,221	1,007,204	162,611	1,169,815
2021	225,303	302,946	528,249	–	210	203,141	1,699	108,282	313,123	139,139	125,462	9,158	45,760	102,177	25,040	307,596	–	1,494	0	4,110	14,971	26,068	1,147,223	187,736	1,334,959
2022	251,931	348,919	600,850	–	210	223,668	2,227	120,837	346,733	141,390	132,232	7,781	45,451	109,025	22,330	316,818	–	1,601	0	3,740	12,196	24,273	1,252,724	195,085	1,447,809
2023	293,465	405,651	699,116	–	210	243,022	2,328	136,389	381,738	147,807	134,421	5,509	41,263	116,451	22,638	320,282	–	2,004	0	3,765	6,395	18,026	1,370,004	209,339	1,579,343

Source: PBOC.

Notes: 1. Treasury bonds include book-entry treasury bonds and electronic saving bonds.

2. Other financial bonds include interbank and exchange-traded financial bonds from 2015.

3. From 2015 to 2019, asset-backed securities (ABSs) include interbank credit ABS and exchange-based ABS.

4. Since 2020, for statistical purposes, government-backed agency bonds are included into enterprise bonds and exchange fund notes, asset-backed notes (ABNs) are separated from the debt financing instruments of non-financial enterprises, and exchange-based ABSs are included into corporate bonds.

5. International institutional bonds refer to bonds issued in China by overseas institutional legal persons, including sovereign institutions, quasi-sovereign institutions, and overseas financial and non-financial institutions.

Table 12 Number of interbank bond market participants, 2014—2023

Year			2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Domestic participants	Incorporated entities	Depository financial institutions	1,088	1,302	1,560	1,745	1,859	2,068	2,261	2,342	2,428	2,446
		Other banking financial institutions	158	182	242	278	324	349	370	398	408	421
		Securities financial institutions	169	171	179	185	189	194	199	207	208	211
		Insurance financial institutions	148	152	154	163	173	183	184	189	189	185
		Non-financial institutions	278	280	274	274	274	265	86	84	10	10
		Others	7	7	21	20	23	23	23	23	23	23
		Sub-total	1,848	2,094	2,430	2,665	2,842	3,082	3,123	3,243	3,266	3,296
	Unincorporated products	Securities investment funds	1,556	2,151	3,137	3,919	4,212	4,796	5,659	6,564	7,270	7,732
		Corporate annuities	1,275	1,431	1,528	1,625	1,684	2,748	3,270	3,271	3,346	3,701
		Social security fund	105	105	106	163	197	206	211	162	156	200
		Insurance products	145	311	641	976	1,087	1,164	1,511	1,741	1,950	2,248
		Trust products	569	666	684	869	949	1,032	1,038	1,496	2,059	3,472
		Specific asset management portfolios of fund companies	176	1,140	3,061	3,425	3,315	3,395	3,610	3,765	3,833	3,902
		Asset management schemes of securities companies	560	1,388	2,743	3,586	3,965	4,832	5,501	5,943	6,395	7,048
		Wealth management products of banks	48	48	445	679	1,006	1,611	2,581	3,120	3,364	3,455
		Others	0	0	114	216	320	412	549	745	893	906
		Sub-total	4,434	7,240	12,459	15,458	16,735	20,196	23,930	26,807	29,266	32,664
Overseas participants			180	302	407	617	1,186	2,610	905	1,016	1,071	1,124
Total			6,462	9,636	15,296	18,740	20,763	25,888	27,958	31,066	33,603	37,084

Source: PBOC.

