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Contributors to This Report

Chief Editors:	SUN Tianqi	YANG Liu	MENG Hui
	LI Minbo		
Editors:	LI Minbo	WANG Xiaoqing	LIU Tong
Authors:			
Executive Summary:	WANG Xiaoqing	LIU Tong	MO Yiyi
Chapter I:	LI Xinyi	ZHANG Xiaoyu	CHEN Jun
	DONG Wenhua	WANG Lei	
Chapter II:	WANG Yaqi	TANG Yang	LEI Mengfei
Chapter III:	LIANG Shuang	JI Shipeng	WANG Weilin
	YU Chao		
Chapter IV:	HU Xiaofan	WANG Qian	TANG Liu
	WEN Ya	SHI Lingli	YANG Mengping
	YANG Ruiwen	WANG Haina	LUO Siyuan
Chapter V:	PAN Lu	LI Xinyi	DING Hongtao
	FAN Xicheng	QIN Tianhe	LI Yan
	LI Miao	LI Zegeng	HE Shan
	LI Xiayan	LI Xin	YU Jingjing
	LI Hanlin		
Box 1:	LIANG Bin	LI Xin	
Box 2:	SHEN Changye		
Box 3:	LIU Jie	SHEN lingmei	
Box 4:	ZHANG Wenzhuo		
Box 5:	WANG Yaqi	TANG Yang	
Box 6:	YANG Shan		
Box 7:	LIANG Shuang		
Box 8:	YU Chao		
Box 9:	LI Yan	WANG Zinan	
Box 10:	JI Shipeng		
Box 11:	LI Hanlin		
Box 12:	TANG Zhenqiang		
Special Topic 1:	HE Shan		

Special Topic 2:	WANG Yaqi		
Special Topic 3:	LEI Mengfei		
Special Topic 4:	YANG Shan		
Appendix:			
	WU Shihan	WANG Weilin	LIANG Shuang
	LU Chongwei	MAO Qizheng	LI Bo
	ZHAO Pengfei		
Other Contributors:			
	DING Pan	YU Mingxing	MA Junwei
	WANG Liang	LV Mo	LIU Jian
	JI Baolin	ZHANG Guowen	ZHANG Xinyi
	ZHOU Yutong		

Contributors to English Edition

Chief Editors:	SUN Tianqi	LI Minbo
Editors:	WANG Xiaoqing	LIU Tong

Translators:

Executive Summary:	MA Hui
Chapter I:	CHEN Song
Chapter II:	GUO Minhui
Chapter III:	LIU Tong
Chapter IV:	HU Xiaofan
Chapter V:	PAN Lu
Box 1:	CHEN Song
Box 2:	SHEN Changye
Box 3:	MO Yiyi
Box 4:	LIU Qian
Box 5:	GUO Minhui
Box 6:	LIU Qian
Box 7:	FENG Lei
Box 8:	CHEN Wei
Box 9:	LIU Tong
Box 10:	CHEN Wei
Box 11:	FENG Lei
Box 12:	FENG Lei
Special Topic 1:	LIU Qian
Special Topic 2:	ZHANG Tiantian
Special Topic 3:	LIU Tong
Special Topic 4:	LIU Tong
Appendix:	LI Xinyi

Executive Summary

Since the start of 2022, faced with a complex and changing international environment and shocks of unexpected factors such as the pandemic, the Chinese government has coordinated pandemic containment efforts with social and economic development, and intensified macroeconomic adjustment. As a result, the economic performance remained generally stable despite the challenges, and most of the main development goals were met amid the complex and changing environment, as reflected in stable economic growth, steadily improving quality of development and a stable social order. The GDP grew by 3.0 percent year on year. Employment was generally stable. The balance of payments was in basic equilibrium, and the RMB exchange rate remained basically stable at an adaptive and equilibrium level. The financial system performed well in general.

In line with the overall arrangements by the CPC Central Committee and the State Council as well as the requirements of "containing the pandemic, stabilizing the economy and balancing development with security", the financial sector took active and preemptive actions to resolutely support economic growth, effectively prevent and mitigate financial risks, continuously deepen financial reform and opening-up, and earnestly improve financial services. **First**, all-out efforts were made to stabilize macroeconomic development. Liquidity remained adequate at a reasonable level. The required reserve ratio was cut across the board on two occasions in 2022 by a total of 0.5 percentage point. Structural monetary policy instruments were targeted to intensify the support for priority areas and weak links in the economy. The loan interest rate in real terms continued to fall. **Second**, risk resolution went well. Continued efforts were made in resolution of high-risk small- and medium-sized financial institutions. Classification and resolution of non-performing assets went well, and a total of RMB 3.1 trillion yuan of non-performing assets of banking financial institutions were disposed of in 2022. Resolution of high-risk enterprise groups such as the “Mingtian Group” and the HNA Group proceeded in an orderly manner and was about to be concluded. **Third**, the financial order was continuously straightened. Building on the progress in risk disposal of shadow banking, the financial management authorities promoted transformation and rectification of the asset management business, disposed risks associated with financial exchanges and pseudo-financial exchanges in a prudent manner, strengthened regulation on third-party wealth management firms, and cracked down on unlawful financial activities such as cross-border internet-based securities brokerage and crypto currency trading. Risk resolution of stock P2P lending continued. Regulation of third-party internet platform deposits achieved good result. **Fourth**, all-round efforts were made to ensure stable performance of the real estate market. Financial support was provided to ensure timely delivery of presold houses. The financial management authorities announced 16 measures to stabilize the real estate sector, guided financial institutions to support reasonable financing needs of real estate developers, established the dynamic adjustment mechanism for newly issued first-home mortgage interest rates, and lowered mortgage rate, to better meet the rigid housing demand and the demand for improved housing conditions. **Fifth**, external shocks and risks were effectively managed. The RMB exchange rate remained basically stable at an adaptive and equilibrium level. Cross-border capital inflows and outflows were basically balanced, and so were demand and supply in the FX market. The foreign exchange reserves stabilized above USD 3 trillion. **Sixth**, good progress was made in improving the financial stability safeguarding system. After being reviewed by the Standing Committee of the National People’s Congress, the *Financial Stability Law (Draft)* was published to seek public comments. Efforts were made to set up the financial stability guarantee fund. The fund took shape and had accumulated some capital. In general, good progress was made in risk resolution and mitigation in a well-targeted, preemptive and reform-driven manner, and institutional arrangements were made to fill in regulatory gaps. Notwithstanding complex shocks, financial risks were reduced and generally controllable.

While acknowledging the achievements, we should be fully aware of the difficulties and challenges in economic and financial development, such as the outstanding issue of unbalanced and insufficient development. **On the international front**, the external environment has remained complex and grave, including ongoing geopolitical tensions, food and energy security issue, weakening growth momentum in the world economy and global trade, elevated inflation, and increasing risks of financial market volatilities due to the spillover effect of interest rate increases in the advanced economies. **On the domestic front**, after Covid-19 containment measures were lifted, the economic recovery would inevitably experience setbacks. Domestic demand has remained sluggish, and there are risks and concerns in some areas of the economy.

Going forward, China's economy still enjoys strong resilience and tremendous potential. The fundamentals supporting long-term growth have remained unchanged. The financial sector will continue to follow the guidance of Xi Jinping's Thought on Socialism with Chinese Characteristics for the New Era, and implement the spirits of the twentieth National Congress of the Communist Party of China, the Central Economic Work Conference, the Central Financial Work Conference and the general principle of seeking progress amidst stability. We will implement the new development philosophy in a full, precise and comprehensive manner, accelerate the creation of a new development pattern, deepen reforms and opening-up in all respects, and strengthen the intensity of macro policy adjustments. We will focus on expanding domestic demand, shoring up confidence and preventing risks, and work continuously to support economic recovery, strengthen inherent growth drivers, improve people's expectations, and mitigate risks, so as to improve the quality of economic development while maintaining a reasonable growth rate. We will raise the political awareness of the financial work and make it people-centered, uphold the Party Central Committee's centralized and unified leadership in the financial sector, and further improve the financial work with a strong sense of responsibility without letting down the guard. We will focus on creating favorable monetary and financial conditions, maintain a sound monetary policy, and pay more attention to intertemporal and countercyclical adjustments. We aim to maintain the RMB exchange rate at an adaptive and equilibrium level. We will enhance the institutional arrangements through which the financial sector supports the real economy, meet the effective financing needs of the real economy, and improve financial services to weak links in the economy. We will strengthen financial regulation in an all-round manner and effectively enhance regulatory efficiency by incorporating all financial activities into the regulatory framework, strengthening institution regulation, conduct regulation, behavior regulation, see-through regulation and continuous regulation, and cracking down on illicit financial activities. Risks of small- and medium-sized financial institutions will be dealt with in a timely manner. Risks must be identified, warned, revealed and handled as early as possible, and the early correction mechanism with mandatory actions must be refined. A long-term mechanism for forestalling and defusing local government debt risks will be established, alongside with a government debt management mechanism that is aligned with high-quality development, and the structure of central and local government debts will be improved. We will enhance macroprudential management of real estate finance, meet the reasonable financing need of real estate developers of all types of ownership structures, tailor-make the policy mix according to local conditions, and set up a new model for the development of the real estate sector. Following a market-oriented and law-based approach, financial institutions, their shareholders and actual controlling parties, as well as the financial management authorities and local governments will be held accountable. Efforts will be made to refine the fiscal and financial risk resolution mechanism that falls into the remit of leading local Party and government officials. We will further tap the role of deposit insurance in risk resolution, steadily replenish the financial stability guarantee fund and establish proper rules governing the fund, promote early adoption of the financial stability law, and establish a long-term mechanism for safeguarding financial stability. We will strengthen regulatory cooperation and coordination to deal with cross-sector, cross-region and cross-border risks, so as to stick to the bottom line of preventing systemic financial risks.

Abbreviations and Acronyms

AMP	Asset Management Product
AML/CFT	Anti-Money Laundry/Combating the Financing of Terrorism
BCBS	Basel Committee on Banking Supervision
CAR	Capital Adequacy Ratio
CCyB	Countercyclical capital buffer
CCP	Central counterparty
CMG	Crisis Management Group
CET-1	Common Equity Tier-1
CPC	Communist Party of China
CPI	Consumer Price Index
CSDC	China Securities Depository and Clearing Corporation Limited
CFETS	China Foreign Exchange Trade System
CCDC	China Central Depository & Clearing Co., Ltd.
CBIRC	China Banking and Insurance Regulatory Commission
CBRC	China Banking Regulatory Commission
CBIRC	China Banking and Insurance Regulatory Commission
CSRC	China Securities Regulatory Commission
CIRC	China Insurance Regulatory Commission
CITIC	China International Trust and Investment Corporation
COVID-19	Corona Virus Disease 2019
D-SIB	Domestic Systemically Important Bank
D-SII	Domestic Systemically Important Insurer
EBA	European Banking Authority
EU	European Union
ECB	European Central Bank
ETF	Exchange Traded Fund
EME	Emerging Market Economy
FDIC	Federal Deposit Insurance Corporation
FSB	Financial Stability Board

FX	Foreign Exchange
FHCs	Financial Holding Companies
GDP	Gross Domestic Product
G-SIB	Global Systemically Important Bank
G-SII	Global Systemically Important Insurer
HICP	Harmonised Index of Consumer Prices
IAIS	International Association of Insurance
ISSB	International Sustainability Standards Board
LCR	Liquidity Coverage Ratio
LEX	Large Exposure
LPR	Loan Prime Rate
LEI	Legal Entity Identifier
LGFV	Local Government Financing Vehicle
MSE	Micro-and Small-sized Enterprises
MSMEs	Micro, Small and Medium Enterprises
MPA	Macroprudential Assessment
MOF	Ministry of Finance
NPL	Non-performing Loan
NPA	Non-performing Asset
NSFR	Net Stable Funding Ratio
NIM	Net Interest Margin
NFRA	National Financial Regulatory Administration
NGFS	Network of Central Banks and Supervisors for Greening the Financial System
OCC	Office of the Comptroller of the Currency
PBC	People’s Bank of China
PCA	Prompt Corrective Actions
P/E	Price-to-earnings
PMI	Purchasing Managers’ Index
PPI	Producer Price Index
QFII	Qualified Foreign Institutional Investors
RCAP	Regulatory Consistency Assessment Program
ROA	Return on Asset
ROE	Return on Equity
ROI	Return on Investment
RMB	Renminbi
RQFII	RMB Qualified Foreign Institutional Investors
RWA	Risk Weighted Assets

SAFE	State Administration of Foreign Exchange
STAR	Sci-Tech Innovation Board
Shibor	Shanghai Interbank Offered Rate
SME	Small- and medium-sized enterprise
SPVs	Special Purpose Vehicle
SIFI	Systemically Important Financial Institution
SVB	Silicon Valley Bank
TLAC	Total Loss-absorbing Capacity
US	United States
USD	United States Dollar
Y-o-y	Year-on-year

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Chapter I

Macroeconomic Performance

In 2022, geopolitical tensions continued, inflation remained elevated in some major economies, the growth momentum of global economy and trade weakened, the financial market was volatile, and the external environment grew more uncertain. China efficiently coordinated Covid-19 pandemic containment and social and economic development despite multiple unexpected shocks at home and abroad. China rolled out a package of policies and follow-up measures to stabilize the economy and met the major annual targets for development amid a complex and volatile environment. Going forward, China will uphold the general principle of pursuing progress while ensuring stability, fully and faithfully apply the new development philosophy on all fronts, expedite the fostering of a new development pattern, and focus on promoting high-quality development. China will comprehensively deepen reform and opening up, boost market confidence, and combine the strategy of expanding domestic demand with the work on deepening supply-side structural reforms. It will take effective measures to forestall and defuse major risks, promote sustained recovery of the economy, and effectively upgrade and appropriately expand the economic output.

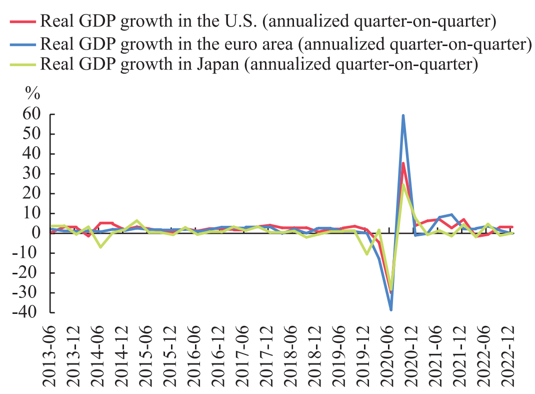
I. International Macroeconomic and Financial Developments

In 2022, due to recurrent Covid-19 pandemic, escalating geopolitical tensions and persistently high inflation in some major economies, the major advanced economies hiked interest rates rapidly and forcefully. Against this backdrop, the global economy slowed down and the volatility of global financial markets increased, making external environment more complex and uncertain.

1. Economic Developments in Major Economies

The global economic recovery decelerated. In 2022, the growth momentum in major economies weakened. Due to sluggish exports and the decline in investment, the U.S. annual GDP grew by 2.1 percent, less than half of the 5.9 percent growth in 2021. Its manufacturing PMI stayed under 50, posting 49 and 48.4 in November and December respectively. In the euro area, the annual GDP growth registered 3.5 percent, also significantly lower than the 5.3 percent growth in 2021. In particular, its annualized quarter-on-quarter GDP growth slowed down notably from 3.7 percent in the second quarter to 1.5 percent and −0.2 percent in the third and fourth quarters. In Japan, the annual GDP growth was 1.1 percent compared with the 2.1 percent growth in 2021. Its aggregate output is yet to return to pre-Covid levels (Figure 1.1).

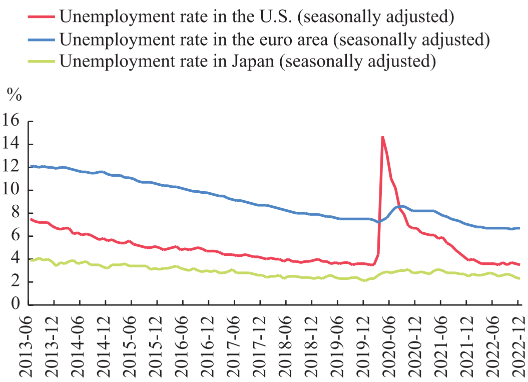
Figure 1.1 Growth Rates of Major Economies



Source: Wind.

The unemployment rate remained low. The unemployment rates in the U.S. and the euro area came in at 3.5 percent and 6.7 percent respectively in December 2022, both at record lows, while that in Japan was 2.3 percent, almost back to pre-Covid levels (Figure 1.2). Labor shortage remained acute in the U.S. and euro area. The U.S. labor force participation rate did not return to pre-Covid levels, staying within the range of 62.1−62.4 percent in 2022. The job vacancies for December increased by 6.7 percent month-on-month to 11.01 million, the biggest jump since July 2021. The job vacancy rate in the euro area was 3.1 percent in the fourth quarter, the same as the previous quarter, but still at historic highs. The labor force participation rate in Japan remained stable.

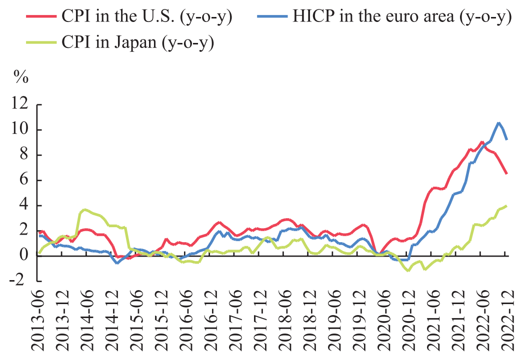
Figure 1.2 Unemployment Rates of Major Economies



Source: Wind.

Inflation showed signs of peaking, but remained at record highs. The U.S. CPI rose by 6.5 percent year on year in December 2022, falling notably from the peak of 9.1 percent in June, but still at historic highs. The HICP in the euro area increased by 9.2 percent year on year, falling for two consecutive months. In Japan, the CPI was up by 4 percent year on year, a new record high since 1991 (Figure 1.3). The global inflation this time around is quite sticky and its causes are complicated. First, major economies implemented massive stimulus policies after the outbreak of Covid-19 pandemic. Their policy actions increased global liquidity and set the stage for inflation from the demand side. Second, the escalation in Russia-Ukraine conflict further aggravated the global supply bottleneck caused by the Covid-19 pandemic. The supply shortage of commodities, such as energy, agricultural products and metals gave rise to the general increase in prices, and this was further passed through the global supply chain to wider middle- and lower-stream industries. Third, the labor market in the major advanced economies remained tight, and this has supported high wage growth.

Figure 1.3 Price Indices of Major Economies

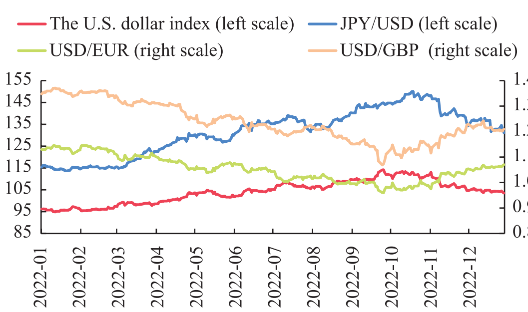


Source: Wind.

2. Volatility Increased in Global Financial Markets

The foreign exchange market was highly volatile. The U.S. dollar index increased first and then dropped in 2022. It once hit the high of 114, and fell back to the range of 103−106 in December, rising by 7.84 percent. The exchange rates of the euro and the Japanese yen against the U.S. dollar both fell to 20-year lows. The euro depreciated by 5.89 percent against the U.S. dollar in 2022. It once depreciated to 0.96 against the dollar, and rebounded to 1.07 at the end of the year. The Japanese yen once weakened to 150 yen per dollar, and was back to around 130 at the end of the year. The Japanese authority intervened in the foreign exchange market for the first time in 24 years on September 22, and allowed the yield on the 10-year Japanese government bonds to move 50 basis points either side of its 0 percent target on December 20, up from the 25 basis points previously. The British pound once depreciated to 1.03 against the U.S. dollar, the lowest level since 1971, and was back to 1.21 at the year-end. However, the pound still weakened by around 10 percent compared with the beginning of the year (Figure 1.4).

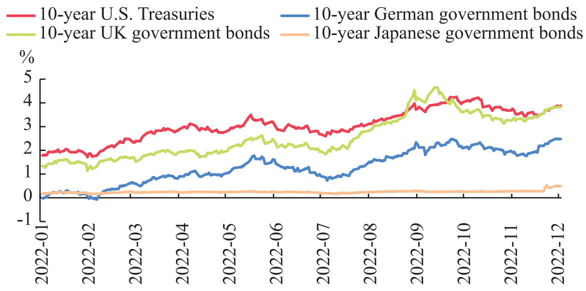
Figure 1.4 Exchange Rates of Major Currencies



Source: Wind.

The yield on government bonds of major advanced economies fluctuated upwards. Due to high inflation and rapid monetary tightening, the yield on government bonds of the major advanced economies fluctuated upwards. As of end-2022, the yield on 10-year U.S., German, UK, and Japanese government bonds closed at 3.88 percent, 2.51 percent, 3.80 percent and 0.45 percent, up by 2.36, 2.72, 2.79 percentage points and 0.37 percentage point respectively compared with end-2021 (Figure 1.5).

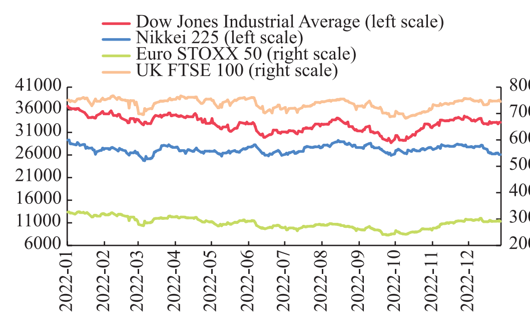
Figure 1.5 Yields on Government Bonds of Major Advanced Economies



Source: Wind.

Stock markets in major advanced economies fluctuated downwards. There was a sell-off of risky assets such as stocks in major advanced economies on the back of growing fears about the economic prospects and market liquidity and rising risk aversion. At end-September, the Dow Jones Industrial Average and the Euro STOXX 50 both plunged by more than 20 percent from highs earlier in the year. But in the fourth quarter, as inflation showed signs of peaking and market sentiments improved, the two major indices jumped by 15.4 percent and 14.3 percent respectively over end-September, and fell by 8.8 percent and 11.7 percent respectively for the whole year. The Nikkei 225 tumbled by 9.37 percent in 2022, while the UK FTSE 100 closed at 7452 points at the year-end, almost flat compared with the beginning of the year (Figure 1.6).

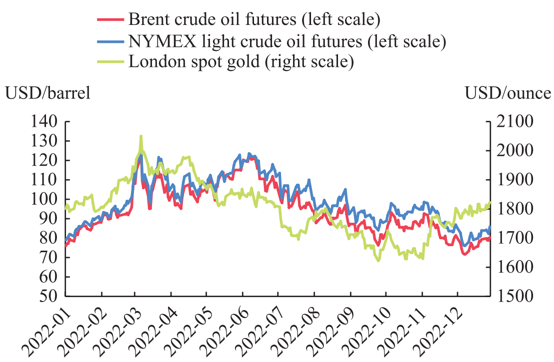
Figure 1.6 Movements of Major Stock Indices



Source: Wind.

Commodity prices were highly volatile. Geopolitical tensions, persistently high inflation, and rapid rate hikes by central banks in the major economies heightened the volatility of the commodity market in 2022. The prices of energy, metals, and agricultural products surged in the wake of Russia-Ukraine conflict. Oil prices remained higher than that in 2021 despite a fall from the peak in March. As of end of 2022, the price of London Brent crude oil futures and NYMEX light crude oil futures jumped by 10.5 percent and 6.7 percent respectively compared with a year ago. The prices of corns and wheat increased by 2.8 percent and 14.4 percent respectively compared with end of 2021. The price of gold did not move sharply, and the spot gold price closed down by 0.3 percent from end of 2021 (Figure 1.7).

Figure 1.7 Movements of Gold and Crude Oil Futures Prices in the International Markets



Source: Wind.

3. Risks and Challenges

High inflation, rate hikes, and geopolitical tensions have heightened the uncertainties of global economic outlook. According to the IMF forecast in October 2023, the global economy was projected to grow by 3.0 percent in 2023, the same as its July forecast, and to grow by 2.9 percent in 2024, revised down by 0.1 percentage point from the July forecast. The 2023 and 2024 growth forecasts for advanced economies were 1.5 percent and 1.4 percent respectively, while those for emerging market and developing economies were both 4.0 percent. Going forward, the global economy may face the following risks and challenges.

Geopolitical tensions may persist. They may have ramifications for economic and financial developments through trade, investment, financial markets and other channels. Economic and financial considerations are giving way to political and security considerations. This growing trend has disrupted global economic and trade order as well as the safety of supply chains.

The U.S. and European banking turmoil have increased the risk to financial stability. The lagging effects of massive monetary policy tightening by the major advanced economies started to be felt since March 2023. The risk of U.S. and European banks were exposed, and the volatility of global financial markets increased. Although poor management is the direct cause for the bankruptcy of the Silicon Valley Bank and the take-over of Credit Suisse, their crises have also exposed some deep-rooted problems. Simple customer structure, rising financing costs, and worsening asset quality have put much pressure on small- and medium-sized U.S. banks amid higher interest rates. If market confidence is shaky, even small risk events may rapidly develop into liquidity shocks. Faced with liquidity strains, some banks may be forced to sell securities. However, securities held by some banks suffer huge book losses due to rapid rate hikes. Once securities sold, these losses will be materialized. In addition, risk events have weakened risk appetite in the market. Tighter credit standards by banks may increase the likelihood of recession in the advanced economies.

Central banks in the advanced economies face a hard trade-off between price stability and financial stability. The major advanced economies started to raise rates forcefully in March 2022 to rein in inflation. Tightening global financial conditions have dealt a blow to the real economy and financial markets. However, inflation this time around is quite sticky. If the major advanced economies continue to hike rates, financial vulnerabilities may increase and threaten financial stability. If they suspend rate hikes, inflation may be more persistent.

The debt risks of some emerging market and developing economies have increased. Against the backdrop of tighter global financial conditions and weak economic growth, some emerging market and developing economies face economic slowdown, dwindling foreign exchange reserves, worsening current accounts, high levels of debts, and limited policy space. Therefore, their debt sustainability is at stake. Argentina, Sri Lanka, and Ghana are already in debt distress. Some economies may face default risk from 2023 to 2025, according to estimates by the IMF.

Global real estate market is under pressure. Tighter financial conditions have reverberated through global real estate market. On the residential property market, the substantial increase in mortgage rates, coupled with elevated housing prices, has cooled down housing demand. In some economies, household debts have remained high since long, and volatile housing prices may further increase household default risk. On the commercial property market, the sharp rise in market rates has triggered the decline in commercial property prices. In the meantime, rising uncertainties in economic outlook and liquidity crunch have prompted some banks in the U.S. and Europe to tighten their lending standards for the commercial property sector. Some heavily-indebted commercial property investors may face higher financing pressures down the road.

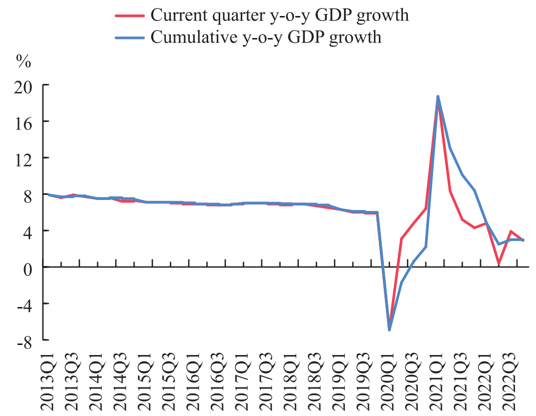
II. Domestic Macroeconomic Performance

China faced multiple unexpected internal and external shocks such as the Covid-19 pandemic in 2022. Against this backdrop, all regions and government agencies efficiently coordinated Covid-19 response and social and economic development, optimized responding measures when needed, firmly promoted supply-side structural reforms, and rolled out a package of pro-growth policies and follow-up measures. All these efforts have provided a strong support for stabilizing the macro economy. The aggregate economic output has hit a new high and high-quality development has seen new achievements.

1. The Macroeconomic Performance Remained Stable, and the Industrial Development Proved Resilient

In 2022, China's GDP registered RMB121.02 trillion, increasing by 3.0 percent year on year based on comparable prices. The year-on-year growth rate for each quarter was 4.8 percent, 0.4 percent, 3.9 percent and 2.9 percent respectively (Figure 1.8). Breakdown by industry shows that the added value of the primary industry grew by 4.1 percent over a year earlier to RMB 8.83 trillion, that of the secondary industry gained by 3.8 percent over the prior year to RMB 48.32 trillion, and that of the tertiary industry was up by 2.3 percent from 2021 to RMB 63.87 trillion. When compared with 2021, the added value of the primary industry as a share of GDP edged up by 0.1 percentage point to 7.3 percent, that of the secondary industry increased by 0.6 percentage point to 39.9 percent, and that of the tertiary industry dropped by 0.7 percentage point to 52.8 percent.

Figure 1.8 China's Economic Growth



Source: The NBS.

Box 1 Analysis of the Changes and Structure of China's Macro Leverage Ratio

The macro leverage ratio, or the ratio of outstanding debt of the non-financial sector to the GDP, is an effective measurement of the debt financing size and structure in relation to the economic development. It provides important policy inputs for financial risk prevention and mitigation measures, and for financial stability efforts. China's macro leverage ratio rose temporarily in 2022, but its structure continued to improve, reflecting efforts to stabilize the macro economy through countercyclical policy adjustments amid unexpected shocks to the Chinese economic growth.

I. Macro Leverage Ratio in China

The growth of China's macro leverage ratio has slowed down since 2017. Its annual average increase was 4.6 percentage points during the five years from 2017 to 2021, 8.8 percentage points lower than that of the preceding five years from 2012 to 2016. The slower growth created hard-won policy space to address future shocks.

The change in China's economic growth rate has had a bigger impact on the macro leverage ratio in recent years. Being the denominator for calculating the macro leverage ratio, the nominal GDP growth has an important bearing on the macro leverage ratio. Since the outbreak of the COVID-19 pandemic in 2020, China's macro leverage ratio has seen some fluctuations, mainly due to a more volatile economic growth rate. The GDP contracted by 1.7 percent in the first half of 2020 due to the pandemic. As a result, the macro leverage ratio went up temporarily. In 2021, the Chinese economy recovered fast, with a GDP growth rate as high as 13.0 percent in the first half-year. The macro leverage ratio fell accordingly. In 2022, the GDP growth decelerated somewhat due to unexpected shocks at home and abroad, leading to a temporary rise in the macro leverage ratio. According to preliminary estimates, China's macro leverage ratio stood at 281.6 percent at the end of 2022, up by 9.6 percentage points compared with the end of 2021. By breakdown, the leverage ratio of non-financial corporations (hereinafter referred to as the corporate sector) was 159.4 percent, up by 6.6 percentage points over the end of 2021, that of the government sector posted 50.4 percent, 3.6 percentage points higher than a year earlier, and that of the household sector registered 71.8 percent, down by 0.6 percentage point from end-2021.

II. A Rational Perspective on the Rebound in the Macro Leverage Ratio

The rebound in China's macro leverage ratio in 2022 is not only a truthful reflection of the Chinese economic trajectory as disrupted by unexpected shocks, but also a telling evidence of China's endeavor to stabilize the macroeconomic fundamentals through countercyclical policy adjustments.

First, unexpected shocks led to a slowdown in the real GDP growth. The Chinese economy was under downward pressures in 2022 amid multiple shocks at home and abroad including the recurrent pandemic. The real GDP grew by 3.0 percent in 2022, down by 2.3 percentage points compared with the two-year average growth from 2020 to 2021. According to preliminary estimates, China's macro leverage ratio increased by 9.6 percentage points in 2022, 18.3 percentage points more than the previous year. A slower real GDP growth contributed to around 80 percent of the acceleration of the year-on-year increase in the macro leverage ratio. Breakdown by quarter showed that the increase in the macro leverage ratio saw a marginal slowdown since May 2022 when the Chinese economy gradually stabilized and began to recover. The quarter-on-quarter increase in the macro leverage ratio was 4.7 percentage points, 0.4 percentage point and 0.2 percentage point in the second, third, and fourth quarter of 2022 respectively.

Second, the increase in price index slowed down, playing a weaker role in bringing down the macro leverage ratio. Price increase can generate a higher nominal GDP growth, and thus help lower the macro leverage ratio. The GDP deflator increased moderately by 2.2 percent in 2022, or 2.4 percentage points down compared with the prior year. According to preliminary estimates, about 33 percent of the acceleration of increase in the macro leverage ratio in 2022 could be explained by the fall in price increase.

Third, macroeconomic policies were forceful and effective with the right intensity, and the economic fundamentals were stabilized with controllable debt increments. The PBC implemented the sound monetary policy in a targeted and forceful manner in 2022 to address unexpected shocks. While stepping up financial support for the real economy, the PBC also prevented macro financial risks effectively. The fiscal policy was proactive and impactful, and policies like large tax and fee cuts were implemented. Thanks to these efforts, the debt growth of the non-financial sector in China was relatively under control. China's total outstanding debt rose by 9.0 percent at end-2022, down by 0.8 percentage point compared with end-2021. This historic low level of debt is conducive to maintaining a relatively stable macro leverage ratio. The Chinese economy has recovered steadily since May 2022, and economic growth recovered to a reasonable range while debt increments were under control.

III. The Structure of China's Macro Leverage Ratio Continued to Improve

1. The leverage ratio of the corporate sector rebounded, and the structure of leverage continued to improve

Firms are the cells of the economic functioning. They create jobs and opportunities for entrepreneurship for hundreds of millions of people. Therefore, the economic stability hinges on the stability of firms. In line with the decisions and deployment of the CPC Central Committee and the State Council and following the principle of pursuing progress while ensuring stability and prioritizing economic stability, the financial sector stepped up financing support for operating entities with focus on addressing their difficulties so as to stabilize employment and safeguard people's livelihood. At end-2022, the leverage ratio of the corporate sector was 159.4 percent, up by 6.6 percentage points compared with end of 2021 and accounting for 68.7 percent of the increase in the macro leverage ratio. In particular, the ratio of corporate loans to the GDP went up by 8.4 percentage points from the prior year, contributing over 100 percent to the increase in corporate leverage ratio. The structure of corporate leverage continued to improve. Medium- and long-term loans, short-term loans, and bill financing pushed up the corporate leverage ratio by 5.7 percentage points, 0.8 percentage point and 2.0 percentage points respectively. Off-balance sheet debt (including trust loans, entrusted loans, etc.) continued to shrink, and the off-balance sheet debt-to-GDP ratio was 1.3 percentage points lower than that at end of 2021.

2. The leverage ratio of the government sector was lower than other major economies, which created favorable conditions for offsetting economic downward pressures

At end of 2022, the leverage ratio of the government sector was 50.4 percent, up by 3.6 percentage points compared with end of 2021. It was lower than that in the US (103.1 percent), the euro area (88.7 percent), and Japan (228.0 percent), as well as the internationally acknowledged threshold of 60 percent. According to the 2022 report on the execution of budget, the government deficit was RMB 3.37 trillion, newly issued special local government bonds posted RMB 3.65 trillion, and the difference between special debt limit and outstanding special debt, registering RMB 502.9 billion, was well utilized. In the meantime, China strictly controlled the risk of government debt, while ensuring expenditure needed on key areas and driving effective investment, so as to offset economic downward pressures.

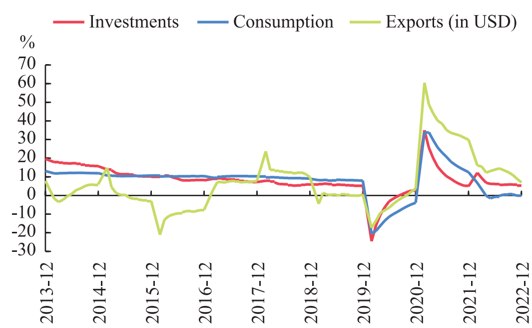
3. The recurrent pandemic affected household expectations, and the leverage ratio of the household sector declined slightly

At end-2022, the leverage ratio of the household sector in China was 71.8 percent, down by 0.6 percentage point compared with end of 2021, a net decline for two consecutive years. The decrease could be largely explained by the conservative approach taken by most residents amid more than two years of pandemic situation, who tend to borrow less and save more. At end of 2022, household debts grew by 4.4 percent year on year, down by 7.9 percentage points compared with that at end of 2021, decelerating for seven consecutive quarters since the first quarter of 2021, while household savings jumped by 17.3 percent year on year, up by 6.8 percentage points compared with that at end of 2021.

2. Investment Became the Main Driver of Growth, and the Balance of Payments was at an Equilibrium Level

In 2022, China's fixed asset investment (excluding those by rural households) stood at RMB 57.21 trillion, rising by 5.1 percent year on year, up by 0.2 percentage point compared with the growth in 2021. Total retail sales of consumer goods reached RMB 43.97 trillion, falling by 0.2 percent from 2021. Exports and imports of goods totaled RMB 42.07 trillion, rising by 7.7 percent year on year. In particular, exports jumped by 10.5 percent over the previous year to RMB 23.97 trillion, while imports went up by 4.3 percent from the prior year to RMB 18.10 trillion. The whole year ran a trade surplus of RMB 5.87 trillion, increasing by RMB 1.53 trillion compared with 2021 (Figure 1.9). In 2022, the contribution of final consumption expenditure, gross capital formation and net exports of goods and services to the GDP growth was 32.8 percent, 50.1 percent and 17.1 percent respectively, and they contributed 1 percentage point, 1.5 percentage points and 0.5 percentage point of GDP growth respectively.

Figure 1.9 Cumulative Changes of the Three Major Demands



Sources: The NBS and the General Administration of Customs.

In 2022, China ran a current account surplus of USD 401.9 billion or 2.2 percent of GDP, up by 0.2 percentage point compared with the prior year. The capital and financial account witnessed a deficit of USD 311.3 billion. In particular, non-reserve financial account ran a deficit of USD

211 billion, and reserve assets increased by USD 100 billion. At the end of 2022, China's foreign exchange reserves posted USD 3.13 trillion, down by 3.8 percent or USD 122.5 billion over the end of 2021.

Box 2 China's Cross-border Capital Flows in 2022

In 2022, in face of the complex and challenging economic and financial environment at home and abroad, China's current account posted a surplus, while the non-reserve financial account registered a deficit. The current account surplus was USD 401.9 billion, up 14 percent from 2021, basically on par with the historical peak. The current account to GDP ratio was 2.2 percent, and continued to remain within a reasonable range. The non-reserve financial account recorded a deficit of USD 211 billion. On the whole, China's balance of payments maintained a basic equilibrium, and cross-border capital flows were generally rational and orderly.

Direct investments continued to be in a net inflow status. In 2022, China's direct investments posted a surplus of USD 30.5 billion, maintaining an overall balance between the inbound and outbound direct investments. Specifically, the outbound direct investments reached USD 149.7 billion, the average level for the past three years, showing stable investment activities by "going global" enterprises. Inbound foreign direct investments totaled USD 180.2 billion, with more than 90 percent invested in the non-financial sector. China remains attractive to international long-term investors in terms of our solid industrial and supply chains and the enormous potential of the domestic consumer market.

Portfolio investments recorded a deficit, with net outflows significantly narrowing in the fourth quarter. In 2022, portfolio investments posted a deficit of USD 281.1 billion. The net outflows in the four quarters registered USD 79.6 billion, 78.3 billion, 104 billion and 19.3 billion respectively. The net outflows in portfolio investments caused by short-term market fluctuations did not change the overall balanced pattern of China's cross-border capital flows. Specifically, China's outbound portfolio investments reached a record high of USD 173.2 billion, and net outflows of inbound portfolio investments totaled USD 107.9 billion. By quarters, the net outflows of inbound portfolio investments in China remained generally stable from the first to the third quarter. With the adjustment of the pandemic prevention and control measures, and various pro-growth policies taking effect, China's economic recovery was further consolidated. Since November 2022, net inflows of portfolio investments in China have resumed.

Other investments were generally balanced. In 2022, other investments recorded a surplus of USD 45.4 billion. Specifically, China's other outbound investments showed a net inflow of USD 138.6 billion, offsetting capital outflows from some other channels, and contributing to a better balance of cross-border capital flows. The other inbound investments to China showed a net outflow of USD 93.2 billion, including a net outflow of USD 52.8 billion of non-residents' deposits.

China's external financial assets and liabilities remained at a relatively high level. By end of 2022, China's external financial assets reached USD 9.26 trillion, and external liabilities USD 6.73 trillion, which stayed at a relatively high level. The net external assets were USD 2.53 trillion, up 15.8 percent from end of 2021, making China the third largest net creditor country in the world. Among China's external financial assets, the reserve assets amounted to USD 3.31 trillion; direct investment assets amounted to USD 2.80 trillion, accounting for 30 percent of the total asset, up 0.9 percentage point from end of 2021; securities investment assets amounted to USD 1.03 trillion, accounting for 11 percent, up 0.9 percentage point from end of 2021; other investment assets, such as deposits, loans, trade credits, etc., amounted to USD 2.09 trillion, accounting for 23 percent, down 1.7 percentage points from end-2021. Among China's external liabilities, foreign direct investments amounted to USD 3.50 trillion, accounting for 52 percent of total external liabilities, up 2.8 percentage points from end of 2021, reflecting foreign investors' strong willingness to make long-term investments in China. Portfolio investment liabilities amounted to USD 1.78 trillion, accounting for 26 percent and down 2.8 percentage points form end of 2021. Other investment liabilities such as deposits and loans amounted to USD 1.43 trillion, accounting for 21 percent, and down slightly by 0.2 percentage point from end of 2021.

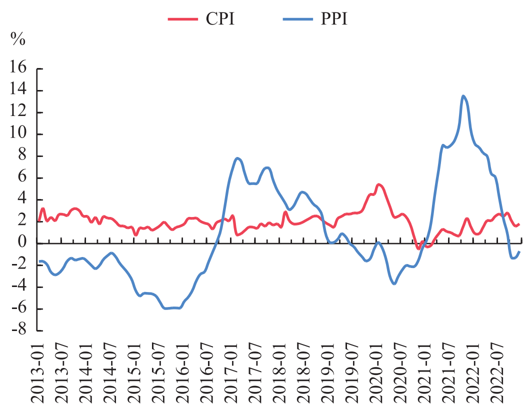
In 2023, the external environment has remained complex and volatile, and the momentum for global economic growth has weakened. The pace of monetary policy adjustment in major developed economies has generally slowed down, and uncertainties remain in the international financial markets. Domestically, China has accelerated its efforts to build a new development pattern that focuses on high-quality development, press ahead with high-level opening-up, and improve economic conditions. This will provide a more solid foundation and favorable conditions for the cross-border payments to maintain an equilibrium, with more stable cross-border capital flows.

3. The CPI Increased Moderately, While the PPI Growth Decelerated

In 2022, the CPI rose by 2.0 percent year on year, up by 1.1 percentage points compared with 2021. During the four quarters, it increased by 1.1 percent, 2.3 percent, 2.6 percent and 1.8 percent respectively year on year. By breakdown, food prices went up by 2.8 percent compared with a decline of 1.4 percent in 2021, while non-food prices rose by 1.8 percent, 0.4 percentage point higher compared with the previous year. Consumer goods prices climbed up by 2.7 percent, up by 1.8 percentage points from the prior year, whereas services prices edged up by 0.8 percent, down by 0.1 percentage point from 2021. The core CPI excluding food and energy was up by 0.9 percent, 0.1 percentage point higher than that in 2021.

In 2022, the PPI was up by 4.1 percent year on year, 4.0 percentage points lower than that of 2021. During the four quarters, it went up by 8.7 percent, 6.8 percent, 2.5 percent, and −1.1 percent respectively year on year (Figure 1.10). By breakdown, producer prices for consumer goods rose by 1.5 percent, up by 1.1 percentage points from that in 2021, while producer prices for means of production jumped by 4.9 percent, 5.8 percentage points lower than the growth in 2021. The Purchasing Price Index of Raw Materials, Fuel and Power (PPIRM) was up by 6.1 percent, 4.9 percentage points lower than that of 2021. It increased by 11.3 percent, 9.5 percent, 4.4 percent and 0 percent respectively year on year during the four quarters.

Figure 1.10 Monthly Movements of Major Price Indices



Source: The NBS.

4. Revenues of Industrial Firms Kept Increasing, and the Liabilities-to-Assets Ratio Dropped

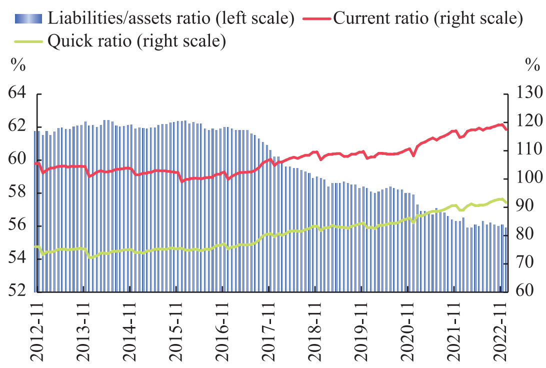
In 2022, the business revenues of industrial firms above designated size grew by 5.9 percent year on year to RMB 137.9 trillion, while the business costs went up by 7.1 percent compared with 2021 to RMB 116.8 trillion. They reported a total profit of RMB 8.4 trillion, falling by 4.0 percent year on year. The profit margin was 6.09 percent, down by 0.64 percentage point from a year ago[①]. Among the 41 industrial categories, 21 made more profits compared with the previous year, whereas 19 industries witnessed a decline in profits, and one previously profitable industry started to make a loss.

According to the survey of 5000 industrial firms conducted by the PBC, the main business revenues of sample firms kept increasing and their total profits dropped moderately. The main business revenues of 5000 industrial firms went up by 4.8 percent year on year in 2022, while their total profits declined by 6.1 percent from the previous year. In terms of asset turnover, the total asset turnover ratio of sample firms was almost the same as that in 2021, whereas the inventory turnover ratio fell slightly. The operating cycle was prolonged. In 2022, the total asset turnover ratio of these 5000 firms was 0.8, almost on a par with that in 2021, while their inventory turnover ratio fell by 0.1 from the previous year to 5.9. The operating cycle was extended by 3.7 days compared with a year earlier to 121.4 days. In terms of solvency, the

① According to the NBS, the 2021 financial data of industrial firms above designated size are calculated on a comparable basis, taking into consideration adjustment in statistical coverage, improved statistical survey, deletion of overlapping data and other factors.

liability-to-asset ratio of sample firms dropped, and their solvency improved. The liabilities-to-assets ratio of sample firms fell by 0.4 percentage point from end - 2021 to 55.9 percent at end of 2022. The current ratio and quick ratio were 117.2 percent and 91.4 percent respectively, up by 2.5 percentage points and 2.4 percentage points compared with end of 2021 (Figure 1.11). The interest coverage multiplier was 9.1 times, up by 0.4 time compared with end of 2021.

Figure 1.11 Liabilities/Assets Ratio, Current Ratio and Quick Ratio of 5000 Industrial Firms

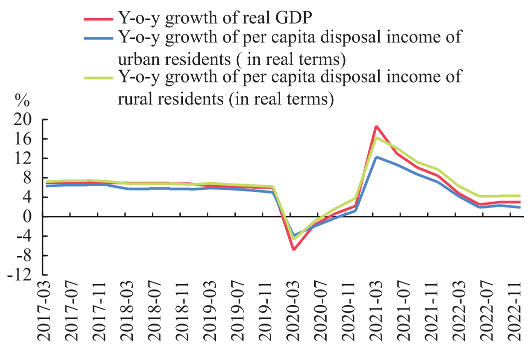


Source: The PBC.

5. Employment Remained Stable and the Income Disparity Between Urban and Rural Residents Further Narrowed

In 2022, 12.06 million new jobs were created in urban areas, 0.63 million less compared with that in 2021. The national surveyed urban unemployment rate was 5.5 percent at end of 2022, down by 0.4 percentage point compared with end of 2021. The per capita disposal income was RMB 36883, growing by 2.9 percent after being adjusted for inflation, 5.2 percentage points lower than that of 2021. By breakdown, the per capita disposal income of urban residents was RMB 49283, an increase of 1.9 percent in real terms, while that of rural residents was RMB 20133, a gain of 4.2 percent in real terms (Figure 1.12). The urban-to-rural per capita disposal income ratio was 2.45, narrowing by 0.05 compared with the previous year.

Figure 1.12 Growth of Per Capita Disposable Income of Urban and Rural Residents and GDP



Source: The NBS.

6. Real Estate Sales Declined Compared with a Year Ago, and the Growth of Real Estate Loans Decelerated but Remained Stable

Real estate sales dropped compared with the previous year, and house prices declined. Due to the confluence of factors such as resurgence of Covid-19 pandemic, China's real estate market underwent some adjustments in the first half of 2022, and improved moderately in the second half. Total housing sales posted RMB 13.33 trillion with a floor area of 1.358 billion square meters, down by 26.7 percent and 24.3 percent respectively from the prior year. In particular, the floor area of residential property sold fell by 26.8 percent year on year to 1.146 billion square meters. The prices of new and preoccupied residential housing in 70 large- and medium-sized cities dropped by 2.3 percent and 3.8

percent respectively in December 2022 compared with a year ago.

The growth of real estate loans slowed down but remained stable. Outstanding real estate loans grew by 1.5 percent year on year to RMB 53.2 trillion at end of 2022, 6.5 percentage points lower than the growth in 2021. Outstanding real estate development loans increased by 3.7 percent from the previous year to RMB 12.7 trillion, up by 2.8 percentage points compared with that in 2021, while outstanding mortgage loans posted RMB 38.8 trillion , rising by 1.2 percent from the prior year, 10 percentage points lower than the growth in 2021.

III. Outlook

In 2023, the financial sector will continue to follow the guidance of Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era, and fully implement the guiding principles of the 20th CPC National Congress, the Central Economic Work Conference, and the Central Financial Work Conference. It will stick to the general principle of pursuing progress while ensuring stability, fully and faithfully apply the new development philosophy on all fronts, and expedite the fostering of a new development pattern. It will focus on promoting high-quality development, comprehensively deepen reform and opening up, strive to boost market confidence, and make sure that the implementation of the strategy to expand domestic demand is integrated with efforts to deepen supply-side structural reforms. It will prioritize the work on stabilizing growth, employment and prices, take effective measures to forestall and defuse major risks, and promote sustainable economic recovery, so as to effectively upgrade and appropriately expand China's economic output.

China will continue with proactive fiscal policy and sound monetary policy. It will prioritize stability and pursue progress while ensuring stability, amplify macroeconomic policy adjustments, and better coordinate different policies to forge pro-high-quality development policy synergy. The proactive fiscal policy will grow in intensity and effectiveness. China will keep up necessary fiscal spending, optimize the mix of fiscal tools such as deficit, special government bonds and interest subsidies, and improve policies on tax and fee cuts. The sound monetary policy will become more targeted and forceful. The PBC will keep liquidity adequate at a reasonable level, and keep the increases in broad money supply and social financing generally in step with nominal economic growth. Structural monetary policy tools will focus on supporting key areas with the right policy intensity and an exit plan so as to guide financial institutions to step up financial services for micro and small businesses, scientific and technological innovation, green development, and other key areas and weak links. China will continue to harness policy and development financial tools and better leverage effective investment.

China will further optimize the institutional arrangements for the financial sector to effectively support the real economy. It will continue with the campaign on improving the capacity to provide financial services to micro-, small-, and medium-sized enterprises, and keep improving the quality and efficiency of financial services for micro and small businesses. It will focus on the priorities in rural vitalization, improve financial services for the production of grain and other key agricultural products, and provide sustained support for promoting rural vitalization on all fronts. The PBC will foster a virtuous circle between finance and the real estate market. It will improve the macroprudential management of real estate finance, work to ensure timely delivery of presold housing, protect people's livelihood, and ensure stability, meet reasonable real estate financing needs, and promote restructuring as well as merger and acquisition in the real estate sector. It will leverage the toolkit by taking into account city-specific circumstances, better support people in buying their first houses or improving their housing situation, and ensure the smooth development of the real estate market.

Efforts will be made to deepen financial sector reform and opening up. China will continue with the reform of policy and development financial institutions so that they could stay focused on their main business and better support economic restructuring and high-quality development. It will promote the reform of rural credit cooperatives in a tailored and steady fashion. It will improve functions of the capital market so as to enhance the quality and efficiency in supporting key national strategies. The PBC will expand the pilot of macroprudential management and the management of outstanding financial bonds, promote the development of over-the-counter bond business, improve bond underwriting and market-making mechanisms, double the efforts to investigate and punish violations of laws and regulations on the bond market, and firmly promote the reform and opening up of the bond market. The PBC will advance the international use of RMB in a steady and prudent manner, and expand the use of RMB in cross-border trade and investment. In the meantime, it will steadily push forward the RMB capital account convertibility and the institutional opening up of financial markets. The PBC will continue to deepen foreign exchange reform and opening up, support regional opening up and innovation, and advance the pilot of high-standard opening up of cross-border trade and investment.

Measures should be taken to strengthen financial risk prevention and control, and promote the development of a long-term mechanism for maintaining financial stability. The PBC will further improve the macroprudential policy framework, expand the policy toolkit, and improve the regulation of systemically important financial institutions. It will pay close attention to the risks in key areas, continue to uphold the principles of ensuring overall stability, strengthening coordination, adopting a differentiated approach and defusing risks with precision, and strike a good balance between development and security. It will tighten accountability for financial risk resolution, reduce existing risks, and strictly control new risks. The PBC will expedite the development of systems that safeguard financial stability, and improve the legislation on financial stability and institutions on the management of the financial stability guarantee fund. It will further improve the long-term mechanism for forestalling, defusing and disposing of financial risks, and institutionalize the market-oriented and law-based resolution mechanism. It will work to early identify, warn, expose and dispose of risks, and strengthen the mandatory prompt correction mechanism for financial risk. The PBC will tap into the deposit insurance scheme which deals with risks in line with market principles and rule-of-law, and will support the efforts to defuse the risks in key regions and institutions. It will improve the financial risk accountability mechanism, and hold those who trigger major financial risks accountable, so as to effectively prevent moral hazard. The PBC will continue to improve financial risk monitoring, early warning and resolution systems in line with the structural shifts in the balance sheet of financial institutions as well as new trends in financial market structure and evolution. It will build upon the traditional financial risk monitoring, early warning and resolution systems centered on credit assets and develop new ones that focus on non-credit assets, new types of financial institutions, and new financial market products. It will also follow closely the risks of digital finance and fintech innovations.

Chapter II

Banking Sector

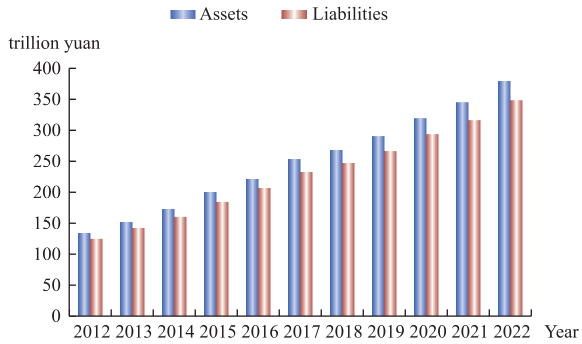
In 2022, China's banking sector effectively provided financial supports for key areas and weak links of the real economy, continuously contributed to the reform and opening-up, and effectively prevented and mitigated major financial risks. Banking financial institutions operated steadily, with sustained growth in assets and liabilities, stable capital adequacy level, improved asset quality and adequately sufficient liquidity.

I. Banking Sector Performance

1. Assets and liabilities grew steadily, and the industrial structure remained stable

Assets and liabilities grew steadily. At end-2022, total assets of banking institutions registered RMB 379.39 trillion, up 10.04 percent year on year, an acceleration of 2.05 percentage points from the previous year; and total liabilities registered RMB 348.00 trillion, up 10.38 percent year on year, an acceleration of 2.65 percentage points from the previous year (Figure 2.1). In particular, the six large state-owned commercial banks and city commercial banks accounted for 41.19 percent and 13.15 percent of the total banking sector assets respectively, up 1.04 percentage points and 0.08 percentage point from the previous year; and joint-stock commercial banks and rural financial institutions accounted for 17.52 percent and 13.18 percent of the total banking sector assets respectively, down 0.52 percentage point and 0.07 percentage point from the previous year.

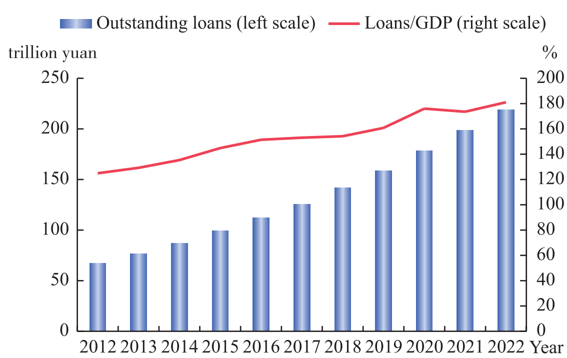
Figure 2.1 Assets and Liabilities of Banking Institutions



Source: The former CBIRC.

Deposits maintained steady growth, while the growth of loans slowed down. At end-2022, total deposits denominated in both domestic and foreign currencies in banking financial institutions stood at RMB 264.45 trillion, an increase of 10.83 percent year on year and an acceleration of 1.57 percentage points from the previous year; and outstanding loans denominated in both domestic and foreign currencies by banking financial institutions stood at RMB 219.10 trillion, an increase of 10.37 percent and a deceleration of 0.9 percentage point from the previous year (Figure 2.2). By maturities, medium and long-term loans registered RMB 142.77 trillion, up 10.59 percent year on year, of which loans to enterprises and public institutions

Figure 2.2 Outstanding Loans Denominated in Both Domestic and Foreign Currencies by Banking Institutions



Source: The PBC and NBS.

registered 86.23 trillion, up 14.49 percent year on year. By entity type, the six state-owned commercial banks and China Development Bank saw their aggregate RMB deposits and loans increasing by 13.31 percent and 13.16 percent year on year respectively, outperforming that of the remaining banks, who grew by 10.79 percent and 10.49 percent year on year respectively.

The industrial structure of the banking sector remained stable. At the end of 2022, among the financial institutions covered by the Central Bank Rating, there were 125 city commercial banks, 19 privately-owned banks, 1604 rural commercial banks, 23 rural cooperative banks, 513 rural credit cooperatives, and 1645 village and township banks. Two new direct banks were set up. The assets of small and medium-sized banks accounted for nearly 25 percent of the total banking sector assets, roughly the same as the previous year.

Box 3 Essential Functions of the Deposit Insurance are Further Utilized

Since the implementation of the *Deposit Insurance Regulations* in May, 2015, the deposit insurance system has operated in a stable and orderly way, with the functions of preventing bank runs, risk management, prompt corrections and market-oriented risk resolution gradually being carried out, and its pillar status in the financial safety net being continuously enhanced, so as to effectively strengthen the general public's confidence in the banking sector.