Table 13 Settlement agents in the interbank bond market

No.	Institution	No.	Institution
1	Industrial and Commercial Bank of China	27	Bank of Qingdao
2	Agricultural Bank of China	28	Bank of Chengdu
3	Bank of China	29	Bank of Chongqing
4	China Construction Bank	30	Bank of Hebei
5	Bank of Communications	31	Xiamen Bank
6	China Merchants Bank	32	Fudian Bank
7	China Minsheng Bank	33	Jinshang Bank
8	China Everbright Bank	34	Haixia Bank of Fujian
9	China CITIC Bank	35	Guiyang Bank
10	Huaxia Bank	36	Bank of Xi'an
11	Industrial Bank	37	Bank of Dongguan
12	Shanghai Pudong Development Bank	38	Harbin Bank
13	China Guangfa Bank	39	Guangdong Shunde Rural Commercial Bank
14	Bank of Beijing	40	Bank of Ningbo
15	Hengfeng Bank	41	Changshu Rural Commercial Bank
16	Bank of Nanjing	42	Meng Shang Bank
17	Bank of Shanghai	43	Hankou Bank
18	Bank of Hangzhou	44	HSBC Bank (China)
19	Shanghai Rural Commercial Bank	45	Standard Chartered Bank (China)
20	Bank of Tianjin	46	BNP Paribas (China)
21	Qishang Bank	47	Deutsche Bank (China)
22	Ping An Bank	48	Citibank (China)
23	Qilu Bank	49	J.P. Morgan Chase Bank (China)
24	Bank of Urumqi	50	MUFG Bank (China)
25	Bank of Changsha	51	DBS Bank (China)
26	Bank of Dalian		

Source: CFETS and PBOC.

Table 14 Primary dealers for open market operations

No.	Institution	No.	Institution
1	Industrial and Commercial Bank of China	27	Agricultural Bank of China
2	China Construction Bank	28	Bank of China
3	Bank of Communications	29	Postal Savings Bank of China
4	China Development Bank	30	The Export-Import Bank of China
5	Agricultural Development Bank of China	31	China Merchants Bank
6	Shanghai Pudong Development Bank	32	Industrial Bank
7	China CITIC Bank	33	Ping An Bank
8	China Guangfa Bank	34	Huaxia Bank
9	China Everbright Bank	35	China Zheshang Bank
10	China Minsheng Bank	36	Hengfeng Bank
11	Bohai Bank	37	Bank of Beijing
12	Bank of Ningbo	38	Bank of Nanjing
13	Bank of Changsha	39	Bank of Shanghai
14	Bank of Guangzhou	40	Bank of Jiangsu
15	Bank of Hangzhou	41	Huishang Bank
16	Bank of Qingdao	42	Xiamen Bank
17	Bank of Hebei	43	Bank of Guiyang
18	Bank of Zhengzhou	44	Bank of Xi'an
19	Bank of Chengdu	45	Shanghai Rural Commercial Bank
20	Guangdong Shunde Rural Commercial Bank	46	Chongqing Rural Commercial Bank
21	Chengdu Rural Commercial Bank	47	Guangzhou Rural Commercial Bank
22	Beijing Rural Commercial Bank	48	MUFG Bank (China)
23	Deutsche Bank (China)	49	HSBC Bank (China)
24	Standard Chartered Bank (China)	50	Citibank (China)
25	CITIC Securities	51	China International Capital Co., Ltd.
26	China Securities Credit Investment Co., Ltd.		

Source: PBOC.