Deposit insurance coverage remains high, and the proportion of deposits in small- and medium-sized banks registers a stable increase. As of end-2022, there were 3998 insured financial institutions nationwide, and the maximum balance to be insured is RMB 500000 per depositor per bank, which can provide full guarantee for 99.3 percent of depositors. Thanks to the relatively high insurance level, the deposit market remains generally stable, and the proportion of deposits in small- and medium-sized banks registered a stable increase. As of end-2022, the total deposits in small- and medium-sized banks amounted to RMB 128 trillion, up by 94 percentage points compared with that in 2015 when the *Deposit Insurance Regulations'* came into effect, and accounted for 51 percent of the total deposits of all the banks, up by 3 percentage points compared with that in 2015.

Carrying out the off-site monitoring and on-site inspection, and playing the role of risk-based differentiated deposit insurance premium in improving incentives and constraints. Since the implementation of risk-based differentiated deposit insurance premium system in 2016, the PBC has been exploring to improve the risk identification, assessment and early warning indicator system, enhancing on-site inspection of key financial institutions, and conscientiously making the premium rates more proportional to risk profiles. Issues of insured financial institutions such as irrational pricing of deposits, weak corporate governance, insider control, etc. have been reflected accordingly in the premium rates, and insured financial institutions have been guided to operate prudently by rewarding the good ones while punishing the bad. According to the on-site inspection of insured financial institutions, the premium rates of more than 200 insured financial institutions were raised in 2022, and the current differentiated deposit insurance premium system properly reflects the real risk profiles of each insured financial institution.

Inter-agency synergy promotes risk resolution, and prompt corrective actions begin to show effectiveness. Since 2017, the deposit insurance management authority has been actively exploring the way to fulfill its prompt corrective mandates in accordance with the law. In 2022, the deposit insurance management authority further improved the working mechanism in terms of monitoring and inspection, risk reporting, prompt corrections, promotion of risk resolution as well as strict prevention of risk rebound, and shared risk information with local governments, relevant regulatory authorities and other authorities for a total of more than 200 times. By urging insured financial institutions to take timely measures such as replenishing capital, controlling the growth of assets, restricting the granting of credits for major transactions, and reducing the leverage ratio, risks of 91 problem financial institutions had been preliminarily addressed. Meanwhile, the deposit insurance system continues to play a market-oriented and law-based risk resolution function, participating in the risk resolution of relevant financial institutions in accordance with the law.

Making education campaigns on deposit insurance on a regular basis and effectively preventing the risk of bank runs. The PBC solidly pushes forward the education campaigns on deposit insurance, works hard to prevent bank runs, improves the working mechanism, and instructs financial institutions to conduct education campaigns with the focus on remote rural areas, regions with fragile financial ecosystems and other key areas, and enhance the ability to prevent and deal with emergencies. In 2022, all kinds of publicity activities were carried out nationwide, covering 150 million people and 512000 administrative villages and communities, and guiding 240000 business outlets to incorporate the deposit insurance publicity programs into their business lines, so as to effectively reduce the possibility of bank runs resulted from rumors.

2. Continuously deepening the banking sector reform

Continuously deepening the reform of policy and development financial institutions. Efforts were made to promote policy and development financial institutions to fully implement reform plans, which not only clarified their mandates and business boundaries, adopted business classification and separated accounting management, but also enhanced their corporate governance and constraint mechanism, and encouraged them to better support the economic structural transformation and high-quality growth on the basis of enhanced risk prevention and control.

Further deepening the reform of rural credit cooperatives. Works have been done to support relevant provinces to develop reform plans in accordance with their local conditions following market-oriented and law-based principles, to promote the post-reform provincial-level institutions to duly perform their roles in serving local communities and "agriculture, rural areas and rural residents", and to guide them to become modern financial institutions specialized in agriculture and small business lending. Following the approval of reform plans of Zhejiang, Liaoning, Shanxi, Henan, Guangxi and Hainan provinces, Zhejiang Rural Commercial United Bank, Liaoning Rural Commercial Bank, and Henan Rural Commercial United Bank were established.

Promoting local governments to issue special bonds to replenish capital of small and medium-sized banks. The Ministry of Finance supported the allocation of special bond quotas to relevant provinces, and some provinces have completed the issuance.

Box 4 The Performance and Reform of Rural Credit Cooperation Institutions

Rural Credit Cooperation Institutions (RCCIs for short hereafter, including rural commercial banks, rural cooperative banks and rural credit cooperatives) were important components of Chinese financial system, playing a pivotal role in providing financial services to the rural areas. It's strategically important to deepen the reform of RCCIs, so as to improve and enhance financial services in the counties, better contribute to the big picture of promoting agricultural development, increasing farmers' wealth and maintaining rural area stability, as well as to achieve rural revitalization and common prosperity for the society.

I. Performance of RCCIs

In 2003, the reform of RCCIs was launched, abolishing the village- or town-based legal entities and establishing the county- or city-based unified legal entities. Meanwhile, the administrative mechanism of the RCCI sector was restructured, authorizing provincial governments with the mandate in managing and resolving risk of local RCCIs. Since then, the provincial rural credit cooperative unions have been founded in 25 provinces (or Autonomous Regions), with capital contributed by all the member RCCIs within the provinces or regions, performing the duties in the management, guidance, coordination and services for member RCCIs. In the 4 municipalities directly under the Central Government including Beijing, Shanghai, Tianjin and Chongqing, rural commercial banks were organized on the unified legal entity basis. In Ningxia Hui Autonomous Region, the Yellow River Rural Commercial Bank was formed, which held the shares of all the local RCCIs and managed member RCCIs through shareholding connections.

The goals of the reform have been fulfilled, with the performance and management of RCCIs improved apparently, and the capacity of RCCIs serving county economic development greatly enhanced. Designed with the incentive of offering central bank funding support for better performing RCCIs, the reform objective of "paying money for building sound business model" has been achieved successfully. As of the end of 2022, there were 2142 RCCIs (including 1604 rural commercial banks, 515 rural credit cooperatives and 23 rural cooperative banks).By the end of 2022, their total assets increased by 9.9 percent year on year to RMB 47.8 trillion yuan, total liabilities increased by 10.3 percent year on year to RMB 44.4 trillion yuan, total deposits increased by 11.5 percent year on year to RMB 37.5 trillion yuan, and total loans increased by 10.2 percent year on year to RMB 26.2 trillion yuan. Non-performing loan ratio reached 3.48 percent, the capital adequacy ratio reached 12.02 percent and the annual net profits for the RCCIs nationwide reached RMB 218.8 billion yuan in 2022.

II. Rationale of Deepening the Reform of RCCIs

RCCIs have been playing a key role in supporting the development and stability of rural finance. After years of close cooperation among financial regulators and local governments to push forward the reform of RCCIs, significant progress has been achieved. Overall, the risks of RCCIs are manageable at the current stage, but relevant issues and risks, resulting from a combination of historical, cyclical and institutional factors, need to be further addressed. **First,** the role of the provincial rural credit cooperative unions was not clear. Under the current institutional arrangements, the gap in functions, as well as inappropriate and insufficient management by the provincial rural credit cooperative unions co-existed, with obvious inconsistency or mismatch between powers and obligations. In some cases, the provincial unions even overstepped into the management and operation of member RCCIs. **Second**, corporate governance was weak for RCCIs. Despite that the modern corporate governance structure had been introduced by the RCCIs, the unsound shareholding structure of some RCCIs led to the lack of effective checks and balances in corporate governance arrangements, causing the problems of internal control and illegal manipulation by external parties. In some RCCIs, major shareholders used these institutions as an ATM to extract funds. **Third,** the RCCIs have deviated from their major role in supporting the agriculture, rural areas, farmers and small enterprises. Far from their market position of feeding the financial needs of the agricultural sector, some RCCIs offered large amount of loans to non-agricultural clients, pooled the funds for large borrowers, and engaged in financial market businesses in an unappropriate way, in order to expand in size rapidly.

III. Practices and Efforts in Reform and Risk Mitigation of RCCIs

The CPC Central Committee and State Council highlighted the work of furthering the reform of RCCIs under the new economic development situation. The No. 1 central document of 2022 required to accelerate the reform of RCCIs to improve the governance of provincial rural credit cooperative unions and resolve risks steadily and in an orderly manner. The No. 1 central document of 2023 also required to accelerate the reform and risk disposal of RCCIs. To fully implement the decisions and deployments of the Central Committee of CPC and State Council, relevant agencies carefully reviewed the relevant issues and took the reform measures as follows. **First,** to further the reform of the governance mechanism of provincial rural credit cooperative unions on the individual provincial basis. Considering the local circumstances, provincial administration offices of the Government and the Party may choose among several options, including reforming the unions into rural commercial united banks with restricted licenses, or establish the fully-licensed unified legal entity rural commercial banks, or allowing the provincial rural credit cooperative unions to coexist with several rural commercial banks. The modern enterprise system for financial institutions should be set up in provincial unions, with their original duties in management, guidance, coordination and services for member RCCIs further clarified or reorganized into the mandates of strengthening the leadership by the Communist Party, clarifying the shareholding structure, providing services for all the local RCCIs, as well as further enhancing the risk management capacity of the sector. It is envisioned that the duties, powers, and responsibilities of the provincial rural credit cooperative unions should be given with checks and balances, so that they behave in a sound manner. **Second,** the reform of the city- or county-based rural credit cooperatives will be strengthened. Regulation and supervision will be strengthened in the areas of supervision on shareholders, corporate governance improvement, as well as restriction on related-party transactions, large credit exposures and operations outside the local areas. City- or county-based rural credit cooperatives will be required to improve risk management, capital planning and performance-driven compensation systems. In terms of the senior management team selection, the RCCIs should adhere to the standard of choosing banking professionals with relevant expertise and management experiences as well as the right political value, so that their senior management can satisfy the need to improve performance and to work in line with supervisory requirements. **Third,** the functions of RCCIs to provide support to economic development should be further strengthened. The funding and loans of RCCIs should mainly come from and be used in the local areas in small amount and in dispersion, adhering to their position of serving the agricultural sector and small enterprises, supporting the rural revitalization strategy, and continuously improving the supply of financial products and services. Large- and medium-sized banks are encouraged to participate in the mergers and acquisitions of RCCIs, or to provide the support to such activities in expertise, technology and management, in order to facilitate the digitization of RCCIs and lift their competitiveness in services. **Fourth**, the overall competitiveness and capabilities to adapt to the market changes of the RCCIs should be lifted. With the replacement of administrative management relationships by shareholding connections formed through the market forces, the provincial legal entities and city-level legal entities will become more tied to each other, which will help to stimulate the willingness and impetus of provincial legal entities to perform relevant duties, as well as to share the common interests with the city-level rural credit cooperatives through same incentives and supplementary functions. The overall capacity and quality of RCCI services to support rural revitalization will therefore be lifted to an upper level.

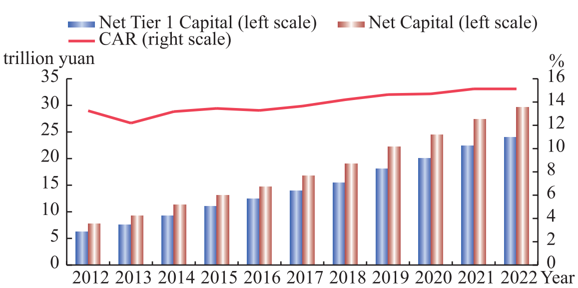
Since 2022, the reform of RCCIs accelerated greatly. The reform and risk resolution plans of Zhejiang, Liaoning, Shanxi, Henan, Guangxi and Hainan provinces have been approved by the State Council. Zhejiang Rural Commercial United Bank, Liaoning Rural Commercial Bank and Henan Rural Commercial United Bank have been established. The Shanxi Rural Commercial United Bank has been approved to be set up. The organization of provincial legal entities of RCCIs was also launched and pushed forward by the local governments in Guangxi and Hainan. For the remaining areas, the reform and risk disposal plans of RCCIs are under discussion and review.

For the next step, in line with the principle of addressing the deficiencies and achieving the targets, the financial management authorities will firmly implement the decisions and deployments of the central committee of CPC and State Council, and work closely with the provincial administrative offices of the Government and the Party, to facilitate the reform of the RCCIs on the individual province basis. Efforts will be made to incorporate the risk mitigation measures into the reform and restructuring plans, and remove the institutional barriers hindering the healthy operation of RCCIs, so as to promote their high-quality development, and to deliver financial resource support to the rural revitalization process in a stronger position.

II. Soundness Assessment

Capital adequacy level was generally stable. At end of 2022, the CET-1 ratio of commercial banks was 10.74 percent, down 0.04 percentage point year on year; the Tier 1 capital ratio was 12.30 percent, down 0.05 percentage point year on year; and the CAR stayed at 15.17 percent, up 0.04 percentage point year on year. The capital adequacy level was above regulatory requirements and remained generally stable (Figure 2.3).

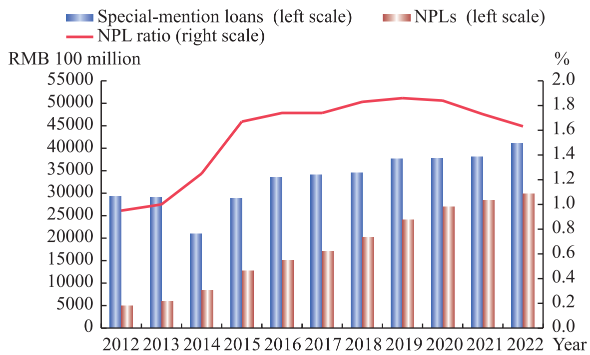
Figure 2.3 CAR and Capital Structure of Commercial Banks①



Source: The former CBIRC.

NPL ratio declined and the downward pressure on asset quality was under control. At end-2022, the NPLs of commercial banks totaled RMB 2.98 trillion, an increase of RMB 135.9 billion year on year; and the NPL ratio was 1.63 percent, down 0.1 percentage point year on year. Special-mention loans stood at RMB 4.1 trillion, an increase of RMB 300.3 billion or 7.88 percent year on year (Figure 2.4). Loans overdue for over 90 days increased by 120.83 billion or 5.5 percent year on year to RMB 2.3 trillion, which accounted for 77.7 percent of the total NPLs.

Figure 2.4 Special-mention Loans and NPLs of Commercial Banks



Source: The former CBIRC.

Risk coverage of the banking sector was strong. At end-2022, loan loss provisions of commercial banks stood at RMB 6.14 trillion, an increase of 534.3 billion or 9.53 percent year on year; the provision coverage ratio reached 205.85 percent, up 8.94 percentage points year on year; and the provision to loan ratio registered 3.36 percent, down 0.04 percentage point year on year.

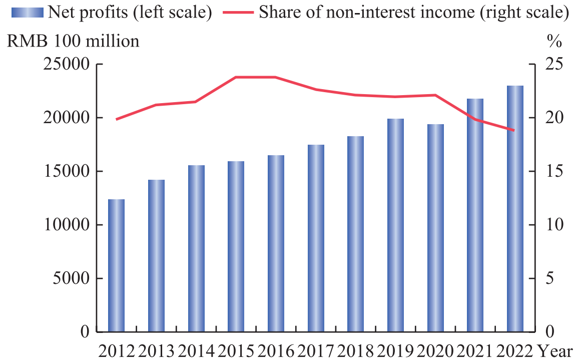
The overall liquidity remained in an adequate and sufficient range. At end of 2022, the liquidity ratio of commercial banks stayed at 62.85 percent, up 2.53 percentage points year on year. The LCR of commercial banks with assets over RMB 200 billion was 147.41 percent, up 2.11 percentage points year on year; and the NSFR was 124.64 percent, up 2.14 percentage points year on year.

Net interest margin (NIM) narrowed and profitability declined slightly. In 2022, commercial banks gained net profits of RMB 2.3

① As of 2013, CAR was calculated according to the *Capital Rules for Commercial Banks (Provisional)*.

trillion, up 5.44 percent year on year. The NIM of banking institutions stood at 1.91 percent, down 0.16 percentage point year on year; interest income accounted for 81.2 percent of total income, while non-interest income accounted for 18.8 percent, which decreased 1.01 percentage points year on year (Figure 2.5). At the end of 2022, the ROA of banking institutions registered 0.76 percent, down 0.03 percentage point year on year; and the ROE stood at 9.33 percent, down 0.31 percentage point year on year.

Figure 2.5 Net Profits and Share of Non-interest Income of Commercial Banks



Source: The former CBIRC.

Box 5 The Risk Monitoring and Early Warning Systems for Banks

Since end-2020, the PBC has developed an indicator system for risk monitoring and early warning, which targets "safe-zone" banks that are rated level 1 to 7① by Central Bank Rating on a quarterly basis, aiming to identify emerging risks, shore up weak links, and prevent "diseases" from materializing by detecting vulnerabilities in an ex-ante manner.

I. Overview of the Risk Monitoring and Early Warning System

Usually there are signs of risk accumulation in high-risk institutions. From the experience of recent resolution cases, certain indicators of high-risk financial institutions have already showed some risks. If these potential risks could be identified and mitigated from the outset, asset losses and resolution costs will be effectively controlled, and works on risk mitigation will be more forward-looking and effective.

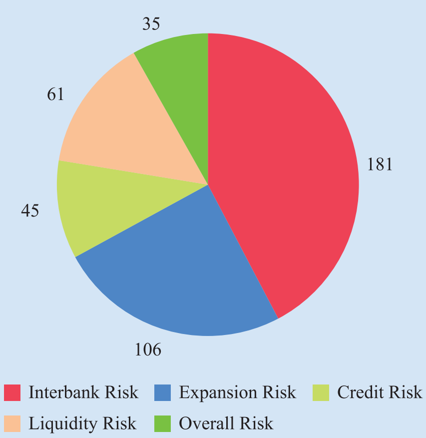
For banks rated level 1-7, the PBC has developed an early warning system. The system is composed of risk indicators in five areas: expansion risk, interbank risk, liquidity risk, credit risk and overall risk. Once any worsening indicator or sign of risk is identified, the PBC will take prompt measures at an early stage to intervene until such indicators return to the industry average, in order to prevent potential risks from materializing. It should be noted that abnormal indicators do not necessarily point to high-risk institutions or risk events. Nonetheless, it is beneficial to leverage available database and information from daily monitoring and supervision to identify emerging risks in a timely manner.

① The rating results span from level 1 to 10 and level D, with level 8-D referring to high-risk institutions.

II. The results of risk monitoring and early warning for banks

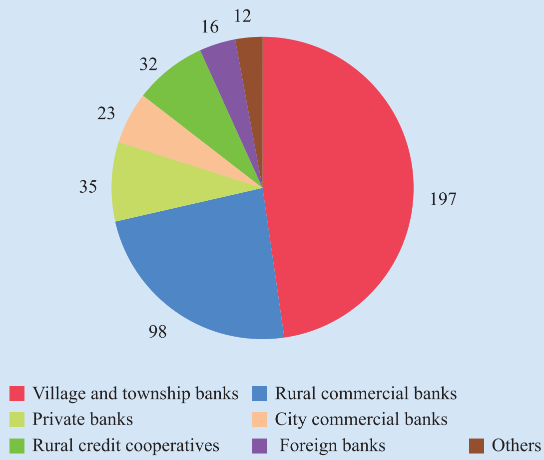
Risk profile of banks on the early warning list. From Q4 2020 to Q4 2022, the PBC completed 9 early warning exercises, with 413 warning-triggers detected cumulatively and 228 banks identified (one bank may trigger multiple warnings). By indicator, interbank risk and expansion risk were identified 286 times, accounting for 69 percent of all warnings triggered. By bank type, village and township banks and rural commercial banks were flagged 295 times, accounting for 71 percent of all banks identified (Figure 1 and 2).

Figure 1 Distribution of Early Warnings by Risk Category



Most banks on the watchlist have been removed after taking corrective measures. Regarding the banks on the watchlist, the PBC adopts comprehensive measures to promote them to take timely and targeted corrective actions. For example, the PBC may issue risk alerts to banks on the watchlist or have direct conversations with the banks' management, urging banks to take measures, and it also enhances efforts on risk monitoring to track the developments of relevant indicators of those banks. The PBC will share the results of early warning exercises with bank supervisors and local governments to form synergy. By end-Q4 2022, 197 out of 228 watchlist banks had been removed from the list, accounting for 86 percent of the total banks on the list, of which over 70 percent were removed in two quarters. For example, six banks were flagged by credit risk indicators because of rapid growth of loans overdue and high client concentration in Q3 2022. The local branches of PBC sent risk alerts to those banks in a timely manner, urging them to take corrective actions. All six banks increased their efforts to dispose NPLs and contracted credit lines to clients with large exposures, and they were removed from the list in Q4 2022.

Figure 2 Distribution of Early Warnings by Bank Type



III. Next Steps

Continuously strengthening risk

monitoring and early warning, and further optimizing the indicator system. The PBC will closely monitor the developments in macroeconomic environment and the overall operations of banking institutions, and dynamically adjust the indicators in a timely manner to reflect risks in key areas such as local government debt and real estate sector. Efforts will be made to establish a regional and differentiated warning system, based on the risk characteristics of banks in different regions and on their diversified operating environments.

Box 6 Progress on the Pilot Program of mandatory PCA Framework on newly identified High-risk banks

The Prompt Corrective Actions (hereinafter short for PCA) mechanism was first introduced in the U.S., featured with early identification of high-risk banks and their weaknesses, authorizing financial regulators to take corresponding corrective measures based on their different risk profile, with an aim to reduce the probability of bank failure and the spillovers, as well as to minimize the resolution costs. In recent years, Chinese financial regulators actively worked on the design and implementation of an effective mandatory PCA framework for newly identified high-risk banks, taking into account both the experiences of other countries and China's reality, with the focus on requiring newly identified high-risk banks to correct their problems within the PCA time limit, so that any further deteriorating or accumulating of vulnerabilities can be avoided. Currently, the first pilot program of mandatory PCA mechanism achieved positive progresses, and the second pilot program whose scope is expanded has been pushed forward steadily.

I. In international practice, the specific time requirements were set for PCA, takeover and resolution processes

The time requirements for PCA, takeover and resolution processes can be found in the resolution legislation in major economies. The experiences and practices in the U.S. and the EU showed that the delay in intervening or closing the problem financial institutions led to the accumulation of losses, risk contagion to relevant counterparties and increase in ultimate resolution costs. In case of delay in closing, financial institutions with bigger capital shortfall were more likely to attract funds at higher costs to cover up the deteriorating situation. Therefore, in their legislation, major economies have set time requirements for the PCA, takeover and resolution processes, customize their measures based on financial institutions' capital positions, and develop criteria for initiating the compulsory resolution process. This would help to avoid the delay in closing or resolution and prevent further risk contagion.

For example, in the U.S., when the capital adequacy ratio of a commercial bank falls below 8 percent, the bank is required to submit the capital replenishing plan to supervisors within 45 days, and when the ratio of Tier 1 capital to total assets falls below 2 percent, decisions should be made within 90 days that whether the FDIC will be appointed as the receiver or other actions will be taken. In the EU, the Single Resolution Board (SRB) is required to initiate the resolution process immediately once it comes to the conclusion that a credit institution is insolvent. The European Commission shall notify the SRB about its decision on whether it agrees to implement the resolution plan within 24 hours after receiving SRB's resolution plan.

The PCA mechanism has played a useful and effective role in preventing and addressing potential bank failures. **First,** the resolution cost can be reduced. International experiences show that the resolution costs of closed bank placed in the PCA process before its failure (measured as losses to the deposit insurance fund) are lower compared to those closed directly without going through the PCA process. **Second,** the regulatory efficiency can be enhanced. The PCA mechanism provides strong legal support to close the problem bank in a mandatory way, instead of in a discretionary and delayed way, once certain conditions are satisfied. Therefore it can effectively prevent regulatory forbearance and external pressures, facilitate the resolution process by ensuring the resolution authorities can intervene before banks' failures in an appropriate way, and create incentives for commercial banks to keep sufficient capital levels, so that the loss-absorbing capacity of the whole financial system remains ample. **Third,** the market discipline is upheld. With clear criteria for initiating the resolution process for problem banks, the PCA mechanism help to avoid the competition between such banks and healthy ones which could disrupt market order.

II. The legal framework supporting PCA mechanism in China has been gradually established and fulfilling its role

The concepts of the PCA have been formulated and underscored gradually in the process of improving the legal framework for financial regulation. In *the Law of the People's Republic of China on Banking Supervision* enacted in 2004, it is stipulated that where a banking financial institution violates the prudential operation rules, the banking regulator shall order it to correct the problem within a time limit, and may take relevant PCA to timely mitigate the risks, including suspending some business operations, limiting dividends, asking controlling shareholders to transfer their stocks and replacing directors and senior management. In *the Deposit Insurance Regulations of the People's Republic of China* enacted in 2015, article 16 stipulates that deposit insurance fund manager, PBC and financial regulator shall order the problem institution to adopt corrective measures including replenishing capital, controlling asset growth and credits to be granted to major transactions and reducing leverage ratio.

The powers of the PCA adopted against problem banks have been strengthened in regulations. According to the *Capital Rules for Commercial Banks (Provisional)* published in 2012, banks are categorized into 4 groups depending on their capital levels, and regulators can impose restrictive or corrective measures against banks with insufficient capital levels, such as limiting the dividends, restricting the right and interest of senior management, suspending risky businesses, asking for the write-down or debt-to-equity conversion of eligible tier 2 capital instruments of the bank, as well as takeover or restructuring. The 2023 newly amended *Capital Rules for Commercial Banks* further clarifies and specifies the details of restrictive and corrective measures banking regulators can adopt upon 4 groups of banks with different capital levels, offering a stronger guidance to regulatory practice such as establishing the mandatory PCA framework.

III. Establishing a differentiated regulatory framework based on the Central Bank Rating results

In compliance with laws and regulations, the Financial Stability Bureau of the PBC, drawing on experiences on Central Bank Rating and early warning exercises in recent year, has developed a differentiated regulatory framework for banks depending on their Central Bank Rating results, which covers both the risk resolution of problem banks and intervening healthy banks with emerging risks.

First, for banks rated level 1-7, the risk monitoring and early warning system is established to identify potential risks and to trigger effective responses at an earlier stage when risks were still in the infancy. Over 70 percent of banks identified by the system have been removed from the watchlist in two quarters.

Second, for banks rated level 8-10, the existing and newly identified ones are treated in different ways. For existing high-risk banks, all relevant parties will work together to address the weaknesses, including attracting the strategic investors, collecting nonperforming loans and pushing forward the M&A. For newly identified high-risk banks, the pilot program of the mandatory PCA framework is established, setting stringent time limit for banks to take corrective measures and initiating the resolution process without delay if banks fail to correct their problems, so as to prevent accumulation of high-risk institutions.

IV. Progress of the pilot program of the mandatory PCA framework on newly identified high-risk institutions

First, 6 provinces were first selected to join the pilot program, and mandatory PCAs were already taken against 8 banks. The PBC issued *the Workplan for Establishing the Mandatory PCA Framework for Newly Identified High-risk Banks* in April, 2022. The workplan chose 6 provinces to conduct the mandatory PCA pilot program and required the newly identified high-risk institutions in these 6 provinces to solve their problems within 1 year.

8 high-risk banks in the 6 pilot provinces were newly identified based on the Central Bank rating results in Q1 2022. The local branches of the PBC, following the requirement of the workplan, made more efforts to issue the PCA notification letters to these 8 banks, set a 1 year time limit for them to address their vulnerabilities, and cooperate with banking regulators and local governments to mitigate risks in these banks. According to the workplan, if such banks' risks and vulnerabilities are not resolved within the 1-year time limit, local authorities would be able to take mandatory resolution actions, under the local risk resolution committee work framework. By this mean, the number of high-risk banks could not accumulate. Currently, positive progresses have been made in managing vulnerabilities of those 8 banks, setting the good examples for other areas.

Second, based on the current experiences, the pilot program will be expanded to more provinces. The way of establishing the mandatory PCA framework combines the top-down policy design and bottom-up pilot experiences, which helps to improves the PCA framework in an evolving way. In 2023, taking into account the local economic foundation and financial risk profile of different provinces, as well as the willingness of local governments, the pilot program was further expanded to 8 provinces, contributing to the institutionalized and standardized operation of the mandatory PCA frameworks, which ultimately helps to safeguard the bottom line of preventing systemic financial risks.

III. Outlook

Currently, the world economy is experiencing instablility and uncertainties, as the tightening of monetary policies in major advanced economies continues to have implications elsewhere and volatility in global financial markets has increased. China's economy has remained on a positive trajectory with opportunities and challenges coexisting. The banking industry should continue to improve the quality and efficiency of serving the real economy, strengthen the governance system, prudently resolve risks in key areas, and firmly stick to the bottom line of no outbreak of systemic financial risks.

Keeping the stance of monetary policy sound and resilient, beefing up support to the real economy. Multiple monetary policy instruments will be used to maintain liquidity at a reasonable and ample level, and to keep the growth of money supply and aggregate financing to the real economy in line with the nominal economic growth. And the PBC will maintain appropriate aggregates and a steady pace in supply of credit, to meet the effective financing needs of the real economy based on market-oriented and law-based principles, to enhance the stability and sustainability of the growth of credit aggregates, and to scale up financial support for key areas such as financial inclusion, sci-tech innovation and green development. The effect of the loan prime rate (LPR) reform will be further enhanced, and multiple measures will be adopted to bring down the overall financing costs for market entities.

Preventing and resolving financial risks in key areas. Reforms on small and medium-sized banks to mitigate their risks will be further enhanced, including promoting risk alleviation for city commercial banks and rural credit cooperatives, and steadily pressing ahead with reform and restructuring of village and township banks. Efforts will be made to encourage small and medium-sized banks to replenish capitals through multiple channels, and to require banking institutions to strengthen risk monitoring. Banks will be urged to classify their loans according to the real status of those assets, and to strengthen efforts to dispose NPAs. The PBC will adopt city-specific differentiated credit policies and maintain stable and orderly funding to the property market, to meet people's rigid demand for housing and the needs to improve living conditions, and to ensure timely deliveries of presold homes. The PBC will actively support the work in mitigating the local government debt risk, by optimizing the debt term structure and reducing costs of interests, to firmly reducing stock risks and strictly guarding against incremental risks.

Reinforcing banks' governance systems and the financial stability guarantee mechanism to lay a solid foundation for sound development. The regulatory deficiencies will be addressed, and risk control for financial institutions will be bolstered at the source. Efforts will be made to promote the in-depth integration of Party leadership and corporate governance in banking institutions, to strengthen the management of key people, key position and key links, to enhance the risk management capacity effectively, and to strengthen mechanisms for financial anti-corruption, discipline enforcement and accountability. Works on enhancing the risk monitoring and early warning systems for banking institutions will be continued, and the prompt correction framework with mandatory actions will be implemented. More attention will be paid to developments in international financial market and the evolution of the overseas banking turmoil. Contingent plans for risk spillover will be developed, thereby preventing international financial risk events from affecting the sound operation of China's banking sector.

Chapter III

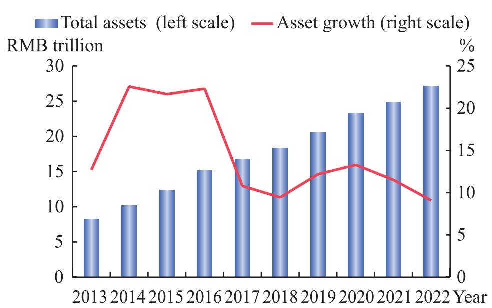
Non-bank Institutions and Other Issues

I. Insurance Sector

1. Recent developments

The insurance sector as a whole maintained a sound operation and their combined assets kept growing. As of end 2022, there were 237 insurance companies nationwide, up by 2 from the previous year. Among them, 92 were life insurers and 88 were property insurers, both up by 1 compared with last year; there were 13 insurance group (holding) companies, 7 reinsurance companies, 1 policy insurance company, 33 insurance asset management companies and 3 other institutions. The total assets in the insurance sector reached RMB 27.15 trillion[①], increasing by 9.08 percent year on year, 2.43 percentage points lower from end 2021 (Figure 3.1). Among these, the assets of life insurers registered RMB 23.37 trillion, up by 9.28 percent year on year; that of property insurers registered RMB 2.67 trillion, up by 8.96 percent year on year; and that of reinsurers registered RMB 671.9 billion, up by 10.93 percent year on year.

Figure 3.1 Total Assets and Growth of the Insurance Sector, 2013-2022



Source: The former CBIRC.

Insurance density increased and insurance penetration declined slightly. In 2022, insurance density and penetration stayed at RMB 3326 and 3.88 percent, or a y-o-y increase of RMB 147 and decrease of 0.05 percentage point respectively. This level was significantly lower than the world average of USD 853 and 6.8 percent.

The premium growth of life insurers declined amid slightly higher surrender rate. In 2022, premium of life insurers registered RMB 3.21 trillion, up by 2.78 percent year on year, 2.23 percentage points lower than that in the previous year (Figure 3.3). Among them, the premium income of ordinary life insurance, participating life insurance, universal insurance and investment-linked insurance registered RMB 1.58 trillion, 861.009 billion, 9.6 billion and 363 million respectively, with a year-on-year growth of 16.93 percent, −13.49 percent, 0.87 percent and −2.45 percent respectively. The surrender rate of life insurance was 2.71 percent, up by 0.39 percentage point from the previous year.

Premium of property insurers grew, with a higher share of premium coming from non-auto insurance[②]. In 2022, the premium income of property insurers registered RMB 1.49 trillion, up by 8.7 percent year on year or 6.78 percentage points higher from the previous year. The premium income of auto insurance accounted for 55.23 percent, down by 1.61 percentage points from the previous year. In other words, the share of non-auto insurance premium kept rising for 6 consecutive years. Among them, premium of agricultural insurance accounted for 8.2 percent,

① The aggregate data does not cover insurers in resolution. The same below.

② Non-auto insurance includes corporate property insurance, household property insurance, engineering insurance, liability insurance, guarantee insurance, agricultural insurance, health insurance, accident insurance, etc.

up by 1.07 percentage points from the previous year, providing risk protection worth RMB 4.6 trillion for 170 million insurance policyholders.

The level of market concentration, while keeping stable overall, was slightly lower for the life insurance market and higher for the property insurance market. In 2022, the market share of the top five life insurers① in terms of premium income was 50.04 percent, down by 1.36 percentage points year on year. The Herfindahl-Hirschman Index (HHI)② for life insurers was 0.075, a slight decline of 0.004 from the previous year. In the property insurance sector, the market share of the top five companies③ in terms of premium income was 73.97 percent, up slightly by 0.45 percentage point year on year; the HHI was 0.173, a slight increase of 0.005 from the previous year.

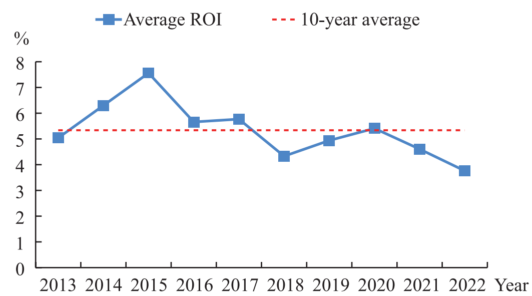
2. Soundness Assessment

Insurers' asset portfolio remained generally stable, but their investment returns declined. As of end of 2022, funds utilized by the insurance sector stood at RMB 25.05 trillion, an increase of 7.85 percent from end-2021, a deceleration of 4.3 percentage points year on year. Investment in bank deposits, bonds, equity and securities investment funds increased as a share of total portfolio, whereas the share of other investments declined (Table 3.1). The investment returns of the insurance sector declined by 9.41 percent year on year to RMB 917.1 billion. The average ROI declined by 0.85 percentage point year on year to 3.76 percent, which was lower than the 10-year average of 5.34 percent (Figure 3.2).

Table 3.1 Utilization of Insurance Funds (as of end-2022)

Investment Structure	Bank Deposits	Bonds	Equity and Securities Investment Funds	Other Investments
Size (RMB trillion)	2.8348	10.253	3.1829	8.7802
Share (%)	11.32	40.93	12.71	35.05
Y-o-y Change	0.05	1.89	0.01	−1.94

Figure 3.2 Average ROI of Insurance Funds



Source: The former CBIRC.

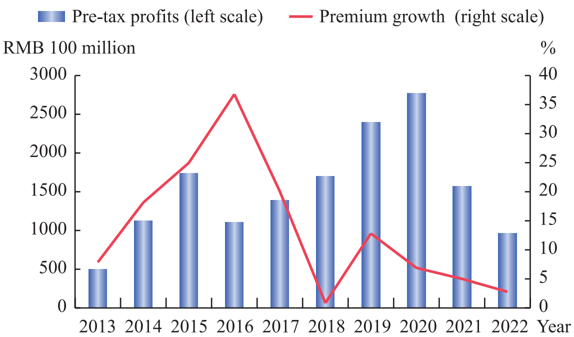
The pre-tax profits and net profits of life insurers declined. Due to fluctuations in the capital market and an increase in provisioning, the pre-tax profits of life insurers in 2022 declined by 38.68 percent year on year to RMB 96.271 billion (Figure 3.3), and the net profits declined by 20.89 percent year on year to RMB 127.211 billion. 46 life insurers incurred losses.

① The top five life insurers included China Life, Ping An Life Insurance, China Pacific Life Insurance, Taikang Life Insurance and New China Life Insurance.

② HHI is the sum of squares of every institution's market share in the sector. The higher the HHI goes, the more concentrated the market is.

③ The top five property insurance companies included PICC Property & Casualty, Ping An Property & Casualty Insurance, China Pacific Property Insurance, China Life Property & Casualty Insurance, and China United Property Insurance.

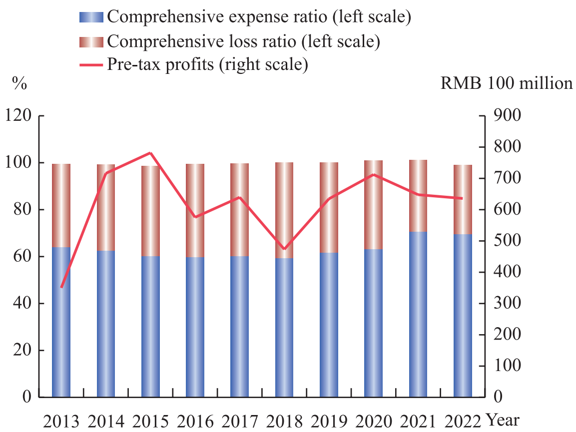
Figure 3.3 Pre-tax Profits and Premium Growth of life insurers, 2013-2022



Source: The former CBIRC.

The comprehensive cost ratio of property insurers declined and their pre-tax profits also declined slightly. In 2022, the comprehensive cost ratio of property insurance companies decreased by 2.05 percentage points year on year to 99.02 percent. 53 property insurers registered underwriting losses[①]. The annual pre-tax profits of property insurers in 2022 declined by 1.85 percent year on year to RMB 63.582 billion (Figure 3.4).

Figure 3.4 Underwriting Performance and Pre-tax Profits of Property Insurers, 2013-2022



Source: The former CBIRC.

The solvency of the insurance sector was adequate overall. As of end-2022, the comprehensive solvency adequacy ratio and the core solvency adequacy ratio of insurance companies stayed at 196 percent and 128.4 percent respectively, which were above the minimum regulatory level of 100 percent and 50 percent. Among them, the average comprehensive solvency adequacy ratios of life insurers, property insurers and reinsurers were 185.8 percent, 237.7 percent and 300.1 percent respectively; their average core solvency adequacy ratios stayed at 111.1 percent, 206.8 percent and 268.5 percent respectively. In terms of the comprehensive risk rating, there were 49 companies rated A and 105 rated B in the fourth quarter of 2022, which were considered as low risk companies; and there were 16 companies rated C and 11 rated D, up by 8 and 7 respectively, mainly small- and medium-sized life insurers. Companies rated C or D either failed to meet the solvency adequacy ratio requirement or met the standard but regarded with high risk. In July 2022, the former CBIRC officially took over Tian'an Property Insurance Co., Ltd., Huaxia Life Insurance Co., Ltd., Tian'an Life Insurance Co., Ltd. and Yi An Property & Casualty Insurance Co., Ltd.

① Excluding the China Export & Credit Insurance Corporation.

Box 7 Promoting the Healthy Development of Small- and Medium-Sized Life Insurance Companies

China's life insurance companies are mainly located in economically developed areas and operate stably in general. In recent years, some small- and medium-sized life insurance companies are exposed to risks, and it is necessary to further strengthen corporate governance, improve the effectiveness of supervision, and promote the reform and risk resolution of small- and medium-sized life insurance companies, so as to achieve high-quality development.

1. Overview of Life Insurance Companies in China

Life insurance companies are mainly distributed in economically developed areas. By the end of 2022, there were 75 life insurance companies in China, with total asset of about RMB 23 trillion, accounting for 84 percent of the total assets of the insurance industry. In terms of the size of assets of each single company, there were 5 life insurance companies with assets of more than RMB 1 trillion, 25 life insurance companies with assets between RMB 100 billion to RMB 1 trillion, and 45 life insurance companies with assets less than RMB 100 billion. In terms of registration place, there were 50 life insurance companies in Beijing, Shanghai and Guangdong, accounting for two-thirds of the total number and taking up 89 percent of the total assets of life insurance companies in China.

The life insurance industry is generally operating steadily with adequate solvency. In the Q4 2022, 54 life insurance companies were rated A or B in the comprehensive risk rating, and the major large life insurance companies, such as China Life Insurance, Ping An Life Insurance, Pacific Life Insurance, Xinhua Life Insurance, Taikang Life Insurance, Taiping Life Insurance and PICC Life Insurance, were all rated A or B with sound operation. Among the 21 life insurance companies with a comprehensive risk rating of C or D, 10 were medium-sized companies with assets ranging from RMB 100 billion to RMB 500 billion, and 9 were small companies with assets under RMB 100 billion. Life insurance companies with a comprehensive risk rating of C and D were mainly distributed in economically developed areas.

2. Some Small- and Medium-Sized Life Insurance Companies Are Faced with Risks

In recent years, some small- and medium-sized life insurance companies have been faced with challenges in the healthiness and sustainability of their development due to inadequate operation and management capacity and highly homogeneous products.

First, corporate governance is ineffective and funds are occupied illegally. The failure of the shareholders' general meeting, the board of directors, the board of supervisors and the senior management to perform their duties, and the dysfunction of the internal check and balance mechanism of corporate governance in some small- and medium-sized life insurance companies lead to the illegal occupation of insurance funds by some shareholders and actual controllers to support industrial expansion, project development and debt repayment.

Second, the pursuit of scale expansion leads to risks. Some life insurance companies pursue expansion of scale with a development mode of "high-cost liabilities + high-risk investment", neglect risk management capacity and pursue high-risk returns with high-cost funds, leading to risks eventually.

Third, there are many challenges in terms of product differentiation and development channels. Some small- and medium-sized life insurance companies have little product differentiation. They are excessively reliant on short-term incentives, price wars and other means to carry out homogeneous competition, making it difficult to form an effective profit model. Some small- and medium-sized life insurance companies rely heavily on external sales networks, which leads to weak "power of words" and decline of the value rate of insurance business, and further compresses profits.

3. Promoting the Healthy Development of Small- and Medium-Sized Life Insurance Companies

First, improving corporate governance. Efforts will be made to consolidate the main responsibilities of life insurance companies, strengthen corporate governance, and effectively play the role of checks and balances of the shareholders' general meeting, the board of directors, the board of supervisors and the senior management. While fully protecting the legitimate rights and interests of shareholders, it is important to enhance supervision on the behavior of shareholders and actual controllers, and urge shareholders to exercise their rights and assume responsibilities in accordance with laws and regulations. Measures will also be taken to strengthen the external constraints of small- and medium-sized life insurance companies by insurers, the insurance security fund and other stakeholders.

Second, improving the effectiveness of supervision. Efforts should be made to strengthen the supervision of shareholders' equity of life insurance companies, to prevent major shareholders from manipulation. For small- and medium-sized life insurance companies with abnormal business scale expansion, it is necessary to enhance the early detection, early warning and early correction of risks. More rigid grading, classification and look-through supervision on funds use will be carried out for small- and medium-sized life insurance companies. Measure will also be taken to strictly crack down on violations, enhance administrative punishment, and seriously investigate and punish violations of disciplines, laws and regulations behind risks. For areas where life insurance companies are concentrated, efforts will be made to strengthen the allocation of regulatory resources to enhance regulatory capacity.

Third, promoting the life insurance industry to return to its fundamental responsibility and promote high-quality development. Small- and medium-sized life insurance companies should be oriented to sustainable development in the long term, focus on their specific market segments, realize characteristic operation and take the road of differentiated development. They should pay more attention to liability management, follow the design principles and pricing rules of life insurance, and develop more long-term security business.

3. New Regulations

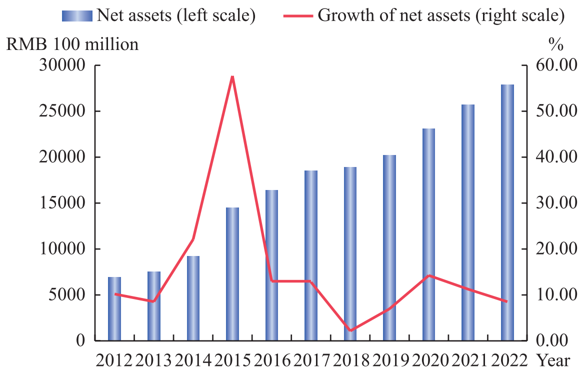
First, the former CBIRC issued the *Regulations on Related Party Transactions of Banking and Insurance Institutions* in January 2022 and the *Notice on Strengthening the Supervision of Related Party Transactions in the Use of Funds by Insurance Institutions* in May 2022. The regulatory rules require insurers to take primary responsibility for the management of related party transactions, and stipulate that proper measures should be taken to downsize such transactions, address interest transfers to shareholders and their related parties, improve the identification of related parties and transactions, strengthen supervision of such activities and ensure compliance of related party transactions in the use of insurance funds. Second, the former CBIRC issued the *Operational Rules for the Regulations on Reserve Funds for Non-Life Insurance Activities of Insurance Companies (No. 1–7)* in March, specifying the principles and approach for reserve fund assessment, and specific rules for the risk margin and discount processing of reserve funds, branch reserve fund management, and reserve fund retrospective analysis. Third, the former CBIRC revised and issued the *Notice on Insurance Fund Investing in Certain Financial Products* and the *Regulations on Entrusted Investment of Insurance Funds* in April 2022, which included wealth management products, single asset management plans and debt-to-equity swap investment plans in the scope of investable financial products, fully consolidating the main responsibility of the principals, strengthening the active management responsibility of the trustees, and regulating the entrusted investment behavior of insurance funds. Fourth, the former CBIRC revised and released the *Regulations on the Insurance Asset Management Companies* in July 2022, improving the corporate governance and risk management requirements for insurance asset management companies, optimizing the requirements for equity structure design, and strengthening supervisory actions on violations. Fifth, the PBC and the former CBIRC jointly issued the *Notice on Issuance of Perpetual Capital Bonds by Insurance Companies* in August 2022, allowing insurance companies to apply for the issuance of perpetual capital bonds to improve their capital replenishment mechanism. Sixth, the former CBIRC, the MOF and the PBC revised and released the *Regulations on Insurance Security Funds* in October 2022, modifying the fund-raising terms of insurance security funds, adjusting the fixed rate system to a risk-oriented rate system, optimizing the use and management of funds, and improving the assistance conditions. Seventh, the former CBIRC released the *Regulations on Information Disclosure of Personal Insurance Products* in November 2022, requiring insurance companies to fully disclose information closely related to consumer rights, such as terms and conditions, premium rates and cash value statements.

II. Securities Sector

1. Recent developments

The number of securities companies kept stable with continuous asset growth. As of end 2022, there were 140 securities companies, of which 42 companies were listed (excluding listings of their group or parent companies), up by 1 year on year. Total assets of securities companies registered RMB 11.06 trillion, up by 4.41 percent year on year. The total net assets of securities companies registered RMB 2.79 trillion, up by 8.52 percent year on year (Figure 3.5). The number of investors served by securities companies reached 210 million, the balance of funds for served brokerage clients reached RMB 1.88 trillion, the securities trading volume on behalf of clients reached RMB 733.25 trillion yuan, the balance of selling financial products on behalf of clients reached RMB 2.75 trillion, and the asset under management reached RMB 9.76 trillion.

Figure 3.5　Net Assets of Securities Companies, 2012-2022



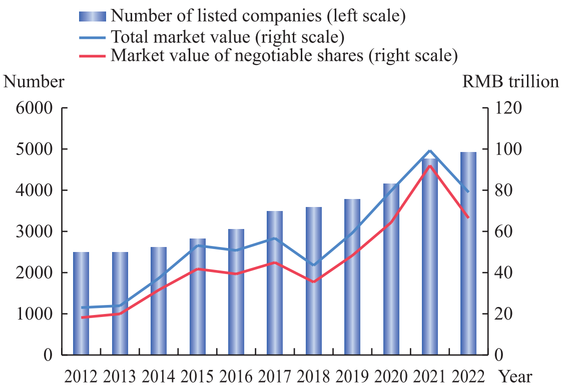
Source：The CSRC.

The number of fund companies increased with continuous asset growth. As of end 2022, there were 155 mutual fund management companies, up by 6 year on year. The total amount of mutual funds managed by fund management companies and 13 asset management institutions with mutual fund licenses posted RMB 26.03 trillion, up by 3.02 percent year on year. In 2022, there were 23667 registered private equity managers, with 145020 private equity funds under management worth RMB 20.28 trillion, a y-o-y increase of 2.63 percent.

The number of futures companies kept stable with a decelerating growth of total assets. As of end 2022, there were 150 futures companies, the same as the previous year, with 100 risk management subsidiaries, up by 3 year on year. The total assets of futures companies (clients' assets included) registered RMB 1.69979 trillion, up by 23.03 percent year on year, a deceleration of 17.30 percentage points. Their total net assets registered RMB 184.133 billion, up by 14.05 percent, a deceleration of 4.45 percentage points.

The number of listed companies increased steadily while their capitalization decreased. As of end 2022, there were 4917 listed companies on the Shanghai Stock Exchange and Shenzhen Stock Exchange altogether, a net increase of 302 from the end of the previous year, with 50 companies delisted. The total market value and that of negotiable shares reached RMB 79.01 trillion and RMB 66.46 trillion respectively, down by 14.01 percent and 11.70 percent year on year (Figure 3.6). The market value of negotiable shares accounted for 84.11 percent of the total market value, up by 0.27 percentage point year on year.

Figure 3.6 Number and Market Value of Listed Companies, 2012-2022

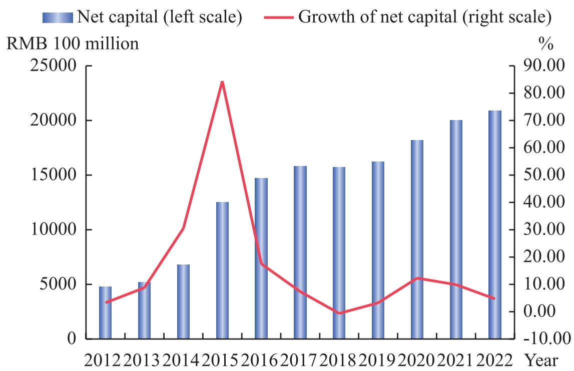


Source: The CSRC.

2. Soundness Assessment

The business growth of securities companies decelerated but their operation kept generally stable. As of end 2022, the total net capital of the entire securities sector registered RMB 2.09 trillion, up by 4.69 percent year on year and growing for four consecutive years (Figure 3.7); the average risk coverage ratio was 257.65 percent, 7.78 percentage points higher than last year; the average capital leverage ratio was 19.81 percent, 1.09 percentage points lower than last year; the average liquidity coverage ratio was 236.03 percent, 2.08 percentage points higher than last year; and the average net stable funding ratio was 154.91 percent, 5.27 percentage points higher than last year. All these indicators stayed above the minimum regulatory requirements. In 2022, the operating revenue of the entire securities sector declined by 21.17 percent year on year to RMB 395.007 billion; its net profits registered RMB 143.332 billion, down by 23.96 percent year on year; and the average ROE of the whole sector was 5.14 percent, 2.21 percentage points lower than the previous year.

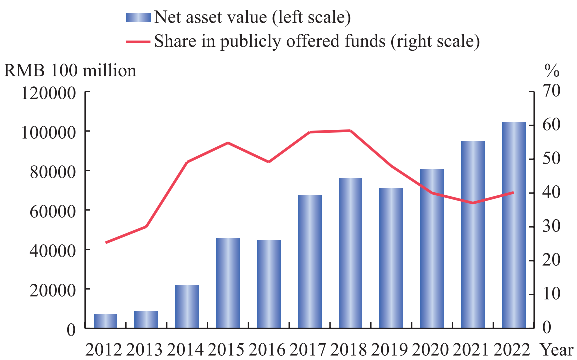
Figure 3.7 Net Capital of Securities Companies, 2012-2022



Source：The CSRC.

Assets under management of fund management companies grew slightly while the share of money market funds increased. As of end 2022, the net value of publicly offered funds registered RMB 26.03 trillion, up by 3.02 percent year on year. Of which, equity funds accounted for 9.53 percent of the publicly offered funds, down by 0.79 percentage point year on year; hybrid funds accounted for 21.58 percent, down by 3.64 percentage points; bond funds accounted for 28.73 percent, up by 1.73 percentage points; and money market funds accounted for 40.16 percent, up by 2.70 percentage points (Figure 3.8). The net asset value of money market funds registered RMB 10.46 trillion, up by 10.44 percent year on year; its average leverage ratio was 1.06, down by 1.19 percent points; and the average remaining maturity of its investment portfolios was 84 days, 3 days longer than last year.

Figure 3.8 Money Market Funds: Net Asset Value As A Percentage of Publicly Offered Funds, 2012-2022



Source: The CSRC.

The profitability of futures companies declined, and the number of high-risk companies decreased. In 2022, futures companies achieved a total operating revenue of RMB 40.176 billion, down by 18.72 percent year on year. Among them, fees registered RMB 24.611 billion and accounted for 61.26 percent of the operating revenue, a decrease of 21.74 percent and 2.36 percentage points year on year respectively. The net profits registered RMB 10.962 billion, down by 20.21 percent year on year. As of end 2022, the ratio of net capital of futures companies to total customer equity was 7.89 percent, down by 0.77 percentage point year on year; the ratio of net capital to net assets was 63.35 percent, down by 0.26 percentage point year on year. Both indicators stayed above the minimum regulatory requirements. According to the 2022 rating results, there were 54 futures companies rated A, 76 rated B and 17 rated C respectively, up by 15, down by 19 and up by 7 respectively. Companies rated from A to C were regarded as less risky. There were 3 futures companies rated D (namely with higher risks), a decrease of 2 from the previous year.

Performance of listed companies continued to improve. As of April 30, 2023, 4979 listed companies on Shanghai Stock Exchange and Shenzhen Stock Exchange had disclosed their 2022 annual reports. Total operating revenue of listed companies registered RMB 71.73 trillion, a year-on-year growth of 8.16 percent. The net profits of listed companies reached RMB 5.20 trillion, up by 2.71 percent year on year, indicating a slightly improving profitability.

3. New Regulations

First, the CSRC released the *Regulations on Directors, Supervisors, Senior Management and Practitioners of Securities and Fund Institutions* in February 2022, which standardized the appointment and management of directors, supervisors, senior management and practitioners of securities and fund institutions, strengthened the main responsibility of institutions, and promoted their compliant and sound operation. Second, the CSRC released the *Regulations on the Pilot Program of Securities Companies' Stock Market Making Activities in the STAR Market* in May, adopting a pilot approach to introduce a market maker mechanism in the STAR Market, allowing securities companies with sound corporate governance and internal control mechanism, stable operations and strong risk resilience to carry out market making activities. Third, the CSRC, the Ministry of Justice and the Ministry of Finance jointly issued the *Opinions on Strengthening the Regulation about Incorruptible Operation of Intermediaries under the Registration System* in May 2022, which specified requirements for securities companies about the establishment and improvement of a leadership mechanism and basic institutional arrangements for incorruptible operation, as well as strengthening training and education about incorruptible operation for practitioners, so as to penalize financial corruption and promote financial risk prevention, to continuously purify the capital market ecosystem, and to provide strong safeguard for the registration system reform. Fourth, the CSRC released the *Regulations on the Managers of Publicly Offered Securities Investment Funds* and its complementary rules in May 2022, which enhanced the regulatory requirements for managers of publicly offered funds along the life cycle of "access, internal control, operation, governance, exit and supervision". The *Regulations* highlighted the combination of delegating and strengthening administrative powers in a differentiated manner, to promote for a diversified, open and competitive ecosystem that respects the survival of the fittest, and the orderly entry and exit, so as to effectively protect the legitimate rights and interests of fund share holders.

III. Other Sectors and Emerging Risks

1. Crypto Assets

Crypto assets carry both financial risks and digital technology risks. Crypto assets refer to cryptography-, distributed ledger- or similar technologies-enabled digital assets developed and maintained by the private sector. They create a new asset form and a new business model. Crypto assets are neither issued by the monetary authorities, nor legal tender or compulsory to use as a fiat currency, and they have the potential to bring financial and technological risks since they are not subject to regulation in proportion to their business nature. On the one hand, the crypto sector exhibits all possible risks that are symbolic of traditional unregulated financial activities, i.e. asset price bubbles, price volatility, liquidity and maturity mismatch, high leverage and pro-cyclicality. On the other hand, it also gives rise to new risks related to digital technology, including the lack of a "negative feedback" adjustment mechanism for automatically executed smart contracts, which is more likely to lead to market crashes; security loopholes in data interaction on- and off-chain, which can easily be attacked by hackers and lead to market manipulation and asset losses; the essentially "centralized" feature of the so-called decentralized finance (DeFi) governance, which is subject to insider control and may harm investor interests; and the anonymity and unretrievable nature of crypto assets, leading to AML/CFT concerns.

China is among the first countries to carry out rectification campaigns on crypto assets-related risks. Currently, the share of crypto assets in global financial assets is not high, and the interconnectedness between crypto assets and traditional financial systems is limited. However, the rapid development, complex business models, opaque governance structures, and active cross-border activities of crypto assets may pose a threat to global financial stability. China carried out rectification on token issuance and financing, crypto assets trading platforms and other areas in a prompt and timely manner. In 2021, the *Notice on Further Preventing and Addressing the Speculative Risks in Virtual Currency*

Transactions was issued to form an interagency effort to prevent, address and resolve risks. With these efforts, risks in related fields have been effectively curbed.

Since 2022, in response to frequent risk events of crypto assets, national regulatory authorities and international organizations have introduced regulatory policies and response measures. Crypto assets have witnessed rapid growth both in terms of size and business models in overseas markets, and have expanded from traditional crypto assets to decentralized lending, asset management, financial derivatives, exchanges, insurance and other DeFi areas. However, this process is accompanied by frequent frauds. Since 2022, a series of risk events, such as the collapse of TerraUSD stablecoins and the crypto assets trading platform FTX, have caused significant market turbulence, further highlighting the risks related to crypto assets such as high price fluctuations, strong speculative attributes and imperfect governance, and have resulted in spillover implications on financial stability. Crypto assets flow across borders, and it is therefore necessary for countries to collaborate and form a regulatory synergy. In recent years, national regulatory authorities and international organizations have started to evaluate the risks of crypto assets, and introduced regulatory policies and response measures. These measures basically called for regulations on crypto assets in line with the proportionality principle and the "same business, same risk, same regulation" approach. Meanwhile, they called for addressing regulatory data gaps, reducing regulatory fragmentation and eliminating regulatory arbitrage.