Table 15 Stock market statistics, 2000—2023

Year	Number of listed companies	Listed share capital / 100 million shares	Market capitalization / RMB 100 million	Free-float market capitalization / RMB 100 million	Total capital raised via the A-share market / RMB 100 million	Turnover / RMB 100 million	Average turnover ratio / %		Average P/E ratio / %		Investor accounts / million
							Shanghai	Shenzhen	Shanghai	Shenzhen	
2000	1,088	3,791.7	48,090.9	16,087.5	1,415.17	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	1,277.33	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	738.14	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	806.24	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	715.53	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	344.13	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	2,305.86	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	8,303.34	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	3,429.29	267,113.0	392.5	—	14.86	17.13	10,449.7
2009	1,718	26,162.85	243,939.12	151,258.7	4,816.07	535,986.7	—	—	28.73	46.01	12,037.7
2010	2,063	33,184.35	265,422.59	193,110.41	10,424.74	545,633.54	—	—	21.61	44.69	13,391.04
2011	2,342	36,095.52	214,758.10	164,921.3	7,312.2	421,649.72	—	—	13.4	23.11	14,050.37
2012	2,494	38,295.0	230,357.62	181,658.26	4,558.23	314,667.41	—	—	12.3	22.01	14,054.91
2013	2,489	40,569.08	239,077.19	199,579.54	4,674.98	468,728.6	—	—	10.99	27.76	13,247.15
2014	2,613	43,610.13	372,546.96	315,624.31	8,914.31	743,912.98	—	—	15.99	34.05	14,214.68
2015	2,827	49,997.26	531,304.20	417,925.40	16,064.7	2,550,538.29	—	—	17.63	52.75	21,477.57
2016	3,052	55,820.50	508,245.11	393,266.27	21,028.16	1,267,262.64	—	—	18.94	62.36	—
2017	3,482	60,919.15	567,475.37	449,105.31	17,223.86	1,124,625.07	—	—	19.67	39.53	—
2018	3,584	57,581.02	434,924.02	353,794.19	12,107.35	901,103.17	—	—	12.45	20.00	—
2019	3,777	61,719.92	592,934.57	483,461.26	15,413.25	1,366,232.67	—	—	14.55	26.15	—
2020	4,154	65,455.93	797,238.16	643,605.29	16,676.54	2,068,252.52	—	—	16.76	34.51	—
2021	4,685	70,759.28	918,242.52	750,706.47	18,178.06	2,579,734.12	—	—	16.61	33.03	—
2022	5,079	73,525.21	790,116.19	664,576.94	16,894.45	2,247,060.17	—	—	12.78	23.44	—
2023	5,107	75,489.40	773,130.71	674,341.52	11,344.30	2,122,109.52			11.75	23.62	

Source: Wind.

Table 16 Change in stock market turnover and indices, 2000—2023

Unit: RMB 100 million

Year	Turnover	Average daily turnover	SSE composite index				SZSE composite index			
			Open	High	Low	Close	Open	High	Low	Close
2000	60,826.6	254.5	1,368.69	2,125.72	1,361.21	2,073.48	402.71	654.37	414.69	635.73
2001	38,305.2	159.6	2,077.08	2,245	1,515	1,645.97	636.62	664.85	439.36	475.94
2002	27,990.5	118.1	1,643.49	1,748.89	1,339.2	1,357.65	475.14	512.38	371.79	388.76
2003	32,115.3	133.25	1,347.43	1,649.6	1,307.4	1,497.04	386.61	449.42	350.74	378.63
2004	42,333.9	174.21	1,492.72	1,783.01	1,259.43	1,266.5	377.93	470.55	315.17	315.81
2005	31,663.1	130.84	1,260.78	1,328.53	998.23	1,161.06	313.81	333.27	237.18	278.75
2006	90,468.7	375.39	1,163.88	2,698.9	1,161.91	2,675.47	278.99	710.14	278.99	706.01
2007	460,556.2	1,903.12	2,728.19	6,092.06	2,612.54	5,261.56	555.26	1,567.74	547.89	1,447.02
2008	267,113.0	1,085.82	5,265	5,497.9	1,706.7	1,820.81	1,450.33	1,584.39	452.33	553.08
2009	535,986.7	2,196.67	1,849.02	3,478.01	1,844.09	3,277.139	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	743,913.0	3,036.38	2,112.13	3,239.36	1,974.38	3,234.68	1,055.88	1,504.48	1,004.93	1,415.19
2015	2,550,538.29	10,453.0	3,258.63	5178.19	2,850.71	3,539.18	1,419.44	3,156.96	1,408.99	2,308.91
2016	1,267,262.64	5,193.7	3,536.59	3,538.69	2,638.3	3,103.64	2,304.48	2,304.49	1,618.12	1,969.11
2017	1,124,625.07	4,609.1	3,105.31	3,450.50	3,016.53	3,307.17	1,972.55	2,054.02	1,753.53	1,899.34
2018	901,103.17	3,708.24	3,314.03	3,587.03	2,449.20	2,493.90	1,903.49	1,966.15	1,212.23	1,267.87
2019	1,273,572.04	5,219.56	2,497.88	3,288.45	2,440.91	3,050.12	1,270.50	1,799.10	1,231.83	1,722.95
2020	2,068,252.52	8,511.33	3,066.34	3,474.92	2,646.81	3,473.07	1,734.63	2,333.46	1,552.96	2,329.37
2021	2,579,734.12	10,616.19	3,474.68	3,731.69	3,312.72	3,639.78	2,335.16	2,571.27	2,130.09	2,530.14
2022	2,247,060.17	9,285.37	3,649.15	3,651.89	2,863.65	3,089.26	2,541.46	2,542.99	1,724.92	1,975.61
2023	2,122,109.52	8,769.05	3,116.51	3,395.00	2,898.88	2,974.93	2,004.12	2,190.54	1,766.62	1,837.85