2. Climate risks

Climate risk can be categorized as physical risk and transition risk. Climate risk refers to the potential uncertainty to economic and financial activities brought by meteorological factors including extreme weathers, natural disasters and global warming, and by the transition to a sustainable society. Based on transmission channels, climate risk can be broadly categorized into physical risk and transition risk. The former refers to risks associated with property damages caused by extreme weathers, natural disasters and related events; and the latter refers to risks of potential losses caused by climate policy shift, technological innovation, and changes in market sentiment to financial institutions in the transition to a sustainable society.

As an emerging risk, the impact of climate risk on financial stability is receiving increasing attention. In 2022, the PBC organized 19 D-SIBs to conduct climate risk sensitivity stress tests on 8 carbon-intensive sectors, including electricity, iron&steel, building materials, non-ferrous metals, aviation, chemicals, petrochemical and papermaking, to evaluate the potential impact of rising emission costs on the banking sector. The test result shows that emission cost increases have varying degrees of impact on different sectors. For carbon-intensive and highly leveraged sectors, enterprises will likely see their repayment capability deteriorate. However, banks' overall capital adequacy ratio can meet regulatory requirements under adverse scenarios, as the share of loans to high emission sectors as a percentage of banks' total loan portfolio is low.

Box 8 Climate Risk Sensitivity Stress Test Conducted by the PBC

In 2022, 19 D-SIBs participated in the PBC's climate risk stress test based on sensitivity analysis. The test was carried out to assess potential impact of the transition under the "carbon peaking and carbon neutrality" goals on the banking sector, and to enhance participating banks' capacity to manage climate-related financial risks.

The PBC test targets the high-emission sectors[①], including electric power, iron and steel, building materials, petrochemicals, chemicals, paper making, aviation and non-ferrous metals, to see how increases in emission costs would affect repayment capacity of enterprises in the above sectors, and further affect participating banks' credit quality and capital adequacy levels.

The test adopts the following methodology and assumptions. The stress scenario setup includes a mild, a moderate and a severe scenario, in reference to carbon price changes in the domestic emission trading market, and scenarios designed by the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). In terms of key assumptions, we first assume that a tax will be levied on enterprises' greenhouse gas emissions, which will increase year by year; secondly, we assume that no technological breakthrough is introduced and an individual enterprise has no bargaining power against its upstream or downstream enterprises; and thirdly, we assume that enterprises with larger liabilities than assets will be unable to service its debt and will default. In terms of risk transmission channels, as target enterprises need to pay a tax for carbon emissions, their production costs would increase as a result, which would adversely affect their profitability and probability of default, as well as banks' expected loan losses and capital adequacy levels. The test set end-2021 as the base period, with a time horizon of 9 years. A participating bank would be considered to pass the test if its post-stress CET1 ratio, Tier 1 ratio and capital adequacy ratio (capital add-on for systemically important banks included) in 2030 all meet regulatory requirements.

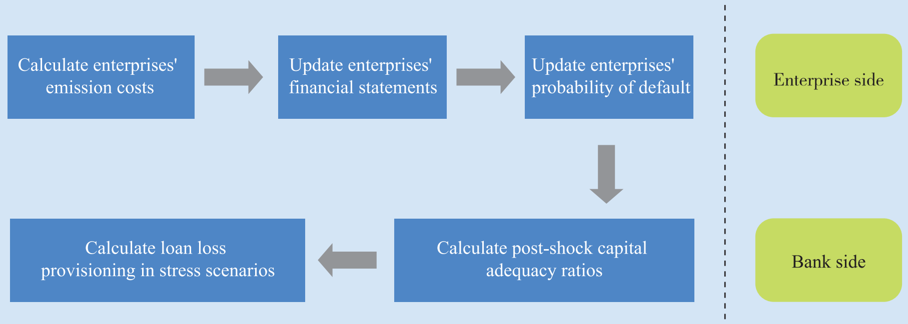
Test results showed that increases in carbon tax had varying degrees of impact on different sectors, as those carbon-intensive sectors with high leverage ratios and poor profitability performance would see their non-performing loan ratios rising more significantly. The loans to those carbon-intensive sectors, however, represented only a small portion of the tested banks' loan portfolios, and therefore

① According to the *Notice on Carrying Out Carbon Emission Reporting, Verification and Submission of the High Emission Entity List in the Power Generation Sector in 2019* released by the Ministry of Ecology and Environment, the following sub-sectors of the eight high-emission sectors are covered in the test: thermal power, combined heat and power, cement production, plate glass, steel-making, steel rolling and processing, aluminum smelting, copper smelting, crude oil processing and refined oil production, chemical raw material production, fertilizer production, pesticide production, synthetic material production, wood and bamboo pulp production, non-wood and bamboo pulp production, machine-made paper and paperboard production, air passenger transportation, and air cargo transportation.

the transition shock to banks was overall manageable. As of end-2021, tested banks had a provision coverage ratio of 236.94 percent, loan provision ratio of 3.08 percent, and capital adequacy ratio of 15.96 percent. By 2030, the aggregate capital adequacy ratio of tested banks would decline to 15.36 percent, 15.34 percent and 15.31 percent respectively under mild, moderate and severe scenarios, still above regulatory requirements.

The test was carried out by the PBC as a tentative step to quantify the impact of climate risks on the financial sector. It should be noted that neither stress scenarios nor key assumptions used in this test represent current policy settings or future policy orientations in China. Going forward, the PBC will continue to improve its methodology for the climate sensitivity stress test, expand sectoral coverage, and explore the transition risk stress test based on macroeconomic scenarios and the physical risk stress test.

Figure 1 Climate Sensitivity Stress Test: Transmission Channel



Chapter IV

Financial Markets

Financial markets performed soundly in 2022, with more diversified market participants, increased openness and improved market mechanisms. Financial markets have played positive roles in servicing the real economy and promoting high-quality development.

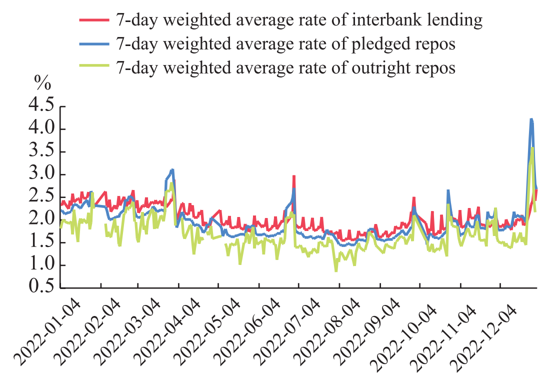
I. Performance of Financial Markets

1. Money Market

Transaction volume of money market continued to expand and its growth accelerated. In 2022, money market transactions were active. Transaction volume of interbank lending and repos reached RMB 1526.9 trillion, up by 31 percent year-on-year, which was 26 percentage points higher compared with that of last year. Among these transactions, interbank lending registered RMB 146.8 trillion, up by 24 percent year on year; pledged repos registered RMB 1374.6 trillion, up by 32 percent year-on-year; outright repos registered RMB 5.5 trillion, up by 17 percent year on year. Interbank lending with maturities less than 7 days registered RMB 144.0 trillion, accounting for 98 percent of all interbank lending, which was the same with that of last year; pledged repos with maturities less than 7 days registered RMB 1330.0 trillion, accounting for 96.8 percent of all pledged repos, up by 0.6 percentage point compared with the same period last year.

Liquidity in the money market was adequate at a reasonable level, with interest rates fluctuating at a moderately low level and featuring a downward movement. Except for some special points, such as month-end and quarter-end days, for the whole year of 2022, money market interest rates first declined and then increased, keeping fluctuating. The weighted average rate of 7-day pledged repos for depository institutions (DR007) fluctuated between 1.5 percent to 2.5 percent. Liquidity remained adequate at a reasonable level. In the first quarter of 2022, DR007 maintained between 2 percent to 2.5 percent. In the second and third quarters, it declined to fluctuate between 1.5 percent and 2 percent. Since late October, the repo rate increased to about 2 percent, fluctuating around the policy rate. For the whole year, DR007 averaged 1.98 percent, down by 40 basis points compared with last year (Figure 4.1).

Figure 4.1　Money Market Interest Rates in 2022



Source: The CFETS.

2. FX Market

Volume of spot FX tradings declined while that of FX derivative tradings remained stable. In 2022, the cumulative trading volume of RMB/FX market reached USD 34.5 trillion, down by 6.4 percent y-o-y. Among these tradings, the volume of bank-to-client tradings was USD 5.8 trillion, up by 4.4 percent y-o-y; and the volume of interbank FX tradings was USD 28.7 trillion, down by 8.3 percent year-on-year. The volume of spot FX tradings was USD 12.6 trillion, down by 11.5 percent; and the volume of FX derivative tradings was USD 21.9 trillion, down by 3.3 percent.

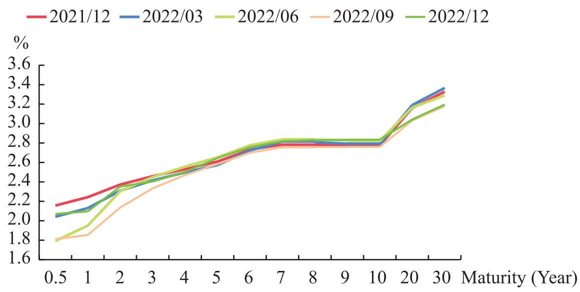
3. Bond Market

The bond market expanded steadily with increasing volume of spot transactions. For the whole year, the volume of spot transactions in the interbank bond market registered RMB 271.2 trillion, up by 26.5 percent year-on-year, and the average daily trading volume was RMB 1.0893 trillion. The volume of spot transactions in the exchange bond market was RMB 38.1 trillion, up by 31.8 percent, and the average daily trading volume was RMB 157.49 billion. The bond transactions over commercial banks' counters totaled 1.684 million, with the volume of RMB 213.45 billion.

Government bond yields remained generally stable with term spreads increasing. At end-2022, 1-year and 3-year government bond yields were 2.10 percent and 2.40 percent, down by 15 and 5 basis points respectively; 5-year and 10-year government bond yields were 2.64 percent and 2.84 percent, up by 4 and 6 basis points respectively (Figure 4.2). The spread between 1-year and 10-year government bond yields was 74 basis points, up by 21 basis points compared with that of 2021.

The bond market continued to open up. At end-2022, the outstanding bonds held by overseas institutions under custody reached RMB 3.5 trillion, accounting for 2.4 percent of all outstanding bonds under custody in China's bond market. Among these, the outstanding bonds held by overseas institutions under custody in

Figure 4.2 Change of Government Bond Yields in the Interbank Market



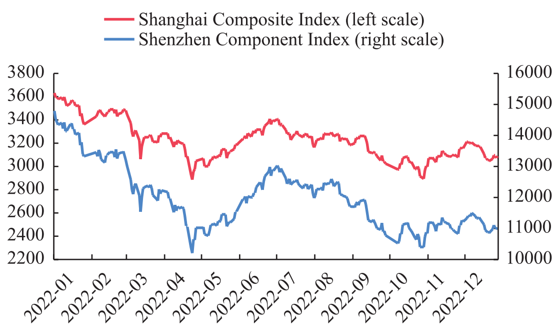
Source: The CCDC.

the interbank bond market registered RMB 3.4 trillion yuan. Divided by bond types, government bonds held by overseas institutions reached RMB 2.3 trillion, accounting for 67.7 percent of these institutions' bond portfolio; policy financial bonds held by these overseas institutions reached RMB 0.7 trillion, accounting for 22 percent of their bond portfolio.

4. Stock Market

The stock market went down with increasing volatility. In 2022, many factors, such as the COVID-19 pandemic, the Russia-Ukraine conflict as well as the Fed's rate hike, negatively impacted the market sentiment. The Shanghai Composite Index twice fell below the level of 3000 points. At end-2022, Shanghai Composite Index closed at 3089.26, down by 15.1 percent from the end of last year. The Shenzhen Component Index closed at 11015.99, down by 25.9 percent from the end of last year (Figure 4.3). Market valuation risk remained at a reasonable and relatively low level. At end-2022, the P/E ratio of Shanghai Composite Index stocks was 12.34, that of Shenzhen Component Index stocks was 24.58, that of Chinext was 38.91, and that of STAR 50 was 40.98.

Figure 4.3 Trend of Shanghai Composite Index and Shenzhen Component Index in 2022

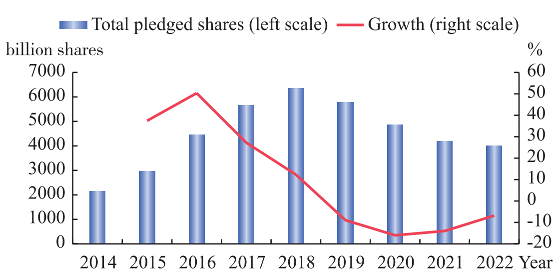


Source: Wind.

Trading vitality fluctuated slightly . In 2022, the total turnover of the Shanghai and Shenzhen stock exchanges registered RMB 224.5 trillion. The daily average turnover was RMB 927.7 billion, down by 13.0 percent year on year. The turnover ratio of the Shanghai stock market was 190.63 percent, down by 21.61 percentage points year on year. The turnover ratio of the Shenzhen stock market was 307.19 percent, down by 89.34 percentage points year-on-year. Trading vitality in the stock market fluctuated slightly.

Outstanding amount of pledged shares further decreased. At end-2022, the outstanding amount of pledged A-shares registered 400.836 billion shares, down by 2.88 percent year on year, declining for four consecutive years (Figure 4.4).

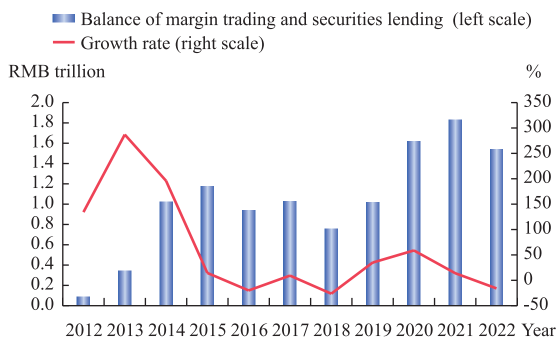
Figure 4.4 Outstanding Amount and y-o-y Growth of Shares Pledged by Shareholders of Listed Companies



Source: The CSDC.

The balance of margin trading and securities lending declined year on year. At end-2022, the balance of margin trading and securities lending registered RMB 1.540392 trillion, down by 15.93 percent year on year. Among this, the balance of margin trading accounted for 93.78 percent, and the balance of securities lending accounted for 6.22 percent (Figure 4.5). The proportion of margin trading balance to the market value of negotiable A shares was 2.18 percent, down by 0.11 percentage point compared with that at the end of last year.

Figure 4.5 Balance and y-o-y Growth of Margin Trading and Securities Lending



Source: The CSDC.

5. Futures and Options Market

The futures market was generally stable with declining trading volume. At end-2022, there were 110 futures and option products listed in domestic market. Among these, there were 65 commodity futures, 7 financial futures, 28 commodity options and 10 financial options. In 2022, the total trading volume of the Chinese futures and options market was 6.768 billion lots (one-sided, the same below), down by 9.93 percent year on year, which accounted for 8.07 percent of global trading volume, down by 4 percentage points year on year. The total value of all these contracts registered RMB 534.9 trillion, down by 7.96 percent year on year. Among this, the trading volume of commodity futures and options was 6.616 billion lots, accounting for 72.3 percent of the global trading volume, up by 2.5 percentage points year on year.

The trading volume of certain products such as agricultural and metal products was among the highest in the world. In 2022, domestic trading volume of agricultural, metal and energy products was among the top in the world. In terms of agricultural products, global top 10 highest-trading products were all domestic products; for top 20 highest-trading products, 16 products were domestic products, including 15 futures such as soybean meal futures and palm oil futures, as well as corn option. In terms of metals, for global top 20 highest-trading products, 14 products were domestic products, including 12 futures such as rebar futures and iron ore futures, as well as 2 options (iron ore option and copper option). In terms of energy, for top 20 highest-trading products, 5 products were domestic products, including fuel oil futures, petroleum asphalt futures, medium sour crude oil futures, LPG futures and LSFO futures.

6. Commercial Paper Market

Commercial paper financing continued to grow, and interest rates remained stable. In 2022, commercial drafts issued by enterprises totaled RMB 27.4 trillion, up by 13.4 percent year on year. At end-2022, the outstanding amount of commercial drafts registered RMB 17.4 trillion, up by 16.0 percent year on year. The outstanding amount of commercial paper acceptances saw steady growth, with the year-end outstanding commercial paper acceptances increasing by RMB 2399.7 billion. In 2022, commercial paper discounted by financial institutions reached RMB 53.9 trillion, up by 17.5 percent year on year. At end-2022, the balance of commercial paper financing registered RMB 12.8 trillion, up by 30.0 percent year on year, accounting for 6.0 percent of total outstanding amount of all kinds of loans, which was up by 0.9 percentage point. For the whole year, interest rates in the commercial paper market remained stable, first increasing and then declining.

7. RMB Interest Rate Derivatives Market

The RMB interest rate derivatives market functioned well. The number of RMB interest rate swap contracts executed in 2022 was 244000, down by 3.2 percent year on year; the notional principal amount was RMB 21.0 trillion, down by 0.4 percent year on year. Divided by maturity, swaps with maturity of 1 year or less than 1 year were most commonly traded, with a total notional principal amount of RMB 14.2 trillion, accounting for 67.6 percent of total trading volume of RMB interest rate swaps. Divided by the reference rate, the 7-day repo rate and Shibor were the major reference rates for the floating leg of RMB interest rate swaps. In terms of notional principal amount, swaps based on 7-day repo rate accounted for 89.3 percent and swaps based on Shibor accounted for 9.7 percent. There were also 834 transactions of swaps based on LPR, and the notional principal amount was RMB 124.04 billion. In 2022, there were 525 transactions of RMB interest rate option with the notional principal amount of RMB 71.8 billion, and there were 2910 transactions of standardized bond futures with the notional principal amount of RMB 260 billion.

8. Gold Market

Gold price first went up and then declined, and the trading volume increased. In 2022, the highest international gold price was USD 2039.05 per ounce, and the lowest price was USD 1618.20per ounce. At end-2022, the international gold price closed at USD 1813.75 per ounce, up by 1.08 percent year on year. The highest price for Au9999 of Shanghai Gold Exchange (SGE) was RMB 418.00 per gram, and the lowest price was RMB 275.05 per gram. The AU9999 price closed at RMB 410.49 per gram, up by 9.80 percent year on year. The cumulative trading volume in 2022 registered 38800 tons, up by 11.31 percent year on year, and the transaction amount reached RMB 15.18 trillion, up by 16.04 percent year on year. As for the international board of SGE, the trading volume of overseas members registered RMB 1.27 trillion, accounting for 60.63 percent of the international board; the trading volume of domestic members in the international board registered RMB 0.82 trillion, accounting for 39.37 percent.

II. Overview of Market Financing

Bond issuance remained stable. In 2022, bonds issued in China's bond markets totaled RMB 61.9 trillion, which remained almost unchanged compared with that of last year. Among this, RMB 56.0 trillion of bonds were issued in the interbank bond market, up by 5.4 percent year on year; RMB 6.4 trillion of bonds were issued in the exchange market. Divided by bond type, RMB 9.6 trillion of bonds issued were central government bonds, RMB 7.4 trillion were local government bonds, RMB 9.8 trillion were financial bonds, RMB 13.8 trillion were corporate bonds, RMB 334.54 billion were credit asset-backed securities, and RMB 20.5 trillion were interbank certificates of deposit (Table 4.1).

The outstanding amount of bonds under custody in China's bond market increased year on year. At end-2022, the outstanding amount of bonds under custody registered RMB 144.8 trillion, up by 8.5 percent year on year. Among this, the outstanding amount of bonds under custody in the interbank bond market registered RMB 125.3 trillion, up by 9.2 percent year on year; the outstanding amount of bonds under custody in the exchange market registered RMB 19.5 trillion , up by 3.9 percent year on year; and the outstanding amount of bonds under custody traded over commercial banks' counters registered RMB 41.61 billion.

Table 4.1 Amount of Bond Issuance and Bond under Custody in 2022

Types of Bond	Issuance (RMB trillion)	Bonds under custody (RMB trillion)	Y-o-y growth of bonds under custody (%)
Central government bonds	9.6	25.2	11.8
Local government bonds	7.4	34.9	15.2
Policy bank bonds	5.8	22.4	10.1
Other financial bonds	3.9	12.3	11.9
Interbank certificates of deposit	20.5	14.1	1.6

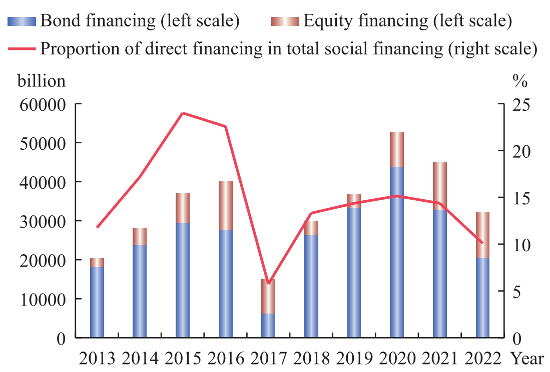
(Cont)

Types of Bond	Issuance (RMB trillion)	Bonds under custody (RMB trillion)	Y-o-y growth of bonds under custody (%)
Corporate credit bonds	13.8	31.7	3.0
Other	0.8	4.2	-10.3
Total	61.9	144.8	8.5

Source: The CSRC, CCDC, and Shanghai Clearing House.

IPO financing increased while refinancing declined. There were 424 IPOs on the Chinese stock market in 2022, down by 76 year on year. These companies raised RMB 580.002 billion, up by RMB 56.75 billion yuan, or 10.85 percent year on year. The Shanghai and Shenzhen stock exchanges became the world's first and second largest listing destinations respectively in terms of fund-raising. A total of 355 listed companies finished refinancing, down by 116 year on year, and they raised RMB 722.924 billion, down by RMB 110.838 billion, or 13.29 percent (Figure 4.6).

Figure 4.6 Direct Financing by Non-financial Enterprises and Its Proportion in Total Social Financing in 2013-2022



Source: The PBC.

Regional equity markets played an increasingly positive role in serving micro-, small- and medium-sized enterprises. In 2022, funds raised in regional equity markets reached RMB 211.327 billion. Among this, funds raised by share pledging registered RMB 92.399 billion, funds raised by equity financing registered RMB 74.572 billion, convertible bond RMB 22.401 billion, and other financing RMB 21.955 billion.

III. Institutional Development of Financial Markets

The registration-based IPO regime was fully implemented. Since 2018, the registration-based IPO regime has been adopted by the STAR market, the ChiNext market and the Beijing Stock Exchange. The pilot program gained significant success, and paved the way for a gradual reform path characterized by the pilot-first, increment-first, and board-by-board approach. On February 17, 2023, the CSRC, stock exchanges, National Equities Exchange and Quotations, CSDC and other relevant agencies released 165 rules to expand the registration-based IPO regime to the whole stock market. These rules covered many aspects of the IPO regime including listing criteria, registration procedures, underwriting, material asset restructuring, supervision enforcement and investor protection, etc. On April 10, the first batch of companies went on listing under the registration-based IPO regime in the Shanghai and Shenzhen stock exchanges, which marked the full implementation of the registration-based IPO reform. After four years of hard work, the registration-based IPO regime had been extended to the whole market. The major institutional arrangements stand the test of the market. The stock market performed stably and functioned in a significantly improved way in terms of market structure and ecology, effectively contributing to high-quality development.

The institutional arrangements of the bond market further improved. First, institutional arrangements for bond lending were improved. In February 2022, the PBC released the *Measures for the Administration of Bond Lending in the Interbank Bond Market*, which improved institutional arrangements for bond lending business in the interbank bond market from several aspects including unifying the content of bond lending agreements, launching centralized bond lending business, and improving the default resolution regime. The *Measures* also clarified requirements on risk management, including disclosure and reporting of high-value lending, risk monitoring and self-discipline management. The *Measures* would help protect market participants' lawful rights. Second, commercial banks were allowed to issue more kinds of financial bonds. In 2022, the PBC and the former CBIRC jointly released the *Notice on the Issuance of Total Loss-Absorbing Capacity Eligible Non-Capital Bonds by Global Systemically Important Banks*, which clarified key attributes and issuance regulations applicable to TLAC-eligible non-capital bonds. The *Notice* provided a guidance for G-SIBs to orderly issue TLAC bonds. Third, the bond registration system reform for the exchange bond market further deepened. In June 2023, the CSRC published the *Guidance on Deepening the Reform of Bond Registration System* and the *Guidance on Raising the Quality of Bond Business Practice by Intermediaries under the Registration System*. In line with the idea of integrating and coordinating the development of both corporate bonds and enterprise bonds, the two documents deepened the registration system reform by improving the review and registration mechanism of bond issuance, emphasizing the accountability of issuers and intermediaries, enhancing bond duration management and cracking down on illegal activities related to bond issuance.

The institutional arrangements of the futures market gradually improved. The *Futures and Derivative Law of the People's Republic of China* took effect in August 2022. The *Law* regulated trading, clearing and delivery of futures and derivatives and provided a framework for investor protection and market supervision. The *Law* would help the market to discover prices, manage risks and allocate resources, and encourage companies to use futures market to manage risk by ways such as hedging.

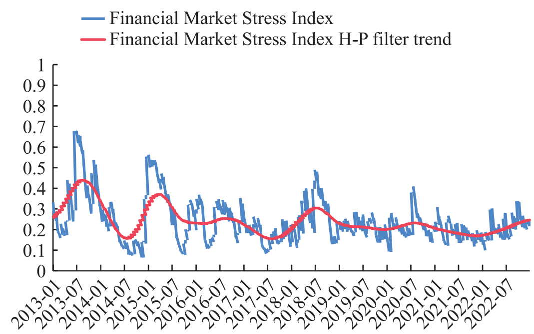
The capital market was increasingly opened. First, the Shanghai-Hong Kong and Shenzhen-Hong Kong Stock Connect Scheme was further improved. ETFs were added to the Stock Connect Scheme. Efforts were made to optimize the trading calendar of the Stock Connect Scheme. Scope of eligible stocks under the Stock Connect Scheme was also expanded. Second, China's bond market further opened to foreign investors. The *Notice on Issues Related to Further Facilitating Foreign Institutional Investors' Investment in China's Bond Market* and related fund management rules were published in 2022. Following the principle of "one system of rules, one bond market", these rules unified and improved requirements governing foreign investors' investment in China's bond market. The investment environment of China's bond market was also improved with the implementation of a series of new measures such as cutting fees for the Bond Connect Scheme, simplifying the registration procedures, improving the releasing mechanism of benchmark prices, publishing the revised *China Bond Market Handbook*, enhancing the efficiency of distributing bond ISIN code, and opening the ePrime cross-border primary subscription system. The Swap Connect transaction was formally launched, to further strengthen the connection between the mainland and Hong Kong, and help better meet foreign investors' needs for managing interest rate risk. Third, the futures market continued to open. In September 2022, four futures exchanges issued statements which identified the scope of the futures and derivatives that QFII and RQFII could invest in, further facilitating the transactions of foreign investors.

The innovation and pilot program on developing regional equity markets was steadily expanded. In 2022, pilot programs of institutional and business innovation, share transfer of private equity funds and block chain construction in regional equity markets continued to deepen. The pilot program on comprehensive services for warrants were launched. The ecology of regional equity markets has been improved. In November 2022, the CSRC and the Ministry of Industry and Information Technology jointly issued the *Guidance on Building the Special Board for Specialized and Sophisticated Technologies and Novel and Unique Business in Regional Equity Markets*, which enhanced the capital market's capacity in servicing such SMEs.

IV. Soundness Assessment of the Financial Market

The financial market functioned soundly in 2022. Since 2014, the PBC has selected and combined some indicators that can reflect stress in stock, bond, money and FX markets, and developed the Financial Market Stress Index. In 2022, the Financial Market Stress Index went up with some fluctuations, but remained at a relatively moderate level (Figure 4.7).

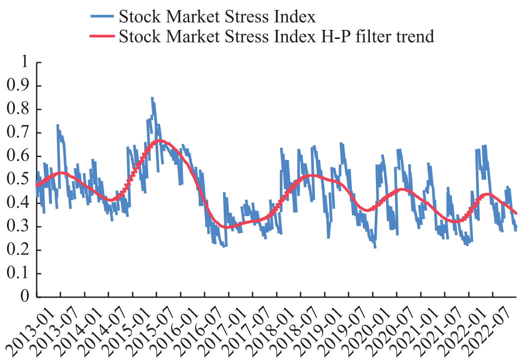
Figure 4.7 Financial Market Stress Index, 2013-2022



Source: The PBC.

The stress in stock market first went up and then declined. In 2022, major A-share indexes declined with decreasing trading volume. In general, the stress of A-share market first went up and then declined. In March and April, northbound capital showed net outflows and the A-share market fluctuated by a large margin due to factors such as Russia-Ukraine conflict and the Fed's rate hike. During that period, investors' sentiment was pessimistic, and the market stress temporarily increased. The A-share market rebounded since May as investor expectation started to improve. The valuation remained at a historically relatively low level, and market stress moderately declined (Figure 4.8).

Figure 4.8 Stock Market Stress Index, 2013-2022

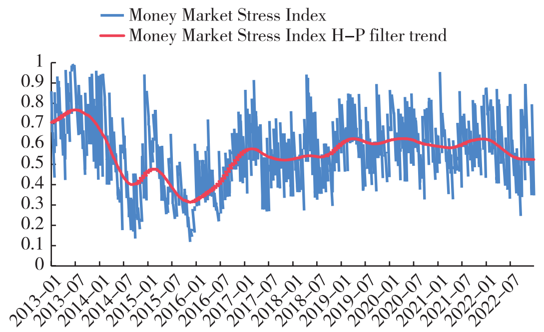


Source: The PBC.

The money market interest rates declined, and money market stress decreased as well. In 2022, the liquidity in the money market was adequate at a reasonable level, and money market rates trended down with market stress decreasing. Due to the impact of certain events, including the increasing household cash demand during the spring festival holidays, quarter-end evaluation by supervisors in March and June, the intensive issuance of local government bonds as well as tax and reserve payment in October, the money market experienced some stress at certain points, and volatility and liquidity risks temporarily increased. For the rest of time, market volatility and liquidity risks were generally trending downward (Figure 4.9).

Bond market pressure increased slightly at year end. From January to October 2022, due to the impact of slower economic growth and lower inflation, bond yields continued to decline, and volatility risk and credit risk premium decreased. In mid-November, as economic expectation improved and bond yields increased, the net

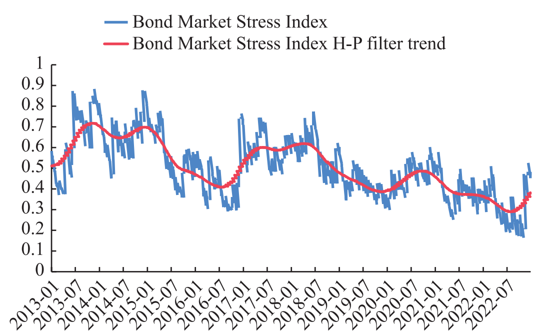
Figure 4.9 Money Market Stress Index, 2013-2022



Source: The PBC.

value of some wealth management products went down, triggering large-scale redemption. This added to the pressure of bond market adjustment, and the market stress quickly went up. In December, as the bond market recovered, the redemption pressure eased and market stress went back to a more stable level (Figure 4.10).

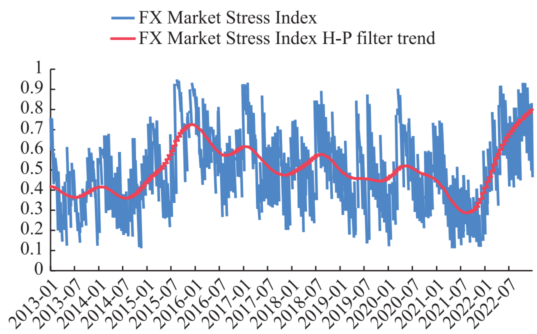
Figure 4.10 Bond Market Stress Index, 2013-2022



Source: The PBC.

FX market pressure increased. In 2022, the central banks of major advanced economies raised interest rates quickly, and the volatility of global FX market increased. From mid-April to the beginning of November, due to the impact of the Fed's rapid interest rate hike and the interest rate differential between China and US flipped, the RMB exchange rate against the USD depreciated, and its exchange rate against a basket of currencies remained stable. Pressure in the FX market went up and fluctuated around a mid-to-high level (Figure 4.11).

Figure 4.11 FX Market Stress Index, 2013-2022



Source: The PBC.

V. Outlook

Next step, further efforts will be made, following the principle of financial sector serving the real economy, to improve underlying institutional arrangements, to press ahead with the market-based reform, to promote the regulated development of financial market, and to guide financial resources to better support the key areas and weak links in economic and social development.

Further promoting the market-based interest rate reform. Efforts will be made to give full play to the LPR reform. Assessment will be conducted on the quality of banks' LRP quotes, to encourage banks to improve their quotation quality. LPR will play a more instrumental role in guiding market interest rates down. Efforts will also be made to give play to the market-based adjustment mechanism of deposit interest rates, and guide commercial banks to adjust their deposit rates on a reasonable basis, so as to further enhance the market-based pricing capacity of deposit rates and uphold the benign competitive order of the deposit market. Work will be done to push market financing costs to decline, creating enabling monetary and financial environment for the overall improvement and high-quality growth of the economy.

Promoting the high-quality development of the bond market. Efforts will be made to promote orderly connection of bond market infrastructures, facilitating the free flow of factors. The innovation of institutional arrangements and products will be enhanced to improve the coverage and inclusiveness of the bond market. The legal foundation of the bond market will be consolidated, and supervisory coordination and risk management will be strengthened. Efforts will be made to further regulate the underwriting activities and promote market-making functions, encouraging the integration of underwriting and market-making, building a stronger connection between the primary and secondary bond market, and enhancing the efficiency and transmission of bond pricing. Work will be done to accelerate the development of bond business over the counter, and to build a multi-layered bond market, enhancing the function efficiency of the interbank bond market and providing more diversified infrastructure services. Following the market-based and rule-based principles, and the idea of "zero tolerance", more efforts will be made to crack down on any violation of laws and regulations in the bond market. Opening the bond market to the foreign investors will be continued at a high level, creating a good and convenient environment for them to invest in Chinese bond market.

Pressing ahead with the stock market reform. The registration-based IPO reform will be deepened and strengthened with improved rules and arrangements. The mechanisms for delisting and for bankruptcy restructuring of listed companies will be improved, exploring more ways for companies to exit. The regulatory and supervisory mechanisms will be improved. Efforts will be made to amend the *Company Law*. Reforms will be accelerated on the investor-end with a better mechanism for individual investors to invest their pension funds in financial products, high-quality development of mutual funds, and more overseas investments in China's A-share market. Policies on direct financing and merger & acquisition will be tailored according to the needs of science and technology companies.

Further developing the FX market. Reforms and opening up on FX areas will be strengthened. Policies facilitating eligible companies to exchange their FX trade incomes will be expanded to more companies. Efforts will be made to support and regulate new business models in trade. Services for micro-, small- and medium-sized companies on hedging exchange rate risks will be improved. The applicable scenarios of cross-border financial service platforms will be explored and diversified. FX management policies will be more innovative and improved, serving the national and regional developing strategies. Efforts will be made to monitor and prevent cross-border capital flow risks, and to enhance macroprudential management and guide expectations.

Pushing forward the healthy development in the commercial paper and gold market. The newly revised Measures for the Administration of Acceptance, Discount and Central Bank Discount of Commercial Drafts will be actively and steadily implemented, clarifying the nature and classification of relevant papers, emphasizing the real transaction background, and strengthening the information disclosure and credit constraint mechanisms. With the focus on the functions of commercial papers, the functions of supply-chain commercial paper system will be optimized and the comprehensive platform of paper services will be built. The product system of Chinese gold market and the institutional arrangements will be improved. The Interim Administrative Measures for Gold Leasing Business will be implemented, promoting the healthy development of gold leasing business, preventing market risks and better serving the real economy.

Chapter V

Macroprudential Management

In the context of the complex and volatile international situation in 2022, the international community continued to improve existing macroprudential policy framework, and made efforts to push forward the implementation of agreed international financial regulatory reforms, the global financial risk monitoring, and the assessment and mitigation of emerging risks including crypto-assets and climate related risk. Drawing on international experiences, the Chinese authorities have taken measures to improve the macroprudential management, strengthen financial policy coordination, monitor and assess systemic risk levels on a ongoing basis, and diversify macroprudential policy toolkit, so as to ensure that no systemic risks arise.

I. Progress on the implementation of international financial regulatory reforms

1. Improve and implement the Basel III Framework

Following the publication of *Basel III: Finalizing Post-crisis Reforms* in 2017, the BCBS have switched its priorities from rules development to rules implementation, effectiveness evaluation and ongoing improvement. First, the BCBS has been reviewing member jurisdictions' implementation progress of Basel III. Since 2012, the BCBS has been conducting RCAP to assess Basel III implementation in member jurisdictions. In 2022, EU, Japan and South Africa completed the assessment on their implementation of the NSFR and LEX requirements. The assessment results show that their NSFR and LEX frameworks are consistent or largely consistent with the BCBS global standards. Second, the BCBS has been monitoring and evaluating emerging risks such as climate risk and crypto risk, and their implications on the banking sector. The BCBS *Principles for the Effective Management and Supervision of Climate-related Financial Risks* was released in June 2022, and the *Prudential Treatment of Crypto-assets Exposures* in December 2022.

2. Ending "Too Big to Fail"

The G-SIBs list was updated. In November 2022, the FSB released the updated list of G-SIBs based on the end-2021 data. The same 30 banks as in 2021 were designated as G-SIBs, though the buckets of specific banks changed. For example, China Construction Bank moved from bucket 2 to bucket 1, BNP Paribas moved from bucket 3 to bucket 2, Bank of America moved from bucket 2 to bucket 3. Following the annual designation in November each year, the newly designated G-SIBs will be subject to higher capital buffer requirements in 14 months (starting January 2024)(Table 5.1).

Table 5.1　The Updated List of G-SIBs

Bucket (Higher Capital Buffer Requirements)	G-SIBs
5 (3.5%)	
4 (2.5%)	JP Morgan Chase

(Cont)

Bucket (Higher Capital Buffer Requirements)	G-SIBs
3 （2.0%）	Bank of America
	Citigroup
	HSBC
2 （1.5%）	Bank of China
	Barclays
	BNP Paribas
	Deutsche Bank
	Goldman Sachs
	Industrial and Commercial Bank of China
	Mitsubishi UFJ FG
1 （1.0%）	Agricultural Bank of China
	Bank of New York Mellon
	China Construction Bank
	Credit Suisse
	Groupe BPCE
	Groupe Crédit Agricole
	ING Bank
	Mizuho FG
	Morgan Stanley
	Royal Bank of Canada
	Santander
	Société Générale
	Standard Chartered
	State Street
	Sumitomo Mitsui FG
	Toronto Dominion
	UBS
	UniCredit
	Wells Fargo

Note: Credit Suisse has been acquired by UBS in 2023.
Source: *2022 List of Global Systemically Important Banks* by the FSB, November 2022.

Box 9 International Practice of Systemically Important Insurers Assessment

In the wake of the 2008 Global Financial Crisis, addressing "too big to fail" and strengthening the regulations on systemically important financial institutions became important components of the global financial regulatory reforms. As a result, the designation of systemically important insurers and additional requirements was introduced to prevent against systemic financial risks and improve macroprudential regulation. Systemically important insurers consist of Global Systemically Important Insurers (G-SIIs) and Domestic Systemically Important Insurers (D-SIIs). The former is designated by international organizations and the latter by national regulatory authorities.

I. Early Practice of Systemically Important Insurers Assessment

The assessment and designation of systemically important insurers was generally going well before 2016. According to the requirements of the G20 Summit and the Financial Stability Board (FSB), the International Association of Insurance Supervisors (IAIS) is responsible for developing G-SII assessment methodology and rules, conducting annual assessment and risk monitoring, while the FSB is responsible for publishing the G-SII list based on the IAIS assessment results. In 2013, IAIS released the first G-SII assessment methodology and additional regulations, while the FSB released the first G-SII list and promoted the establishment of effective recovery and resolution regimes for designated G-SIIs. The key to designating G-SIIs is to assess the systemic importance of the participating insures, i.e. to quantify the negative impact of their failures to the financial system and to the real economy. Based on the analysis of insurers' business and risk profiles, the IAIS developed a set of G-SII assessment indicators in the following five dimensions: size, interconnectedness, substitutability, asset liquidity and cross-border activities. From 2013 to 2016, the FSB designated 9 G-SIIs annually, and Ping An Insurance (Group) Company was the only Chinese G-SII (Table 1).

Table 1 G-SII List

	Insurers	2013-2014	2015-2016	2017-2022
1	American International Group, Inc.	√	√	G-SII list is no longer updated
2	MetLife, Inc.	√	√	
3	Prudential Financial, Inc.	√	√	
4	Aviva plc	√	√	

(Cont)

	Insurers	2013-2014	2015-2016	2017-2022
5	Prudential plc	√	√	G-SII list is no longer updated
6	Allianz SE	√	√	
7	Axa S.A.	√	√	
8	Aegon N.V.	×	√	
9	Assicurazioni Generali S.p.A.	√	×	
10	Ping An Insurance (Group) Company of China, Ltd.	√	√	

The core of strengthening G-SII regulations is to reduce their probability of failure and the consequent negative spillovers. Specific requirements include: firstly, higher loss absorbing for G-SIIs, and additional capital requirements on top of existing capital requirements to make sure G-SIIs have enough capital to absorb losses in normal operations; secondly, group-wide supervision for GSIIs, authorizing national regulators to have supervision at the group-level, and overseeing the development and implementation of G-SII's systemic risk management plans and liquidity management plans to avoid regulatory gaps and loopholes; thirdly, resolvability requirements for G-SIIs, namely, the development of recovery and resolution plans at the group-level, the establishment of cross-border crisis management groups led by home authorities and resolvability assessments on a regular basis.

The United States and Russia are among the first countries to conduct D-SII assessments. A Financial Stability Oversight Council (FSOC) was introduced by the US under the *Dodd Frank Act* to designate domestic systemically important nonbank institutions (primarily D-SIIs), who will then be subject to enhanced supervision of the Federal Reserve. From 2013 to 2014, the FSOC successively designated American International Group, Prudential Financial Group, and MetLife Group as systemically important nonbank institutions, and these three insurance groups were also designated as G-SIIs. In 2015, the Central Bank of the Russian Federation issued the D-SII assessment methodology, and designated 22 D-SIIs from 4 dimensions: size, interconnectedness, asset liquidation and substitutability.

II. Recent progress in the assessment of systemically important insures internationally

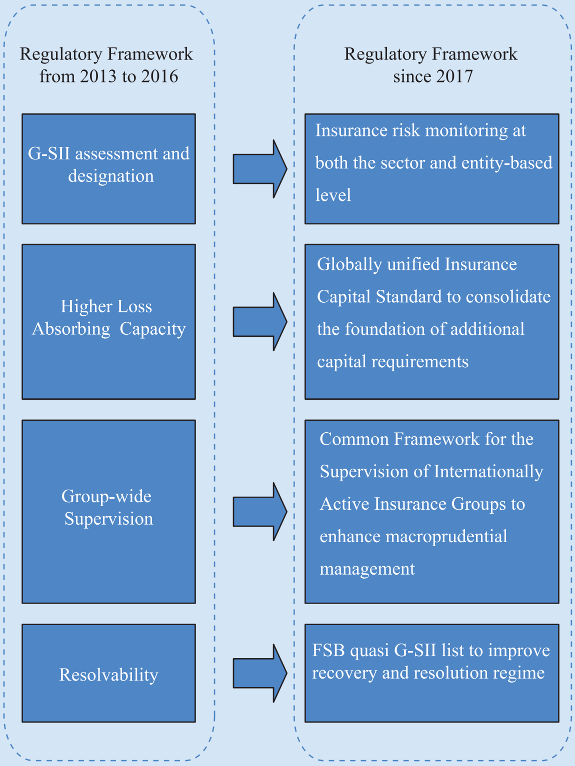
From 2017 to 2022, the international

assessment and designation of systemically important insures was inactive. In order to avoid additional capital and compliance costs, MetLife Group sued against the FSOC for revocation of its designation, marking the opposition from the insurance industry against any potential nonbank designation. From 2017 to 2018, the FSOC revoked the systemically importance designation of three insurance groups, and introduced new regulations in 2019, emphasizing the use of business or sector-based methods rather than institution-based methods to mitigate systemic risks of nonbank institutions. Since then, the FSOC has not designated any new systemically important nonbank institutions. Due to various reasons, the FSB suspended the G-SII designation in 2017, and subsequently issued statements in 2019 and 2022 on further suspending the designation of G-SIIs.

Despite setbacks, substantive work is still being carried out by the international community, including a more clearly defined policy framework for G-SII designation and enhanced regulation (Figure 1). Firstly, risk monitoring and assessment of specific insurers[①] are strengthened. In November 2019, the IAIS released the *Holistic Framework for Systemic Risk in the Insurance Sector* and a global monitoring guidance. Since 2020, IAIS has collected data from approximately 50 specific insurers annually for risk monitoring and assessment, and monitored global market trends in the insurance sector. Secondly, a globally unified Insurance Capital Standard (ICS) is developed. The IAIS has monitored the rationality and applicability of ICS since 2019. The monitoring period was set from 2019 to 2024, during which capital regulatory requirements in each jurisdictions shall still apply. Thirdly, the regulation and supervision on internationally active insurance groups (which has a wider scope than G-SIIs) is enhanced. In November 2019, the IAIS issued the *Insurance Core Principles and Common Framework for the Supervision of Internationally Active Insurance Groups*, extending the group regulatory requirements for G-SIIs to internationally active insurance groups. As of February 2023, a total of 52 internationally active insurance groups have been designated among 17 jurisdictions, with the vast majority of previously designated G-SIIs covered by this designation. Fourthly, the recovery and resolution regime for insurance companies is ongoing. To ensure that reform measures related to the resolution regime applicable to systemically important financial institutions in the *Key Attributes of Effective Resolution Regimes for Financial Institutions* can be consistently implemented in the insurance sector, the FSB explores to develop a list of insurance groups subject to the recovery and resolution regime (equivalent to a quasi G-SII list).

① The criteria of specific insurers are: 1. The total assets exceed USD 60 billion, and cross-border premiums account for more than 5 percent of the total premiums; Or 2. The total assets exceed USD 200 billion, and the cross-border premiums account for a positive ratio of the total premium. The criteria are consistent with the threshold of G-SII participating institutions.

Figure 1 G-SII Assessment and Regulatory Framework



In the past years, some major jurisdictions have continued to carry out D-SII designation based on their specific national conditions. In 2020, the Indian Insurance Regulatory and Development Authority issued the assessment methodology and designated three D-SIIs by four dimensions: size, interconnectedness, substitutability and cross-border activities. In the same year, the South African Reserve Bank released the assessment methodology for public consultation, aiming to assess D-SIIs from four dimensions: size, interconnectedness, substitutability and complexity. In 2023, the Monetary Authority of Singapore issued its assessment methodology and designated four D-SIIs from four dimensions: size, interconnectedness, substitutability and complexity (Table 2). The EU has not yet released a D-SII list, but the European Insurance and Occupational Pensions Authority has been conducting risk monitoring on 32 large insurance groups on a quarterly basis since 2013. It also clearly requires additional capital for D-SIIs as part of the EU insurance solvency regulatory requirements and plans to establish an insurance recovery and resolution regime.

Following the banking turmoil in the United States and Europe in 2023, the international regulatory community's attitude is increasingly tilt to its early practice. On April 21, 2023, the FSOC decided to further improve the systemic financial risk monitoring, assessment, and prevention framework in the United States, and released the new *Interpretive Guidance on Nonbank Financial Company Determinations* for public consultation. By doing this, the FSOC plans to resume the designation of systemically important nonbank institutions. This guidance is now officially issued and come into force on November 3. The IAIS released the *Report on the Targeted Jurisdictional Assessment of the Implementation of the Holistic Framework Supervisory Material* on April 4, 2023, which indicates that despite temporary suspension of the G-SII designation, jurisdictions are still encouraged to designate their own D-SIIs.

Table 2 The released D-SII assessment methodologies and lists by major jurisdictions

Regulatory Authority	Release Date	Dimensions of assessment indicators	Number of D-SIIs
FSOC	April 2012	Size, interconnectedness, substitutability, leverage, liquidity and maturity mismatch, supervisory profile	3 (already undesignated)
Central Bank of the Russian Federation	July 2015	Size, interconnectedness, asset liquidation and substitutability	22
Indian Insurance Regulatory and Development Authority	September 2020	Size, interconnectedness, substitutability and cross-border activities	3
South African Reserve Bank	October 2020	Size, interconnectedness, substitutability and complexity	-
Monetary Authority of Singapore	September 2023	Size, interconnectedness, substitutability and complexity	4

III. Establishing the assessment framework of systemically important insurers in China

Establishing the D-SII assessment and designation framework in China is an important part of preventing systemic financial risks, improving macroprudential management and strengthening the financial stability guarantee system. According to the *Guidance on Improving the Regulations on Systemic Important Financial Institutions*, the PBC and the NFRA have developed and officially released the *Assessment Methodology for Systemically Important Insures* (hereinafter referred to as the *Methodology*) in October 2023, which clarifies the assessment methodology, procedures and thresholds for D-SIIs in China. According to the *Methodology*, the assessment scope of D-SIIs includes top 10 ranking insurance groups, life insurance companies, property insurance companies and reinsurance companies in terms of asset size, as well as institutions that were designated as D-SIIs in the previous year. The assessment is conducted from four dimensions: size, interconnectedness, asset liquidation and substitutability for Chinese D-SIIs designation. Next, the PBC and the NFRA will jointly carry out the assessment and designation of systemically important insurers in China in accordance with the *Methodology*, and develop additional regulatory rules. The authorities will enhance supervision efforts from both the macroprudential and microprudential perspective, to promote the sound and high-quality business development of systemically important insurers and to provide a solid foundation for financial system stability and greater support for the economic and social development.

3. Promoting effective resolution regimes

Promoting the implementation of the ***Key Attributes of Effective Resolution Regimes for Financial Institutions*****.** According to the FSB's evaluation, the implementation progress of the *Key Attributes of Effective Resolution Regimes for Financial Institutions* (hereinafter referred to as *Key Attributes*) is uneven across sectors. The banking sector is leading the way in this respect, where G-SIBs have implemented the resolution planning requirement, and future work will focus on any resolution plan improvements and effectiveness test. For the insurance sector, the IAIS has prioritized its efforts on systemic risk prevention at the international level in accordance with the *Holistic Framework for Systemic Risk in the Insurance Sector*, and suspended identification of G-SIIs. The FSB and the IAIS will explore ways to ensure the effective implementation of *Key Attributes* in the insurance sector. It is worth noticing that some national authorities are carrying out D-SIIs identification by themselves. As for CCPs, the FSB is carrying out cost-benefit analysis on financial resources and instruments in CCPs resolution, to ensure sufficient and available financial resources in CCPs resolution. Home jurisdictions of 13 CCPs that are identified as systemically important in more than one jurisdiction have established their CMGs and developed resolution plans, and most CCPs have established mechanisms for cross border cooperation and information sharing. By December 2022, these CCPs had not yet completed their resolvability assessment.

Box 10 Identification of Critical Functions of Insurers: Practices and the Latest Progress

I. Definition of Insurers' Critical Functions by the FSB

In 2020, the FSB issued the *Key Attributes Assessment Methodology for the Insurance Sector*, in which critical functions of insurers are defined as activities performed by an insurer for third parties that cannot be substituted within a reasonable time and at a reasonable cost, and where the failure to perform the activities would be likely to have a material impact on the financial system and the real economy, for example, by giving rise to risk contagion or undermining market confidence. For this reason, it is of foremost importance to ensure continued provision of critical functions or its orderly wind-down in resolution.

The identification of critical functions is an important part of the recovery and resolution planning. It helps to fast identify key resolution points in a crisis, and inform a well-targeted and operable recovery and resolution plan. According to the FSB's *Developing Effective Resolution Strategies and Plans for Systemically Important Insurers*, the identification of critical functions should entail three steps, i.e. (1) an analysis of the impact of a sudden discontinuation of the function; (2) the evaluation of the substitutability of the function; and (3) a firm-specific analysis of the impact of a failure of the continued performance of the function by a specific insurer.

II. Identification of Critical Functions of Insurers: Domestic Practices

China is one of the first jurisdictions who have established the recovery and resolution regime for insurers. In 2013, Ping An Insurance Group was identified as a G-SII, and was required to develop and update recovery and resolution plans on a regular basis. In 2021, the former CBIRC released the *Regulations on the Implementation of the Recovery and Resolution Planning for Banks and Insurers (Provisional)*. The *Regulations* make more insurers that meet a certain criteria subject to recovery and resolution planning, and provide guidance and examples for them to follow.

In terms of assessment methodology, China adopts a bottom-up approach requiring insurers to consider, based on their financial products and services, a set of factors including size, net amount at risk, client base, market impact and substitutability, for critical function assessments. This self-assessment will then be submitted to the regulatory authority for review and approval.

In terms of assessment results, a variety of critical functions have been identified, given the vast differences of insurers in their size, business structures, and market specialization. The identified critical functions include the following list: (a) insurance functions such as insurance underwriting, insurance payment, insurance preservation; (b) insurance products such as vehicle insurance, agricultural insurance, life insurance; and (c) insurers' non-insurance activities such as banking business via their banking subsidiaries, and capital market activities.

III. Identification of Critical Functions of Insurers: International Progress

In recent years, there has been positive progress in the identification of critical functions of insurers at the jurisdiction level. In 2022, the FSB conducted a survey for 4 jurisdictions, i.e. China, France, Netherlands and Australia, on their identification of critical functions of insurers. Overall, the following insurance functions are eligible for being identified as critical, due to their implications on financial stability and the real economy: insurance underwriting, insurance payout, fund and pooling of risks.

Insurance underwriting. In certain jurisdictions, insurance coverage is a precondition for certain economic activities. For instance, insurance coverage would be required before doing business in the shipping, medical care and legal consulting sectors. The discontinuity of insurance services in those sectors may cause a disruption to their business operation, and further impact the real economic operation as a whole.

Insurance payout. In certain jurisdictions, insurance payout is vital to household income. For example, saving-type life insurance products would affect households' future income, and some medical insurance would help potential future expenditures. The discontinuity of such insurance products may harm households' financial well-being as they are hard to be replaced in the market within a short time due to their high market shares or uniqueness, and further take a toll on overall economic activities.

Insurance fund investment. Insurers are important institutional investors in the financial market. Life insurers, for example, have structural advantage than other investors as they feature the longer-term liability structure, and are able to provide longer-term funding in the financial market. If a disruption occurs to their business operation, it may cause funding gaps in the financial market, and have negative impact on the financing of the real economy. If insurers involve in fire sales, the resulting price falls may pass on to financial institutions with similar asset portfolios and put their balance sheets under pressure, which may have implications on financial stability.

Risk pooling. This mainly refers to reinsurance services provided by reinsurance companies against the original insurers. Reinsurance companies serve to mitigate risks of huge payouts, iron out fluctuations in profits, and improve risk resilience of original insurers. In addition, reinsurance companies can provide important technical assistance to original insurers, such as insurance verification, product design, actuary pricing and system design. As a result, disruptions in reinsurance may impair risk pooling of the insurance sector, and negatively impact financial system stability and the insurance sector' s ability to support the real economy.

In practice, China and other jurisdictions share commonalities regarding how to approach the identification of critical functions of insurers, as we both build our assessment on considerations such as size of insurer, market share, market concentration and type of policyholders, etc. When making the assessment, different jurisdictions adopt different approaches based on their national circumstances. For example, France identifies compulsory insurance such as vehicle insurance and agricultural insurance as critical functions, based on considerations that these functions are of fundamental importance to the normal operations of economic activities. The Netherlands identifies critical functions from the point of protecting public interests. Australia evaluates, at the system-wide level, the potential impact of the discontinuation of a function on both customers and the wider financial system, and uses the results to inform the critical function identification.

Pushing forward the implementation of TLAC requirements. All G-SIBs, except for those headquartered in the EMEs, have met the 2022 TLAC requirements of 18 percent of the RWA and 6.75 percent of the leverage ratio denominator in advance. G-SIBs headquartered in the EMEs should meet these requirements by 2025. The issuance of external TLAC continues, while the issuance of AT1 tools decreased significantly compared to other types of TLAC tools. About USD 230 billion of TLAC eligible instruments were issued in the second half of 2021, higher than the USD 155 billion issued in the second half of 2020, while about USD 242 billion of TLAC eligible instruments were issued in the first half of 2022, lower than the USD 290 billion issued in the first half of 2021. The implementation of internal TLAC requirements progressed steadily, with 8 G-SIBs have developed or been revising their internal TLAC requirements for important subgroups.

4. Monitoring NBFI risks

In December 2022, the FSB published the *Global Monitoring Report on Non-bank Financial Intermediation 2022* based on the end-2021 data covering 29 jurisdictions. Based on the broad measure, the size of global NBFIs grew by 8.9 percent to USD 239.3 trillion by the end of 2021, accounting for about 49.2 percent of total financial assets in participating jurisdictions. Based on the narrow measure, the size of global NBFI grew by 9.9 percent to USD 67.8 trillion, accounting for 14.1 percent of total financial assets in corresponding jurisdictions. The ratio of NBFI size in narrow measure to total financial assets has increased since 2021. Among all participating jurisdictions, China ranked the third with a narrow measure of NBFIs in USD 11.4 trillion, following the U.S. (USD 20.5 trillion) and the EU (USD 15.7 trillion).

5. Evaluating and addressing climate-related financial risks

The international community has made positive progress in addressing climate-related financial risks in 2022. First, the implementation of the FSB *Roadmap for Addressing Climate-related Financial Risks* is making steady progress. In terms of information disclosure, the ISSB published two landmark consultative documents on climate and sustainability related disclosure, namely the *General Requirements for Disclosure of Sustainability-Related Financial Information* and *Climate-Related Disclosures*. In terms of data, the NGFS has established a directory of available climate data resources. In terms of vulnerabilities analysis, the FSB is exploring key climate risk areas and monitoring metrics to be integrated into its global surveillance framework for financial risks. In terms of regulatory and supervisory practices/tools, the BCBS published *Principles for the Effective Management and Supervision of Climate-related Financial Risks* in June 2022, setting out principles covering bank corporate governance, internal control, risk management, supervisors' mandates and prudential regulatory requirements. Second, a stocktake of climate scenario analysis exercises adopted by FSB member jurisdictions was undertaken. The majority of jurisdictions used the NGFS Scenarios[①], which was in line with the FSB view that scenario designs should be internationally comparable. Exercise results show more significant GDP and financial losses under disorderly transition scenarios compared with orderly transition scenarios. Many

① NGFS published *Guide to Climate Scenario Analysis for Central Banks and Supervisors* in June 2020, included three scenarios, namely orderly transition, disorderly transition and hot house world.

exercises report that measures of exposure and vulnerability are likely understated, and that the findings of the exercises do not translate into micro or macroprudential responses at this stage.