Sources: CSRC, SSE, and SZSE.

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

No.	Institution	No.	Institution
1	Industrial and Commercial Bank of China	14	China Zheshang Bank
2	Agricultural Bank of China	15	China Development Bank
3	Bank of China	16	Bank of Shanghai
4	China Construction Bank	17	Bank of Nanjing
5	Bank of Communications	18	Bank of Ningbo
6	China CITIC Bank	19	BNP Paribas (China)
7	China Merchants Bank	20	Shanghai Pudong Development Bank
8	China Everbright Bank	21	HSBC Bank (China)
9	Huaxia Bank	22	Citibank (China)
10	China Guangfa Bank	23	Standard Chartered Bank (China)
11	Ping An Bank	24	J.P. Morgan Chase Bank (China)
12	Industrial Bank	25	OCBC China
13	China Minsheng Bank		

Source: CFETS.

Table 18 RMB/FX central parity rates, 1994—2023

Year	USD	EUR	JPY	HKD	GBP	MYR	RUB	ZAR	KRW	AED	SAR	HUF	PLN	DKK	SEK	NOK	TRY	MXN	AUD	CAD	NZD	SGD	CHF
1994	844.91	—	7.78	112.66	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1995	831.79	—	8.0703	107.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1996	829.92	—	7.1613	107.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1997	827.98	—	6.3627	106.81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1998	827.87	—	7.1719	106.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1999	827.93	—	8.0933	106.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2000	827.81	—	7.2422	106.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2001	827.66	—	6.3005	106.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002	827.73	863.6	6.9035	106.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003	827.69	1,033.8	7.7263	106.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004	827.65	1,126.3	7.9701	106.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005	807.02	957.97	6.8716	104.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2006	780.87	1,026.7	6.563	100.47	1,532.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2007	730.46	1,066.7	6.4064	93.638	1,458.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2008	683.46	965.9	7.565	88.189	987.98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2009	682.82	979.71	7.3782	88.048	1097.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2010	662.27	880.65	8.126	85.093	1,021.8	46.649	462.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2011	630.09	816.25	8.1103	81.07	971.16	50.279	508.6	—	—	—	—	—	—	—	—	—	—	—	640.93	617.77	—	—	—
2012	628.55	831.76	7.3049	81.085	1,016.1	48.865	485.28	—	—	—	—	—	—	—	—	—	—	—	653.63	631.84	—	—	—
2013	609.69	841.89	5.7771	78.623	1,005.6	54.141	539.85	—	—	—	—	—	—	—	—	—	—	—	543.01	572.59	—	—	—
2014	611.9	745.56	5.1371	78.887	954.37	56.737	905.36	—	—	—	—	—	—	—	—	—	—	—	501.74	527.55	480.34	463.96	—
2015	649.36	709.52	5.3875	83.778	961.5	66.051	1,131	—	—	—	—	—	—	—	—	—	—	—	472.76	468.14	444.26	458.75	640.18
2016	693.7	730.68	5.9591	89.451	850.94	64.406	869.06	196.75	17,371.0	52.938	54.062	4,247.68	60.355	101.71	131.16	124.27	50.757	298.64	501.57	514.06	483.08	479.95	679.89
2017	653.42	780.23	5.7883	83.591	877.92	62.224	881.4	189.5	16,369.0	56.212	57.397	3,973.0	53.576	95.43	126.24	126.24	57.834	301.65	509.28	520.09	463.27	488.31	667.79
2018	686.32	784.73	6.1887	87.62	867.62	60.683	1,013.83	211.19	16,327.0	53.537	54.685	4,091.61	54.732	95.17	131.34	127.74	77.151	287.02	482.5	503.81	459.54	500.62	694.94
2019	689.01	774.7	6.3828	89.608	905.74	59.236	885.06	202.69	16,618.0	52.612	53.758	4,285.15	54.983	96.47	134.65	127.7	85.049	271.62	483.34	530.69	463.88	515.4	712.67
2020	652.49	802.5	6.3236	84.164	899.03	61.833	1,140.11	224.33	16,675.0	56.302	57.505	4,542.9	57.079	92.71	125.59	130.77	113.161	304.86	501.63	511.61	470.5	493.14	740.06
2021	637.57	721.97	5.5415	81.76	860.64	65.503	1,170.04	249.78	18,656.0	57.602	58.884	5,109.1	63.624	102.98	141.84	138.23	207.365	320.9	462.2	500.46	435.53	471.79	697.76
2022	696.46	742.29	5.2358	89.327	839.41	63.405	1,061.93	243.12	18,106.0	52.726	53.971	5,383.29	62.98	100.17	150.17	142.01	268.597	279.58	471.38	513.85	441.62	518.31	754.32
2023	708.27	785.92	5.0213	90.622	904.11	64.870	1,245.82	261.83	18,136.0	51.745	52.836	4,871.05	55.23	94.91	140.65	143.62	415.785	239.15	484.84	536.73	449.91	537.72	841.84