6. Developing regulatory rules on crypto-assets

In February 2022, the FSB issued *Assessment of Risks to Financial Stability from Crypto-assets*, pointing out that crypto-assets markets were fast evolving and could reach a point where they represent a threat to global financial stability. In July 2022, the FSB made a statement on international regulation and supervision of crypto-assets activities, suggesting that crypto-assets regulation should be grounded in the principle of "same activity, same risk, same regulation". Based on studies on member jurisdictions' regulatory practices on crypto-assets, in July 2023, the FSB finalized the global regulatory framework for crypto-assets. In the same month, the FSB published two high-level regulatory recommendations, namely the *High-level Recommendations for the Regulation, Supervision and Oversight of Crypto-assets Activities and Markets* and the *High-level Recommendations for the Regulation, Supervision and Oversight of Global Stablecoin arrangements*. The former defined the function and characteristics of crypto-assets and markets, clarified regulatory scope of the framework, conducted stock-take on current regulations of crypto-assets, and proposed policy recommendations on regulatory framework and power, cross-border cooperation and information sharing, governance and risk management of crypto-assets issuers and service providers, data collection and information disclosure, and financial stability risk mitigation. The latter recommended that regulatory authorities have sufficient powers and tools, apply regulatory requirements on a functional basis, require that global stablecoin arrangements have comprehensive risk management frameworks and effective risk management frameworks in place, and develop appropriate recovery and resolution plans, etc.

7.Others

First, implementation of the OTC derivatives market reforms is underway. As of September 2022, 18 out of 24 FSB member jurisdictions have higher final capital requirements for non-centrally cleared derivatives, up from 15 in 2021, while overall implementation progress of other reforms remains the same with last year. Second, steady progress has been made towards implementing the *Principles for Sound Compensation Practices and their Implementation Standards*, with implementation in the banking sector tends to be most advanced. While compensation deferral and in-year adjustments are still commonly used, clawback continues to face legal and practical obstacles. To encourage the financial sector to provide credit support to the real economy, some member jurisdictions had taken compensation-related measures in response to the COVID-19 pandemic, and most of those jurisdictions have now withdrawn or discontinued these measures. Third, wider adoption of LEI is witnessed. By the end of 2022, 33 jurisdictions had been authorized to issue LEIs and over 2.29 million entities had received their LEIs.

II. Major Economies'Practices

1. The United States

Monitoring and assessing systemic risks. The Federal Reserve published its Financial Stability Report in November 2022, which assessed financial stability and vulnerabilities in the U.S. since 2022. According to the report, higher interest rates and a weaker outlook have contributed to the fall of volatile financial asset prices, while real estate price remained very elevated and debt vulnerabilities in the corporate and households sectors remained moderate. Banks' capital adequacy ratios have remained in the middle of the range that has prevailed since 2010 and leverage at broker-dealers stayed at low levels. Leverage at life insurance companies decreased this year to the middle of its historical distribution, whereas hedge fund leverage continued to be somewhat elevated. Funding risks at U.S. banks are low, but structural vulnerabilities persist in several MMFs and stablecoins, making them vulnerable to runs. The report says that the US financial system is still faced with near-term risks. For example, persistently high inflation and interest rates could pose risks to the economy and the financial system. Shocks caused by cyber events, especially cyber attacks, could impair the U.S. financial system.

Conducting stress tests. The Federal Reserve published the results of the stress test participated by 34 large banks in June 2022. The test results indicate that all banks pass the test with adequate capital to absorb losses. The severely adverse scenario assumes that a severe global recession is accompanied by a period of heightened stress in commercial real estate and enterprises debt markets; the U.S. real GDP falls by more than 3.5 percent to its trough in the first quarter of 2023, and unemployment rate climbs to a peak of 10 percent in the third quarter of 2023. Under this scenario, the aggregate CET1 ratio of participating banks declines from 12.4 percent at the end of the 2021 to a minimum of 9.7 percent in the testing period, still higher than twice of the required minimum level (4.5 percent), and the aggregate losses are projected to be USD 612 billion. Based on the test results, all participating banks are subject to Fed's differentiated stress capital buffer (SCB) requirements.

Improving the financial regulatory framework. First, improving the orderly resolution of large banks. The Federal Reserve and the FDIC is considering to issue guidance on orderly resolution to large banks that are not G-SIBs, which includes a long-term debt requirement, "clean holding company[①]" requirements and other options. Second, addressing risks of crypto-assets and stablecoins. The Federal Reserve issued a supervisory letter *Engagement in Crypto-asset Related Activities by Federal Reserve-Supervised Banking Organizations*, emphasizing that Federal Reserve-supervised banking organizations should notify the Federal Reserve prior to engaging in crypto-asset related activities, and

① The requirement includes prohibitions on top-tier holding companies of the G-SIBs on issuance of short-term debt to external investors and on entry into derivatives and certain other types of financial contracts and arrangements that would create obstacles to an orderly resolution.

have sufficient risk management capacity and internal control measures to assess and mitigate relevant risks. Third, coping with climate change related financial risks. The Federal Reserve intends to work with the OCC and the FDIC to propose guidance for the banking sector on the management of climate-related financial risks. The Federal Reserve will also conduct a pilot microprudential climate scenario analysis exercise in 2023 to enhance the ability of supervisors and banks to measure and manage climate-related financial risks.

2. The European Union

Monitoring and assessing systemic risks. The ECB published its Financial Stability Review in November 2022, which indicates that financial stability risks increase as macroeconomic conditions in the EU continue to weaken. Prices of some risky assets, such as U.S. equities, still show rising market valuation and therefore remain sensitive to the uncertain path of inflation and monetary policy adjustment. More volatile financial markets amplify the risk of disorderly market adjustments. Sovereign vulnerabilities have increased amid ongoing fiscal support to cushion the impact of higher energy prices and a weaker economic outlook. Higher financing costs have led enterprises earnings growth expectations to turn negative. High inflation is weighing on the disposable income and debt servicing capacity of lower-income Euro Area households in particular. Signs of a turn appears in the real estate sector. Rising interest rates have bolstered the short-term profitability outlook of Euro Area banks, but a weaker economy and increased credit risk may weigh on bank profitability prospects in the medium term.

Conducting stress test. The EBA published the results of EU-wide bank stress test in July 2023. 70 banks from 16 jurisdictions participated in the test, covering 75 percent of total banking assets. The adverse scenario envisages that real GDP in the EU will further decline by a total of 6 percent in a three-year horizon, unemployment rate will jump to 12.2 percent, with higher inflation, increasing interest rates and substantial declines in asset prices. Under the adverse scenario, sample banks remain resilient with the weighted average CET1 ratio falling to 10.4 percent in 2025 from 15.0 percent at the end of 2022, mainly due to credit risk losses, which contributes to a 4.05-percentage point decline in CET1 ratio.

Improving the macroprudential policy framework. In 2022, as the pandemic impact seems to decline, several EU jurisdictions have increased their capital buffer requirements under stronger employment, steady housing prices and increasing household debt conditions. For instance, Germany, France and Bulgaria decided to increase their CCyB, while Germany, Lithuania and Slovenia applied sectoral systemic risk buffer requirements. The ECB has required banks to include central bank exposure in leverage ratio calculation since 1 April 2022, and removed the exemption of minimum regulatory requirements for capital adequacy during the pandemic since 1 January 2023.

Monitoring the non-bank financial intermediation. The ESRB published its *EU Non-bank Financial Intermediation Risk Monitor* in July 2022. By the end of 2021, the EU non-bank financial intermediation measure totaled about EUR 42.6 trillion, an increase of

9 percent compared with end-2020. The non-bank financial intermediation is faced with both cyclical and structural risks. Cyclical risks include uncertainty around the pace of economic recovery, increasing credit risks led by high private and public sector indebtedness, and procyclical adjustment of asset prices triggered by economic and financial environment. Structural risks include a high level of liquidity and maturity transformation of investment fund, amplification of risks to the financial system due to derivatives that are used by several non-bank financial intermediation to increase exposure, and increased interconnectedness in non-bank financial intermediation. Meanwhile, investment funds that are predominantly held by non-EU residents could have cross-border spillovers. The low real interest rate environment has also provided incentives for non-bank financial intermediation to search for high yield blindly.

3. The United Kingdom

Monitoring and assessing systemic risks. The FPC of the Bank of England published its *Financial Stability Report* in December 2022. The report assesses that the global economic outlook has deteriorated and financial conditions have tightened significantly. The deterioration in the global economic outlook, together with heightened uncertainty of further adverse geopolitical developments, has also led to falls in risky asset prices and a reduction in investor risk appetite. Sharp increases in prices and the worsening outlook for economic growth and unemployment will continue to weigh on debt affordability for households, businesses and governments globally. In the UK, household finances are being stretched by increased living costs, rising mortgage payments and fall in income. Increased operational pressure and insolvencies in the enterprises sector is not showing signs of reducing employment or investment. Major UK banks' capital and liquidity positions remain strong and pre-provision profitability has increased, but there is evidence that the major UK banks are tightening their lending standards. The levels of resilience across liability driven investment funds to rapid increase of treasury bond yields were insufficient.

Conducting stress tests. The Bank of England published the result of the annual cyclical scenario stress test participated by 8 large banks (including building societies) in July 2023. The scenario envisages that UK inflation peaks at 17 percent, interest rate rises, deep recession appears in the UK and global economies, unemployment rate rises significantly and the asset prices fall sharply. Under this scenario, 8 participating large banks have passed the test. In aggregate, banks' CET1 ratio falls from a start point of 14.2 percent to a low point of 10.8 percent, while the leverage ratio falls from a start point of 5.3 percent to a low point of 4.7 percent. Credit impairment is the most important reason for capital consumption, contributing to a reduction of the CET1 ratio by 4.1 percentage points.

Improving macroprudential management. As vulnerabilities that could exacerbate future economic shocks were accumulating, the FPC agreed to maintain the UK CCyB rate at 2 percent on 3 July 2023, to ensure that banks have sufficient capacity to absorb future shocks without restricting lending.

III. China's Practices

In 2022, the Chinese authorities continued to enhance financial stability policy coordination, strengthened systemic risk monitoring and assessment, introduced a set of macroprudential policy measures, and carried out the legislation of the financial stability law and the consolidated financial statistics.

Further enhancing financial policy coordination. Financial policy coordination mechanisms were set up to ensure policy coordination and synergy before a new policy measure was introduced. For example, a Financial Risk Mitigation Committee was established, members of which include provincial governor-level officials from 31 provinces as well as Shenzhen. 25 financial sector entities under inspection have mapped out risks comprehensively and formulated risk response plans. Reporting and information sharing mechanism for risky local financial institutions was established to facilitate risk analysis and communication. Regarding key sectors such as real estate, large enterprises and small- and medium-sized financial institutions, risk alert and prompts will be send to local governments and regulatory authorities promptly.

Strengthening the monitoring and assessment of systemic risks. The PBC continued to improve the financial stability monitoring and assessment framework, which covers the banking sector, securities sector, insurance sector and financial markets. The framework prioritizes monitoring of potential risks from the macro leverage, key sector leverages, real estate sector and cross border capital flows, and issues risk warnings as necessary. Central bank rating of financial institutions was steadily carried out on a quarterly basis, covering more than 4000 financial institutions. The rating results help inform a differentiated management framework, where level 1 to 7 raters would continue to be subject to the early warning exercises carried out by the authority on a quarterly basis, and level 8 to 10 raters would be asked to take effective and differentiated rectification measures, depending on whether they are newly designated or not, to lower their risk levels until they are removed from the list. Stress tests covering over 4000 banking financial institutions were conducted, so banks can take measure to address their vulnerabilities and gaps identified in the test for sound and prudent operation purpose. Stress tests on climate-related risks were conducted for domestic systemically important banks to raise their awareness and capacity for climate risk management. On-site inspections for the securities, insurance and trust companies were carried out by the authority to assess their business soundness. The PBC also explores to develop the risk surveillance and assessment framework for cross-sector financial activities, especially asset management products. In addition, the PBC monitors risks in the capital market and cross-market segments through tools such as the financial market stress index and stock pledging stress test.

Strengthening the regulation on financial holding companies (FHCs). Market entry management and ongoing supervision of FHCs is carried out, and FHCs are required to manage their shareholdings in financial entities in a centralized manner and separate their financial business with non-financial business lines to prevent risk contagion. In 2022, the PBC carried out market entry approvals and shareholder qualification reviews of FHCs. As of end 2022, the PBC has approved the establishment of three FHCs including China CITIC Financial Holdings Corporation, Beijing Financial Holdings Group and China Merchants Financial Holdings Corporation. The PBC also supervises FHCs on an on-going basis, reviews their shareholder qualifications and shareholding structures on a consolidated basis, and requires them to maintain adequate capital levels, improve corporate governance, strengthen risk management and operate in accordance with relative laws. In February 2023, the PBC released the *Regulation on Related Party Transactions of Financial Holding Companies*, as an effort to further improve the FHCs regulatory framework. The regulation, following the "substance-over-form" and look-through principle, sets out definition on related parties and their types of transactions, and rules on related party transactions. It aims to prevent against transfer of interests, risk contagion and regulatory arbitrage, and promote sound and orderly development of FHCs. In accordance with the *Plan for the Institutional Reform of the Party and State* in March 2023, the mandate for FHC regulation and supervision was transferred from the PBC to the NFRA.

Improving the regulation of SIFIs. In accordance with the *Assessment Methodology of Systemically Important Banks*, the PBC and the former CBIRC launched the second assessment on systemically important banks and released the list in September 2022. 6 state-owned commercial banks, 9 joint-stock commercial banks and 4 city commercial banks were designated. Based on the *Additional Regulatory Rules for Systemically Important Banks (Provisional)*, the PBC and the former CBIRC have a mandate in requiring systemically important banks to meet the additional capital and leverage ratio requirement in a timely manner, and in developing and reviewing recovery and resolution plans. In July 2022, the PBC and the CBIRC issued the *Assessment Methodology of Systemically Important Insurers* for public consultation, which covers the methodology, scope, process and thresholds for systemically important insurer assessment. In October 2023, the final version was released by the PBC and the NFRA.

Improving regulation on financial infrastructures. In December 2022, the PBC, together with relevant agencies, issued for public consultation the *Regulation and Supervision on Financial Infrastructures*. The consultation document aims at further strengthening the planning and oversight of financial infrastructures, clarifying the regulatory framework of financial infrastructures, improving market entry management, safeguarding the safe and efficient operation of financial system and beefing up financial support to the real economy.

Box 11 Formulation of the Measures for Supervision and Administration of Financial Infrastructures

Financial infrastructure plays a pivotal role in the financial market functioning, and it is the basic guarantee for the stable and efficient operation of financial market. After years of construction, China has gradually built a financial infrastructure system that supports trading activities in financial markets covering currency, securities, funds, futures and foreign exchange, which offers a relatively complete set of functions and is generally in stable operation. However, with the rapid development of the financial market, financial infrastructures are faced with challenges in terms of safety and efficiency, and more efforts should be made to strengthen the legal system, management coordination, planning and construction.

The Third Plenary Session of the 18th CPC Central Committee proposed to "strengthen the construction of financial infrastructures to ensure the safe and efficient operation and overall stability of the financial market", and the Fifth National Financial Work Conference clearly required that the coordinated supervision and construction planning of important financial infrastructures should be strengthened. In accordance with the decisions and arrangements of the CPC Central Committee and the State Council, the PBC, together with other relevant authorities, formulated and issued the *Work Plan for Coordinated Supervision of Financial Infrastructures* (hereinafter referred to as the *Plan*) in 2020, which clearly stipulated that regulatory standards should be unified, access management be improved, facility layout be optimized and governance structure be enhanced, so as to promote the formation of an advanced and reliable financial infrastructure system with reasonable layout, effective governance and enough flexibility.

According to the division of tasks put forward in the *Plan*, the PBC took the lead to draft the *Measures for Supervision and Administration of Financial Infrastructures (for consultation)* (hereinafter referred to as the *Measures*), which was released for public consultation in December 2022. The *Measures* contains six chapters and 46 articles, which clarifies the overall regulatory framework of financial infrastructures, specifies the arrangements for the access, supervision and administration of six types of financial infrastructures, and stipulates the legal responsibilities of relevant parties involved in financial infrastructures.

First, to clarify the definition and arrangement of financial infrastructures under coordinated supervision. Six categories of financial infrastructures and their operating institutions that are approved by the State Council or regulatory authorities are included in China's coordinated supervision framework, including financial asset registration and custody systems, clearing and settlement systems (including CCPs for centralized clearing business), trading facilities, trading repositories, important payment systems and basic credit information systems. The *Measures* aims to promote the formation of an orderly interconnected, moderately competitive and constantly improving layout of financial infrastructures. At the same time, the *Measures* also puts forward general provisions for strengthening coordinated supervision of financial infrastructures in areas such as enhancing the management of state-owned financial capitals and aligning with international rules and standards.

Second, to improve the market access arrangements of financial infrastructures. The *Measures* puts forward general criteria for setting up financial infrastructures in China, including organizational structure, capital requirements, qualifications of key management personnel ("shareholders, directors, supervisors and senior managers"), risk management and internal control system, and system construction. The *Measures* also clarifies the requirements for the administration of overseas financial infrastructures providing cross-border delivery services for domestic residents or institutions. The *Measures* specifies the division of responsibilities among financial authorities under the State Council regarding access administration of various types of financial infrastructures.

Third, to strengthen the requirements for financial infrastructure operation and risk management. The *Measures* specifies that financial infrastructure operating institutions should establish and improve a clear and transparent governance structure, an effective accountability mechanism and a sound risk management framework, and should set up a risk management committee. The document also requires financial infrastructures and their operating institutions to effectively manage legal, credit, liquidity, business and operational risks. The *Measures* sets out operating guidelines for financial infrastructure operating institutions in key position management, technical standards, information security, emergency response for system failure, and disaster backup; puts forward confidentiality requirements for business data, relevant materials and other data and information of participants to financial infrastructures that are generated in the service process; requires financial infrastructure operating institutions to reserve sufficient risk preparedness in the form of margins and general risk provisions; and requires financial infrastructure operating institutions to formulate and improve emergency response plans covering major epidemics, natural disasters, abnormal fluctuations in the financial market, cyber incidents and other extreme situations that may affect continuous operation.

Fourth, to clarify the rules for financial infrastructure supervision and administration. The *Measures* sets out requirements of supervision and administration by financial regulators under the State Council on financial infrastructures, including matters for filing, reporting, comprehensive statistics, inspection, evaluation, resolution and exit, and specifies the issues that overseas financial infrastructures need to report. The *Measures* puts forward criteria for identifying systemically important financial infrastructures, such as the number of participants, market share, business complexity, interconnectedness and substitutability. The PBC is responsible for the prudential regulation of systemically important financial infrastructures and their operating institutions in addition to the existing regulatory framework for such infrastructures and their operating institutions. For the regulation and supervision of non-systemically important financial infrastructures, the existing division of mandates remains unchanged.

Fifth, to clarify the legal responsibility of people and entities related to financial infrastructures. Under the current legal framework, the *Measures* sets penalties for institutions and relevant personnel involved in unlicensed operation, submission of false administrative license application materials, ineligibility of directors, supervisors and senior management, sabotage to the sound operation of financial infrastructures, and violation of requirements set out in the *Measures* such as registration, reporting, evaluation and inspection. At the same time, the *Measures* also emphasizes the accountability mechanism for regulators who engage in malpractices for personal gain, abuse of power and negligence of duty.

Facilitating the regulated development of asset management activities. In 2022, the new rules on asset management was formally implemented by all relevant entities. The PBC continued to improve information sharing and coordination with relevant authorities through the regulatory coordination mechanism on asset management activities, steadily pushed forward and perfected standard setting in the asset management sector and regulated financial institutions' asset management activities. In general, the asset management sector has been growing in a steady and healthy manner in 2022, with simple aggregate measure totaling more than RMB 90 trillion and the ratio of net value-based products at 88.2 percent. Key risk indicators such as average liability leverage ratio and liquidity indicator are improving; and the sector is more resilience overall. By the end of 2022, AMPs have directly allocated a total of RMB 35.9 trillion to the real economy through investment in non-financial enterprise bonds and stocks, showing high level of support to the real economy. In the context of bond market volatility in the fourth quarter of 2022, several AMPs saw their net value depreciate, leading to a wave of redemption demands coupled with bond market fluctuations. The PBC, together with regulatory authorities, guided financial institutions to take prompt and preemptive measures to prevent against large swings in the market and potential liquidity squeeze.

Optimize macroprudential management of housing finance. In 2022, the PBC continuously optimized the macroprudential management of housing finance. The concentration requirements for the property sector loans was carried out with appropriate intensity and pace based on market conditions, and transition arrangement was developed to support eligible banks to provide housing credit in a sound manner, and to better fulfill household needs for self-occupied housing credit. It was clarified that concentration requirements will not include government-subsidized rental housing programs, in order to ensure financial support towards affordable housing.

Enhancing the macroprudential policies on cross-border capital flows. Policy tools including foreign exchange risk reserves for forward foreign exchange sales and macroprudential management of overall cross-border financing were activated as needed to counter pro-cyclical behavior by market entities and to safeguard stability in the foreign exchange market and cross-border capital flow. On September 28, 2022, to stabilize expectation in the foreign exchange market and strengthen macroprudential management, the PBC raised the foreign exchange risk reserve ratio for forward foreign exchange sales from 0 to 20 percent. On October 25, to further improve the macroprudential management of overall cross-border financing, increase cross-border funding sources for enterprises and financial institutions, and guide them to optimize their assets and liabilities structure, the PBC and SAFE increased the macroprudential adjustment parameter for cross-border financing of enterprises and financial institutions from 1 to 1.25.

Steadily pushing forward the financial stability legislation. Since March 2021, the PBC has been actively pushing forward the financial stability legislation in close cooperation with relevant authorities. The legislation follows a scientific, democratic and law-based principle and fully adopts comments and suggestions from all stakeholders. In December 2022, the 38th session of the 13th National People's Congress Standing Committee reviewed the draft financial stability law for the first time and released it for public consultation. Consequently, the draft law was included in the legislation planning and the 2023 legislation work plan of the 14th National People's Congress Standing Committee. Meanwhile, the PBC is also pushing forward the revision of the PBC law, commercial bank law and insurance law to ensure they are consistent with and complementary to the financial stability law, and that together they form an organic piece of legislation that serves to anchor legal basis, stablize expectations and deliver long-term benefits.

Box 12 Governance Framework of the Financial Stability Guarantee Fund

In December 2021, the Central Economic Work Conference stipulated that "adequate resources should be made available to resolve risks". The *2022 Government Work Report* clearly called for the "establishment of the Financial Stability Guarantee Fund". The report to the 20th National Congress of the CPC again emphasized the "strengthening of the financial stability guarantee system". In accordance with the decisions and arrangements of the CPC Central Committee and the State Council, the PBC worked with relevant authorities to accelerate the establishment of the Financial Stability Guarantee Fund. Currently, the initial framework has been established, with certain accumulation of funds.

Governance arrangements. The Financial Stability Guarantee Fund aims to provide funds for dealing with major financial risks. It runs in parallel and operates in tandem with the Deposit Insurance Fund and relevant sector guarantee funds, and together they form an important part of China's financial safety net.

Funding sources. The Financial Stability Guarantee Fund is raised mainly from entities including financial institutions and financial market infrastructure operators. Funds are collected by existing management authorities of the Deposit Insurance Fund and of the sector-specific guarantee funds. The fund-raising takes into account asset size, business complexity, operation and management capacity, risk profile and other factors of relevant institutions to ensure their rights and interests are proportionate to their responsibilities.

Fund use. For resolution of daily risk events, the Financial Stability Guarantee Fund will not be used. After relevant stakeholders bear the losses, the Deposit Insurance Fund and relevant sector-specific guarantee funds will be used in accordance with laws and their mandates to resolve risks. For resolution of a major financial risk event, funding should come from financial institution itself and its shareholders and actual controllers, the Deposit Insurance Fund and relevant sector-specific guarantee funds in accordance with laws and their respective responsibilities. In case where financial stability is seriously endangered, the Financial Stability Guarantee Fund can be used, in accordance with relevant provisions, upon approval.

Going forward, the PBC will continue to work with relevant authorities to steadily enhance governance of the Financial Stability Guarantee Fund in terms of its fund-raising, accumulation and rule-making process, continue to improve the long-term mechanism for financial risk prevention and control, and effectively safeguard financial stability and security in China.

Further pushing forward the comprehensive financial statistics. The authority has carried out a stocktake on the current statistics implementation standards in the financial sector, to ensure coordinated and unified standards for various statistic requirements. Depository banking financial institutions were asked to conduct self-assessment on the implementation of the comprehensive statistics standards, to improve their implementation quality and capacity. The national financial data hub has been enhanced in terms of its data dimension, scope and quality; banking sector data in basic categories and covering all necessary activities have been collected and stored in the hub; and the hub also covers deposit and loan data of major enterprises nationwide, covering more than 600 dimensions. Statistical survey for monetary credit and social financing is continuously enhanced, specific statistical survey on green, inclusive and scientific innovation loan is improved, and survey for AMPs and systemically important banks is deepened. Statistical survey for bonds, FHCs and local financial organizations, and asset and liabilities statistical survey of insurance and securities sectors are effectively carried out, covering and monitoring major financial institutions and activities. The smart surveillance and warning system on corporate financing risks is introduced, which serves to provide enhanced monitoring on SME loans to high-tech enterprises and the so-called “specialized, refined, featured and innovative” enterprises, and key information support for more scientific and effective macro-adjustment policy-making.

Special Topic 1 Actively Push forward the Legislation of the Financial Stability Law

Safeguarding financial stability lays a solid basis for promoting the long-term security as well as the healthy and orderly economic development for a country. Prevention against systemic risks is the eternal theme for financial sector work. In order to strengthen the prevention and resolution regime of financial risks, clarify the mandates, responsibilities and obligations of relevant stakeholders, safeguard financial stability and security, promote the healthy economic and social development, the PBC actively worked with relevant authorities to push forward the legislation of the Financial Stability Law, with the aim to establish a long-term institutional mechanism for maintaining financial stability. Significant progress has been achieved at the current stage.

I. Legislation progress

After years of efforts in financial legislation, the multi-layered law system has been established, providing strong support for the sound operation of the financial sector. The system is led by the basic laws including Law on the PBC, Law on Commercial Banks, Securities Law , Insurace Law, Futures and Derivatives Law, supported by administrative regulations, rules and normative documents issued by various authorities, as well as supplemented by local rules. However, in the area of financial stability, there were gaps of laws and regulations, such as a lack of top-level design and coordination arrangements for cross-sector or inter-agency issues. Articles and sections related to financial stability are scattered in different laws, and are mostly general provisions, lacking operational details. Some important issues are not fully captured by existing laws and regulations.

Guided by the Xi Jinping's Thought on Socialism with Chinese Characteristics for the New Era and following the principles of "maintaining overall stability, proceeding in a coordinated manner, adopting differentiated policies, and addressing risks in a targeted and calibrated way" required by the CPC Central Committee and the State Council, the PBC has worked proactively with relevant authorities, to win the critical battle against major financial risks, establish various useful long-term working mechanisms to safeguard financial stability, effectively address the shocks from complex domestic and external uncertainties and COVID-19 pandemic, successfully safeguard the financial stability, safety and development, and provide a safe and beneficial environment for the healthy development of the financial sector. It's necessary to build on the above practices and experiences, to further improve the related legal framework through legislation, which can turn such effective resolution practices into the long-term institutional arrangements required by laws and regulations.

Since March 2021, the PBC has worked along with National Development and Reform

Commission, Ministry of Justice, Ministry of Finance, China Banking and Insurance Regulatory Commission, China Securities Regulatory Commission and State Administration of Foreign Exchange to accelerate the legislative process for the Financial Stability Law, adhering to the principles of professional, democratic and lawful legislation, fully accepting and incorporating the reasonable suggestions and advice. The 38th meeting of the Standing Committee of the Thirteenth National Congress reviewed the draft of the Financial Stability Law for the first time and sought public consultation in December, 2022. The Standing Committee of the Fourteenth National Congress put the legislation of the Financial Stability Law into the annual legislation plan of 2023.

II. Overall legislative framework

Guided and led by Xi Jinping's Thought on Socialism with Chinese Characteristics for the New Era, sticking to the problem-solving-oriented and systematic thinking philosophy, the draft of the Financial Stability Law intends to achieve the following goals. The law will address the issues emerged during the critical battle against major financial risks, cover the gaps in financial regulations, improve the process and chains in preventing and resolving financial risks, as well as to establish a more effective mechanism to early identify, correct and resolve financial risks. The law will strike a balance between development and safety, fostering a benign interaction between promoting the high-quality economic growth and preventing financial risks so as to better protect the ultimate interests of the public. The law will incorporate the market-based and law-based rules into the practices of maintaining financial stability, to address financial failures timely and efficiently, and to balance between stability concerns and moral hazards. The law will define the division of labor among different supervisory and regulatory authorities in a reasonable way, strengthen the cooperation and coordination among agencies and local government, and foster synergies in upholding financial stability. In line with the general provisions of civil and commercial laws, the draft law will adhere to its position as a law on a specific issue, adapting to the professional nature of financial activities to facilitate risk resolution.

III. Contents of the draft Financial Stability Law

The draft Financial Stability Law contains the requirements to establish the whole process of preventing and resolving systemic financial risks, including ex-ante prevention, in-process risk management and ex-post resolution, so that the long-term institutional framework in maintaining financial stability can be enhanced, the legal basis for financial development and security can be consolidated, the soundness of financial system can be improved, the capacity of the financial sector in serving real economy can be strengthened, and the capabilities to cope with major risks can be improved so as to support the healthy economic and financial development.