Source: SAFE.

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

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

Table 19 Futures market trading, 1993—2023

Units: RMB 100 million, 10,000 lots

Year	Commodity futures market		Financial futures market	
	Trading value	Trading volume	Trading value	Trading volume
1993	5,521.99	890.69	—	—
1994	31,601.41	12,110.72	—	—
1995	100,565.3	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
2016	1,774,124.99	411,943.24	182,191.10	1,833.59
2017	1,633,042.09	305,155.38	245,922.02	2,459.59
2018	1,846,960.97	300,165.53	261,222.97	2,721.01
2019	2,209,875.26	389,566.73	696,210.17	6,641.04
2020	3,220,907.56	603,734.46	1,154,350.96	11,528.14
2021	4,630,336.71	739,199.23	1,181,651.64	12,203.32
2022	4,018,977.84	661,634.60	1,330,361.49	15,186.17
2023	4,353,398.01	833,297.55	1,331,698.71	16,834.00

Source: CFA.

Note: Starting from 2011, the trading volume was calculated unilaterally, and data of exchange for physical transactions are not included in the table.

Table 20 Gold market trading, 2003—2023

Units: RMB 100 million, metric ton

Year	Trading value	Trading volume
2003	459.2	470.7
2004	731.0	665.3
2005	1,069.8	906.4
2006	1,947.5	1,249.6
2007	3,164.9	1,828.1
2008	8,683.9	4,457.6
2009	10,288.8	4,710.8
2010	16,157.8	6,051.5
2011	24,772.2	7,438.5
2012	21,506.3	6,350.2
2013	32,133.8	11,614.5
2014	45,891.6	18,486.7
2015	80,083.9	34,067.3
2016	130,240.6	48,676.6
2017	149,751.9	54,292.0
2018	183,046.4	67,510.3
2019	214,944.8	68,574.4
2020	225,507.8	58,671.5
2021	130,812.6	34,841.1
2022	151,796.0	38,317.8
2023	195,254.4	21,218.3

Source: SGE.

Table 21 OTC gold businesses of commercial banks, 2007—2023

Year	Trading volume / value	Account gold		Physical gold			Others								
		USD-denominated / 10,000 oz, USD 100 million	RMB-denominated (metric ton, RMB 100 million)	Proprietary / metric ton, RMB 100 million	Agent / metric ton, RMB 100 million	Gold accumulation and regular investment / metric ton, RMB 100 million	Gold leasing / metric ton, RMB 100 million	Gold lending borrowing / metric ton, RMB 100 million	Gold pledging / metric ton, RMB 100 million	Domestic USD gold forwards / 10,000 oz, USD 100 million	Domestic USD gold options / 10,000 oz, USD 100 million	Domestic USD gold swaps / 10,000 oz, USD 100 million	Domestic RMB gold forwards / metric ton, RMB 100 million	Domestic RMB gold swaps / metric ton, RMB 100 million	Domestic RMB gold options / metric ton, RMB 100 million
Unit	Trading volume	157.68	352.71	6.09	3.96	—	33.11	1.20	—	204.93	8.48	—	—	—	—
	Trading value	11.08	607.05	11.20	7.16	—	56.40	2.31	—	11.84	0.60	—	—	—	—
2008	Trading volume	293.09	1,332.55	33.12	4.13	—	73.99	11.40	—	574.85	6.28	—	—	—	—
	Trading value	25.37	2,546.30	66.68	8.18	—	141.50	20.16	—	54.44	0.58	—	—	—	—
2009	Trading volume	579.96	1,381.16	40.73	3.43	0.54	91.29	7.56	—	162.06	2.29	—	—	—	—
	Trading value	57.34	2,923.48	89.90	7.64	1.30	191.98	15.09	—	15.98	0.22	—	—	—	—
2010	Trading volume	418.67	1,205.15	80.40	3.06	12.27	155.80	10.63	0.27	257.82	1.74	—	3.09	—	—
	Trading value	51.47	3,227.49	222.90	8.53	35.29	413.25	28.85	—	32.75	0.21	—	8.78	—	—
2011	Trading volume	447.20	1,864.40	129.50	6.16	30.30	301.30	31.99	4.56	407.04	6.06	17.99	5.09	—	—
	Trading value	72.21	6,271.71	428.50	21.49	102.18	970.55	104.92	—	64.69	0.90	2.74	17.59	—	—
2012	Trading volume	424.35	1,458.89	126.20	10.55	59.85	465.01	54.80	7.43	1,331.50	61.46	49.93	20.95	—	—
	Trading value	70.71	4,947.18	443.70	41.20	205.82	1,583.70	187.23	—	222.01	10.17	8.35	70.91	—	—
2013	Trading volume	497.26	1,864.54	198.63	24.89	298.24	947.65	407.23	39.85	991.99	146.88	524.56	29.76	18.63	—
	Trading value	70.39	5,159.69	618.25	87.76	838.09	2,656.29	1,094.43	78.96	136.48	20.39	75.63	79.86	60.86	—
2014	Trading volume	250.37	910.78	91.36	25.16	594.24	1,370.69	474.80	17.14	1,735.95	40.87	341.08	197.29	10.35	0.03
	Trading value	31.59	2,289.79	250.76	94.19	1,483.77	3,438.19	1,180.97	32.83	218.64	5.18	43.68	496.33	26.01	0.07
2015	Trading volume	377.34	1,109.83	128.18	27.54	535.02	1,582.71	849.22	27.47	2,414.39	28.74	1,314.93	737.86	309.82	0.31
	Trading value	43.95	2,609.08	321.01	100.54	1,252.41	3,739.06	2,009.87	74.63	281.36	3.37	151.75	1,767.57	7,101.86	0.74
2016	Trading volume	685.04	1,889.54	143.47	34.40	463.96	1,827.78	1,242.59	3.42	1,359.40	50.53	1,814.90	799.26	32.01	0.08
	Trading value	86.47	5,064.28	396.04	135.83	1,239.66	4,855.60	3,319.76	6.00	168.84	6.34	217.35	2,134.97	85.47	0.21
2017	Trading volume	577.48	1,951.19	101.47	27.97	378.72	1,778.05	1,216.60	0.83	707.64	73.92	3,280.59	1,074.17	98.92	1.16
	Trading value	72.87	5,344.52	288.74	117.22	1,044.04	4,901.43	3,367.16	1.66	89.45	9.28	414.87	2,982.79	277.73	3.34
2018	Trading volume	593.63	2,984.04	95.66	36.04	257.61	968.16	790.58	0.17	960.18	51.45	7,792.08	856.98	31.50	144.62
	Trading value	76.39	8,035.55	269.00	146.13	700.93	2,633.05	2,149.29	0.30	122.19	6.57	996.77	2,365.06	86.78	426.96
2019	Trading volume	758.14	3,277.63	116.05	39.05	246.94	740.19	1,448.03	0.04	472.26	40.25	9,129.24	404.93	113.42	19.20
	Trading value	107.11	10,391.20	372.13	152.90	771.85	2,268.43	4,431.75	0.07	65.90	5.63	1,258.21	1,251.49	359.56	66.60
2020	Trading volume	946.63	4,185.73	155.45	32.26	298.02	602.89	1,410.12	0.78	480.39	45.82	7,410.00	360.92	248.93	76.34
	Trading value	164.28	15,952.76	621.53	142.24	1,154.44	2,304.64	5,340.85	2.20	83.20	7.80	1,253.18	1,377.40	941.83	302.42
2021	Trading volume	311.64	1,171.51	111.91	27.94	188.72	572.39	1,458.46	0.25	227.78	23.11	4,344.09	295.11	104.16	31.81
	Trading value	56.30	4,377.49	469.06	122.62	713.61	2,144.92	5,469.75	0.85	40.96	4.22	775.86	1,111.24	394.01	121.65
2022	Trading volume	113.66	492.93	121.59	29.29	417.02	519.83	1,615.80	0.05	710.02	43.15	3,773.88	223.79	86.90	14.65
	Trading value	23.11	1,924.14	489.91	137.74	1,636.76	2,038.71	6,295.75	0.15	131.14	7.69	673.67	883.04	339.42	60.05
2023	Trading volume	9.46	18.77	165.12	41.11	422.73	466.24	1,743.43	0.34	197.22	240.04	2,335.78	183.09	29.00	11.78
	Trading value	1.86	81.75	754.10	273.39	1,900.19	2,093.73	7,732.23	1.07	38.34	45.45	458.08	827.76	124.01	54.06

Source: Gold market trading report database.

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 from 2007 to 2013, covers leases only from 2014 onwards. Volume of gold lending/borrowing, comprising gold lending and borrowing for the years from 2007 to 2013, covers lending only from 2014 onwards. Volume of gold pledging is the weight of gold received as pledge.

Table 22 Interest rate derivatives trading, 2006—2023

Unit: RMB 100 million

Year	Interest rate swaps		X-swap		Bond forwards		Standard bond forwards		Forward rate agreements	
	Number of trades	Notional principal amount	Number of trades	Notional principal amount	Number of trades	Trading volume	Number of trades	Trading volume	Number of trades	Notional principal amount
2006	103	355.7	—	—	398	664.5	—	—	—	—
2007	1,978	2,186.9	—	—	1,238	2,518.1	—	—	14	10.5
2008	4,040	4,121.5	—	—	1,327	5,005.5	—	—	137	113.6
2009	4,044	4,616.4	—	—	1,599	6,556.4	—	—	27	60
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
2012	20,945	29,021.4	—	—	56	166.1	—	—	3	2
2013	24,409	27,277.8	—	—	1	1.01	—	—	1	0.5
2014	43,071	40,384.51	207	393	—	—	—	—	—	—
2015	64,812	82,587.33	996	5,024	83	19.6	59	17.2	—	—
2016	87,882	99,306.95	8	8	7	14.86	8	1	1	1
2017	138,404	144,057.59	0	0	15	12	0	0	0	0
2018	188,461	214,906.57	0	0	5	3.93	2,859	796.2	0	0
2019	237,654	181,394	—	—	—	—	3,891	4,368	—	—
2020	274,029	195,564.59	—	—	—	—	6,366	4,532.3	—	—
2021	251,449	210,255.11	—	—	—	—	4,404	2,614.8	—	—
2022	244,111	209,714.88	—	—	—	—	2,910	2,600.0	—	—
2023	351,685	315,039.23	—	—	—	—	3,856	3,137.0	—	—

Source: CFETS.