1. Strengthening the centralized and unified leadership of the CPC Central Committee on the financial work, improving the efficiency of cooperative working mechanism in maintaining financial stability

During the past several years, in the critical battle against major financial risks, under the strong leaderships of the CPC Central Committee and State Council, important progresses have been achieved by relevant authorities and local governments on winning the battle at the current stage, through efficient division of labor, close collaboration and cooperation, turning the institutional advantage of pooling all the resources to complete major missions into the enhancement of regulatory efficacy. It is therefore necessary to further strengthen the centralized and unified leadership of the CPC Central Committee on the work of finance by legislation, based on the current practice and the requirements of 2023 *Reform Plan of Party and State Institutions,* to optimize institutional arrangement and division of labor among various authorities. The duties of identifying, mitigating and resolving financial risks should be performed by financial supervisors, economic development and reform authorities, fiscal authorities, other relevant regulators as well as judicial authorities in line with each one's mandate. Provincial government should be responsible for maintaining social stability and addressing local risks according to law. Deposit insurance fund and other sector guarantee funds should fulfill their responsibility of risk monitoring and resolution. Relevant authorities and local governments should strengthen the cooperation and coordination to foster synergies in safeguarding financial stability .

2. Preventing financial risks from their sources

Regulatory endeavors should be strengthened in the area of market access, corporate governance and internal control system, and in the supervisory requirements for the conducts of major holders or controlling parties of financial institutions, to improve the overall resilience and competitiveness of financial institutions. Recovery and resolution planning requirements should be placed on eligible financial institutions to have an orderly plan to resume the continuous operation capacity or to facilitate the resolution process in case of failure. The PBC should play its role in the macroprudential policy framework to prevent against potential systemic financial risks. Microprudential financial regulators should enhance the risk monitoring and early warning mechanisms for the financial industries, financial institutions, financial products as well as financial markets they supervise, to ensure that all the financial activities will be supervised. Both legal and illegal financial activities need to be covered or well regulated. Financial supervisors should enhance data and information sharing with local governments, inform relevant authorities potential financial vulnerabilities, and crack down on illegal financial activities, to identify and send alert for financial risks in the early stage. Deposit insurance fund and other sector guarantee fund management authorities should also monitor the risks of relevant financial sectors, and inform supervisory agencies in a timely manner.

3. Clarifying the duties and responsibilities of all the stakeholders, resolving financial risks in a timely way

The shareholders and controlling parties of financial institutions should bear the primary responsibility for resolving risks emerged in their institutions, including taking necessary and proactive measures to adjust the balance-sheet structure, collect non-performing assets and replenish capital depending on the specific circumstances, especially when prudential supervisory indicators in capital adequacy and risk management fail to meet regulatory standards. The duties of financial supervisors will be further clarified, including strengthening the supervisory enforcement action and making use of appropriate supervisory tools and measures to resolve the risks in a timely and efficient manner. The duties of local governments will also be clarified, including taking measures to prevent against potential regional financial risks. The duties of deposit insurer should include taking prompt corrective actions and intervention measures to avoid risk accumulation.

4. Incorporating the market-based and law-based rules into the improvement of the resolution regime for financial institutions

According to the draft law, the funding pool for resolution should be built up by all responsible stakeholders to share the resolution cost and to reduce the reliance on public funds. In case of potential failure of any financial institution, the financial institution itself should take active bail-in measures to clean up claims and debts and reduce losses. Shareholders should absorb losses, with major shareholders and controlling party fulfilling the commitment they made in recovery and resolution plans or supervisory MOUs to replenish capitals. Shareholders and controlling parties liable for the failure of the financial institution should pay the compensation according to relevant laws. Financial institutions should introduce strategic investors, sell non-performing loans and replenish capitals in a market-oriented way. The deposit insurance fund and sector guarantee funds should participate in resolution activities in a market-oriented and law-based way. The responsibilities of resolving financial risks should be shared and carried out by financial supervisors, development and reform agencies, fiscal authorities, other relevant sectoral regulators as well as judicial authorities, in line with each agency’s duties. Local governments that are responsible for risk resolution should perform the duties of verifying and reappraising assets and liabilities of failed financial institutions, recovering non-performing assets, pooling resolution funding, holding relevant parties accountable, and safeguarding social security. When there is a serious threat to the financial stability, and risks can not be contained after all above market-oriented measures are taken and all stakeholders fulfill there duties, the Financial Stability Guarantee Fund may be utilized to resolve risks, following the principle of respecting market discipline and preventing moral hazards.

In the resolution process, the spirit of contract should be respected and honored to protect the lawful rights and interests of relevant parties, and to ensure that such process is in line with laws and regulations. New resolution tools will be introduced, such as the whole purchase & assumption, bridge bank, SPV, etc. to meet the practical needs of resolution. When the failed institution is required to write down its equity or debt or to convert its debt into equity, the hierarchy of write-down on equity and liabilities should be clarified for the purpose of resolution, so that the lawful rights and interests of relevant shareholders, creditors and other stakeholders will be protected. The law should also provide the procedures for the connection or transition between the resolution and the judicial process.

5. Financial Stability Guarantee Fund was built up to increase funding for resolution

The Financial Stability Guarantee Fund was established to enhance the capacity to cope with systemic financial risks. Following the principles of collecting funds from financial institutions and using funds for their risk resolution, the fund was composed of assessments on financial institutions and financial market infrastructure operating institutions, and other funding arrangements allowed by the State Council. The Financial Stability Guarantee Fund has worked in parallel with the Deposit Insurance Fund and other sectoral guarantee funds and formed synergy in risk resolution, contributing to the smooth operation of China's financial safety net. In the resolution of major financial risks, the use of the Financial Stability Guarantee Fund, together with the use of the Deposit Insurance Fund and other sectoral guarantee funds, will help to avoid negative shocks to economic, financial and social stability imposed by such significant risks.

6. Accountability system should be strengthened and more crack-down measures should be taken against violations and illegal activities

The draft Financial Stability Law emphasizes the punishment against both financial institutions' and relevant individuals' law-violation activities. For shareholders and controlling parties, any violation or illegal activity conducted during the formation or resolution of financial risks should be held accountable, and if violations of criminal law exist, relevant individuals should be subject to criminal prosecution. Authorities, local governments, agencies or individuals directly responsible for the breakout or spillover of financial risks should be called to account. For any dereliction of public servants, the criminal or administrative punishments will be imposed. For financial institutions that violate the prudential requirements of supervisors and breach their reporting obligations, or fail to or refuse to implement corrective orders, punishments will be imposed by relevant agencies. For any illegal activity of directors, supervisors and senior management that damage the interests of financial institutions, shareholders and creditors, punishments will be imposed by authorities, and any further criminal charges will be made if such activity is found to violate the criminal law.

IV. Going forward

As the next step, the PBC will facilitate the development of the Financial Stability Law, implementing the overall requirements of *the Reform Plan of the Party and State Institutions* and the Central Financial Work Conference, to push forward the enactment of the Law. In the meantime, authorities will continuously work on the revision of the Law on the PBC, Law on Commercial Banks, Insurance Law and other relevant laws, so that these laws, including the Financial Stability Law, will support and supplement each other with each focusing on different aspect. They will provide solid legal support for the sound operation of the financial system, encouraging better market expectation and achieving long-term progress in economic and financial development.

Special Topic 2　Interbank Business Management of Financial Institutions

Interbank business is an important way for financial institutions to manage their liquidity positions and to optimize their resource allocation. It also plays an important role in monetary policy transmission and market liquidity provision. In order to regulate financial institutions' interbank business, authorities over the world have developed relevant regulatory requirements, so that business can provide better funding support to the real economy.

I. Overview of Interbank Business of Financial Institutions

Interbank business was first introduced to meet financing and position adjustment needs among banks. Its scope then quickly expanded as the operation of the banking industry grew and interest rate liberalization and financial disintermediation accelerated. The international community now adopts the narrow definition of interbank business as interbank transactions, and the broad definition as wholesale funding not only among financial institutions, but between commercial banks and enterprises as well as the central bank.

II. International Regulatory Rules for Interbank Business

The international regulatory framework developed by standard-setters such as the FSB and BCBS includes specific requirements for interbank business.

First, interbank risks should be taken into account in the supervision of individual banks. The BCBS *Core Principles for Effective Banking Supervision* state that bank supervisors need to assess risks in a broader context than that of the balance sheet of individual banks, including the macroeconomic environment, the build-up and concentration of risk across the banking sector and outside of it. Bank-specific supervision should therefore consider the bank and its risk profile from a number of perspectives: on a solo basis, on a consolidated basis and on a group-wide basis. Data on individual bank and at sector level should be collected for financial stability assessment purpose.

Second, capital rules are required for interbank business. According to Basel III, when calculating risk-weighted assets of financial institution's interbank exposures, the credit risk weights should be applied based on their external rating, which is lower than those of non-financial enterprises. Specifically, under the Standardised Approach for credit risk, the risk weights of credit exposures to banks, securities firms and insurance companies should between 20 percent to 150 percent based on these financial institutions' external ratings. Among them, the risk exposures to financial institutions with external ratings of level 1 and level 2 should be given the risk weights of 20 percent and 50 percent respectively, lower than that of general enterprises (100 percent).

Third, liquidity regulatory requirements have been stipulated for interbank business. According to Basel III, when calculating the liquidity coverage ratio, interbank business is assumed to have slightly higher cash run-off and inflow factors. **In terms of cash outflows**, a 25 percent run-off factor is given to the amount of deposits in a cooperative bank within an institutional network①, while the run-off factor for deposits and claims in other banks, insurance companies and securities firms is 100 percent. For committed liquidity facilities and credit lines extended to other banks, banks should assume a 40 percent drawdown of the undrawn portion of these facilities. For committed credit facilities to securities firms and insurance companies, banks should assume a 40 percent drawdown of the undrawn portion. For committed liquidity facilities to securities firms and insurance companies, banks should assume a 100 percent drawdown. **In terms of cash inflows,** for amounts to be received from financial institutions, a 100 percent cash inflow factor should be applied.

Fourth, the regulatory requirements for concentration of interbank risks are included in the large risk exposure rules. According to Basel III, if a bank's risk exposure to a single counterparty or to a group of connected counterparties is equal to or above 10 percent of its Tier 1 capital, this exposure would be regarded as a large exposure, and apply the regulatory cap of 25 percent of Tier 1 capital. After factoring in risk mitigation, banks are required to report all large exposures and the top 20 exposures to the regulatory authorities. The large exposure limit applied to G-SIBs is more stringent, setting at 15 percent of Tier 1 capital.

Fifth, information disclosure requirements for interbank business have been stipulated. In its revision plan for pillar III, the BCBS requires banks to further increase information transparency by disclosing asset securitization risk exposures in trading accounts, off-balance sheet instruments, asset-backed liquidity facilities, re-securitization exposures, valuation of securitization exposures, and other information related to various channel institutions.

III. China's Regulatory Rules for Interbank Business

First, all interbank activities among banks are covered by regulatory rules. In 2014, the PBC, former CBRC, CSRC, former CIRC and SAFE jointly issued the *Notice on Regulating Interbank Business of Financial Institutions*. The *Notice* follows a "blocking the wrong path, opening the front door, strengthening risk management and promoting sound growth" principle, and aims to standardize interbank business operations, strengthen internal and external management of interbank business, and promote business innovations on the asset and liability side The *Notice* standardizes the definition for interbank

① An institutional network of cooperative banks is a group of legally autonomous banks with a statutory framework of cooperation with common strategic focus and brand where specific functions are performed by central institutions or specialised service providers.

financing and investment activities to bring them under proper regulation, which includes interbank lending, interbank deposit, interbank borrowing, interbank payment, and reverse repo (or repo). It sets limits on interbank liabilities as well as on interbank lending by a single financial institution. Specifically, the interbank borrowing of a commercial bank should not exceed a third of its total liabilities, and bank financing to a single financial institution, excluding settlement deposits and after deducting assets with the zero risk weight, should not exceed 50 percent of its Tier 1 capital. The *Notice* prohibits the reverse repo (or repo) of non-standard debt assets and the third-party guarantee for interbank business. It also provides for internal risk control requirements, liquidity management requirements, unified credit granting requirements, and capital and provision management requirements for interbank business.

Second, a special rectification on interbank business was carried out. In 2014, the former CBRC issued the *Notice on Regulating Commercial Banks' Governance of Interbank Business*, which sets the organizational structure for managing interbank business. Commercial banks are required to set up or designate a dedicated department to run interbank business. In 2017, the former CBRC launched a series of special regulatory inspections① in response to prominent problems and hidden risks in the development of interbank business, to address non-compliance regulatory arbitrage, and the circulation of funds within the financial system. The inspection campaigns targeted several areas: whether governance system for interbank business were sound or not; whether the interbank investment and the investment in non-standard assets by wealth management products were managed by the same standards of banks' own loan; whether there was any mutual guarantee, subsidy or acceptance between credit funds and interbank funds; whether there was regulatory arbitrage; and whether funds were circulated purely for arbitrage. The special inspections had a strong binding effect on interbank business irregularities, and promoted the risk prevention and de-leveraging of interbank business.

Third, the regulatory authorities continued to standardize the management of interbank business. In 2018, the former CBIRC issued the *Rules on Large Risk Exposures of Commercial Banks*, requiring commercial banks to strengthen their management of large exposures, prevent and control customer concentration risks, and maintain steady operation. According to the *Rules,* commercial banks' risk exposures to a single interbank client or group client shall not exceed 25 percent of its net Tier 1 capital; and the risk exposures of a G-SIB to another G-SIB should not exceed 15 percent of its net Tier 1 capital. The *Rules* raised the regulatory requirements for a single bank's risk exposures to a single interbank client, guiding banks to return to their original functions and focus on their main businesses, and reducing their reliance on

① Regulatory inspections according to regulations including the *Notice on the Special Rectification of Violations of Laws, Regulations and Rules in the Banking Sector*, the *Notice on the Special Rectification of Regulatory Arbitrage, Idle Circulation of Funds for Arbitrage, and Related Transactions for Arbitrage in the Banking Sector*, the *Notice on the Special Rectification of Improper Innovation, Transactions, Incentives and Charging in the Banking Sector*, and the *Guiding Opinions on Risk Prevention and Control in the Banking Sector*.

interbank business.

In 2023, the former CBIRC and the PBC jointly issued the *Rules on Risk Classification of Financial Assets of Commercial Banks*, extending the scope of assets subject to risk classification from bank loans to all credit risk-bearing assets, including interbank assets. For investment in asset management products or asset securitization products, the requirements penetrate to the underlying assets, or in case the underlying assets cannot be penetrated, the risk classification for this investment product should be determined in line with the asset with the worst risk classification among the penetrable underlying assets. With credit impairment as the core, the five-level risk classification of financial assets is clearly defined, and the risk classification results of debt assets are adjusted based on the credit status of the debtors. The identification of non-performing interbank assets will also be stricter.

Fourth, the regulatory authorities enhanced the requirements for capital calculation of interbank assets. In 2023, The NFRA and the PBC jointly released the *Capital Rules for Commercial Banks*, which raised the overall risk weighting requirements for interbank assets. For instance, the *Rules* increased the risk weights for commercial banks' interbank lending, investment in financial bonds and interbank certificates of deposits①, as well as for investment in subordinated debt②. For the capital calculation of asset management products, banks are required to measure the size of their exposures in asset management products by the look-through approach, the mandate-based approach or the 1250 percent-weight approach, based on the data availability of the underlying assets. For example, If the bank can penetrate to the underlying assets, the look-through approach shall apply; if cannot , but the proportion of investments in the underlying assets can be obtained through periodic reports and prospectuses, etc., then the mandate-based approach shall apply; and if the underlying asset information is not available, the 1250 percent risk weight will be applicable.

IV. Considerations for Next Steps

Going forward, the PBC, together with financial regulatory authorities, will continue with the regulation and supervision of interbank business of financial institutions, in adaption to domestic and foreign economic and financial context and financial market dynamics. On the one hand, measures will be taken to monitor non-compliant interbank activities under the banking sector monitoring and early warning system, and to inform rectification requirements for banks to prevent potential risks from materializing. On the other hand, efforts will be continued to track changes in the interbank market and interbank business, and to effectively prevent and control risks in accordance with the "substance-over-form" principle, so as to firmly uphold the bottom line of no outbreaks of systemic risks.

① For commercial banks rated as A+ and A, the risk weights of risk exposures within three months remain unchanged at 20 percent, and the risk weights of risk exposures over three months will be raised from 25 percent to 30 percent and 40 percent, respectively. The risk weight of B-grade commercial banks' risk exposures within three months is increased from 20 percent to 50 percent, and risk weight of their exposures over three months raised from 25 percent to 75 percent. And the risk weight of risk exposures of C-grade commercial banks is raised to 150 percent.

② The risk weight for commercial banks' exposures in subordinated debt (excluding China's development financial institution and policy banks) and external TLAC non-capital debt instruments (undeducted) issued by G-SIBs is 150 percent.

Special Topic 3 Findings of the Central Bank Rating of Financial Institutions

In the second quarter of 2023, the PBC conducted the Central Bank Rating of Financial Institutions (hereinafter referred to as the Central Bank Rating) on 4364 banking financial institutions, consisting of 3992 banks and 372 other banking institutions. The rating results show that banking institutions as a whole are stable and their risks are overall manageable.

Ⅰ. Results of the Second Quarter Central Bank Rating in 2023

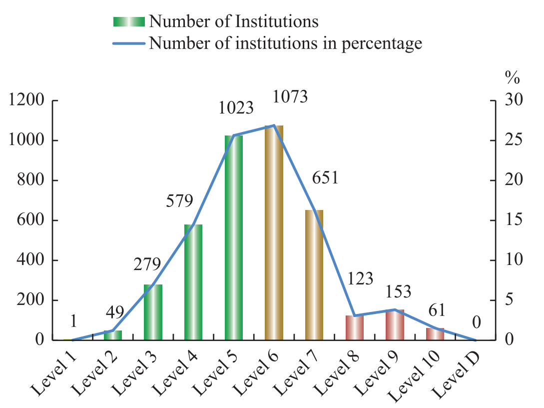
The Central Bank Rating covered 3992 banks, including 24 large banks and 3968 small- and medium-sized banks. Depending on their risk levels, banks are rated into 11 categories, i.e. level 1 to 10 and level D. Banks in level D are either bankrupt, in receivership or closed down. Level 1-5 is tagged as the “green zone” and level 6-7 “yellow zone”, both of which are safe zones for institutions. Level 8-D is the “red zone”, meaning institutions are in a high-risk status. Table 1 show a breakdown of the rating results.

Table 1 Results of the Second Quarter Rating in 2023

Institution Type	Number	Rating
Development and policy banks	3	Level 1-7
State-owned commercial banks	6	
Joint-stock commercial banks	12	
City commercial banks	125	Level 2-10
Rural commercial banks	1608	Level 2-10
Rural cooperative banks	23	Level 5-9
Rural credit cooperatives	509	Level 2-10
Village and township banks	1643	Level 3-10
Private banks and others	21	Level 2-7
Foreign banks	42	Level 2-6
Total	3992	-

A total of 3655 banks are rated level 1-7, and their combined assets account for 98.28 percent of the total assets of all participating banks. 1931 banks are in the “green zone”, with combined assets of RMB 350 trillion yuan, or 90.65 percent of the total assets; 1724 banks are in the “yellow zone”, with combined assets of RMB 29.47 trillion yuan, or 7.63 percent of the total assets; 337 banks are in the “red zone”, with combined assets of RMB 6.63 trillion yuan, or 1.72 percent of the total assets (Figure 1). The number of “red zone” banks is nearly halved from the 2019 peak. Based on the rating results, China’s banking institutions is sound as a whole and risks are overall manageable.

Figure 1 Distribution of the Second Quarter Rating Results of 2023



Source: The PBC.

By institution type, large banks receive better ratings and some rural small- and medium-sized institutions tend to be riskier. The 24 large banks, with 1 level-1, 13 level-2s, 6 level-3s, 2 level-4s, 1 level-5 and 1 level-7, have combined assets of 73.8 percent of the total assets of all participating banks, and are anchors of the financial system stability. Among the rest, foreign banks, private banks and direct banks are better rated than other small- and medium-sized banks, with 95 percent of foreign banks and 76 percent of private banks and direct banks rated in the “green zone” respectively, and no high-risk banks. City commercial banks follow in terms of ratings, with 67.2 percent rated in the “green zone” and 11.5 percent in the high-risk zone. Rural cooperative institutions (including rural commercial banks, rural cooperative banks, and rural credit cooperatives) and village and township banks are worst rated, with 191 and 132 in a high-risk status respectively and combined assets of 0.84 percent of that of all participating banks.

By geographical distribution, most provinces have managed to lower their banking risk levels and improve their regional financial environment. 10 provinces/autonomous regions/municipalities are clear of high-risk banks, including Fujian, Guizhou, Jiangsu, Jiangxi, Qinghai, Shandong, Tibet, Chongqing, Shanghai and Zhejiang. Another 15 provinces/autonomous regions/municipalities see their high-risk banks in single digit.

II. Application of the Central Bank Rating Results

Based on the rating results, the PBC has established a level- and zone-based regulatory framework to inform targeted risk prevention and mitigation measures. For institutions rated level 1—7, the PBC’s early warning system works to detect outlier indicators and emerging risky trends, and take actions such as issuing risk alerts and requiring conversation with the bank management to urge banks to bring their regulatory indicators back to normal levels. This early warning system is in line with the "early identification, early warning, early exposure and early resolution" principle, and aims to nip potential risks in the bud and prevent risks from materializing at an early stage. In addition, the PBC takes prompt corrective actions (PCAs) such as issuing "one-on-one" notice, requiring meetings with bank management, issuing risk alerts and rating comments to high-risk institutions rated level 8-D to urge them to repair their balance sheet and resolve potential risks in a responsible and proactive manner. In 2023, 8 provinces have been included to the PBC's PCA pilot program. In this program, authorities will carry out PCAs against newly-added high-risk banks and require them to redress their problems within a given time limit. This time limit is a rigid requirement and banks will face resolution if they fail to redress within the time limit.

The PBC also uses the rating results to inform its performance of mandated works to improve accuracy of policy making and implementation. Currently, the rating results are fully utilized in the following mandates: determination of the differentiated deposit insurance premiums, issuance of MSE loans, approval of financial institution bond issuance, carrying out the Macroprudential Assessment (MPA) and the bidding for treasury cash management. The rating results can be used as an input when evaluating the management performance and risk profiles of financial institutions, and play a role in effectively strengthening the macroprudential regulation and guiding institutions to operate in a prudent and sound manner.

The PBC shares the rating results with financial regulators and local governments to enrich the application scenarios. The PBC regularly informs local governments of the central bank rating results and high-risk bank information, so as to urge local governments to take proper measures to address high-risk institutions in a responsible manner. The PBC shares the rating results with regulatory authorities where needed, for the purpose of enhancing regulatory synergy and consolidation of resources, and improving regulatory effectiveness and coordination. For example, the PBC provides opinions, at the request of securities regulator, on bank IPOs and listing, as well as their private placement, etc.

Special Topic 4 The Banking Sector Stress Test

In 2023, the PBC continues to use the stress test as an important risk monitoring and assessment tool, and stress tested 3985 banking institutions across the country to assess their resilience against various "extreme but plausible" adverse shocks.

I. General Information

Sample Banks. The stress test covers 3985 banks, consisting of 6 large state-owned commercial banks, 12 joint-stock commercial banks, 125 city commercial banks, 1604 rural commercial banks, 513 rural credit cooperatives, 23 rural cooperative banks, 1640 village and township banks, 19 private banks, 42 foreign banks and 1 direct bank.

Methodology. The stress test contains 4 separate exercises, i.e. the solvency stress test based on macroeconomic scenarios, solvency stress test based on sensitivity analysis, liquidity stress test and risk contagion stress test. **The solvency stress test based on macroeconomic scenarios** targets the 19 D-SIBs on the 2022 list to see how their capital adequacy levels at the end of 2023, 2024 and 2025 would change under adverse macroeconomic shocks from the credit and market risk channels. Specifically, the PBC developed a transmission model on the linkages between the macro economy and bank credit asset quality based on the data of the 19 D-SIBs, and measured each bank's credit impairment losses, net interest income gains/losses, bond valuation gains/losses and FX exposure gains/losses under stress scenarios before assessing the capital adequacy impact. **The solvency stress test based on sensitivity analysis** assesses the instantaneous impact of a deterioration in the overall and key sector risk profiles on capital adequacy of all participating banks. **The liquidity stress test** assesses the impact of various liquidity stresses caused by policy changes, macroeconomic dynamics and emergency events on banks' cash flow gaps by maturity. **Risk contagion stress test** targets 60 large banks by asset size, and assesses contagion risk among banks and between banks and non-bank financial institutions.

Stress scenarios[①]. **The solvency stress test based on macroeconomic scenarios** features three scenarios—a mildly adverse scenario, an adverse scenario and a severely adverse scenario. The scenarios are calibrated with macroeconomic factors including y-o-y GDP growth (Table 1), CPI growth, short-term and long-term market interest rates, y-o-y growth of total retail sales of consumer goods, y-o-y growth of industrial value added, y-o-y growth of investment in fixed assets and RMB/USD exchange rate, etc. **The solvency stress test based on sensitivity analysis** uses a set of indicators including overall NPL ratio and

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

sector-specific NPL ratios, NPA ratio, loss given default, changes in the bond yield curve, etc. as stress indicators (Table 2). **The liquidity stress test** uses a mildly adverse scenario and a severely adverse scenario to set different roll-on rates of banks' in-balance-sheet assets and run-off rates of their in-balance-sheet liabilities or contingent liabilities in all maturities. Under each scenario, a maturity ladder analysis is adopted to calculate the net funding gaps for each single bank. **The risk contagion stress test** assesses the spillover effects of an individual bank when it defaults and withdraws its interbank lending to the rest of banks in three adverse scenarios (Table 3).

Underlying assumptions. The solvency stress test assumes static balance sheet, provision coverage ratio ⩾100 percent, income tax rate of 25 percent, dividend rate of 30 percent when a bank has net positive profits and adequate capital adequacy ratios after dividend payment, and no macro policy support, NPL resolution or external capital replenishment during the time horizon of the test. **The liquidity stress test** assumes the bank as a going-concern, i.e. its relationship with important clients remains undamaged and business operation undisrupted. **Risk contagion stress test** assumes that a bank defaults on its interbank counterparties and withdraws its interbank lending. The contagion effect carries on as another bank fails the test and withdraws its interbank lending due to the above withdrawal, until no more bank defaults happen. The above process is repeated for the remaining banks.

Pass-fail criteria. For the solvency test based on macroeconomic scenarios, a bank would fail the test if its post-shock CET1 ratio, Tier 1 ratio or total CAR falls below regulatory requirements (taking into consideration the 2.5 percent capital conservation buffer and additional capital requirement for D-SIBs[①]). For the solvency test based on sensitivity analysis, a bank would fail the test if its post-shock CAR falls below regulatory requirements. For the liquidity stress test, a bank with negative funding gaps (where cash outflows exceed inflows) should liquidate its eligible high-quality liquid assets or obtain liquidity assistance from the PBC using the eligible assets as a collateral to fill the gap. It would fail the test if funding gaps remain after it has exhausted all of its eligible high-quality liquid assets. For the risk contagion stress test, a bank would fail the test if its CET1 ratio falls below 5 percent after the shock.

Table 1 Y-O-Y GDP Growth Rates in the Solvency Stress Test Based on Macroeconomic Scenarios

Year	Mildly Adverse Scenario	Adverse Scenario	Severely Adverse Scenario
2023	3.50%	2.80%	1.10%
2024	3.20%	2.60%	2.90%
2025	3.70%	3.40%	3.20%

Note: Other macro indicators were calibrated by the macroeconometric model.

① Capital requirements for D-SIBs include additional capital requirement which need to be met with CET1 capital. For banks which are identified as both G-SIBs and D-SIBs, the amount of additional capital they have to hold should be the higher of either the G-SIB or D-SIB requirements.

Table 2 Scenarios for the Solvency Stress Test Based on Sensitivity Analysis

Risk Exposure	Stress Scenarios
Overall Credit Assets	• Shock 1: NPL ratio up by 100percent① • Shock 2: NPL ratio up by 200 percent • Shock 3: NPL ratio up by 400 percent • Shock 4: 50 percent of special-mention loans converted to NPLs • Shock 5: 100 percent of special-mention loans converted to NPLs
Real Estate Financing	• Shock 1: NPL ratio of real estate development loans② up by 5 percentage points, and NPL ratio of housing purchase and other loans③ up by 3 percentage points④. NPL ratio of real estate standard assets up by 3 percentage points and NPL ratio of real estate non-standard assets up by 5 percentage points • Shock 2: NPL ratio of real estate development loans up by 10 percentage points, and NPL ratio of housing purchase and other loans up by 6 percentage points. NPL ratio of real estate standard assets up by 6 percentage points, and NPL ratio of real estate non-standard assets up by 10 percentage points • Shock 3: NPL ratio of real estate development loans up by 15 percentage points, and NPL ratio of housing purchase and other loans up by 9 percentage points. NPL ratio of real estate standard assets up by 9 percentage points, and NPL ratio of real estate non-standard assets up by 15 percentage points
MSMEs⑤/ individual Business Loans	• Shock 1: NPL ratio of loans to MSMEs and individual businesses up by 200 percent • Shock 2: NPL ratio of loans to MSMEs and individual businesses up by 400 percent • Shock 3: NPL ratio of loans to MSMEs and individual businesses up by 600 percent
Local Government Financing Vehicles⑥	• Shock 1: NPA ratio up by 5 percentage points • Shock 2: NPA ratio up by 10 percentage points • Shock 3: NPA ratio up by 15 percentage points
Concentration Risk	• Shock 1: The largest non-financial group client defaults, with a loss given default rate of 60 percent • Shock 2: The largest three non-financial group clients default, with a loss given default rate of 60 percent • Shock 3: The largest five non-financial group clients default, with a loss given default rate of 60 percent
Financial Counterparty Default	• Shock 1: The largest financial counterparty defaults, with a loss given default rate of 60 percent • Shock 2: The largest three financial counterparties default, with a loss given default rate of 60 percent • Shock 3: The largest five financial counterparties default, with a loss given default rate of 60 percent
Investment Losses	• Shock 1: 250 bps parallel upward shift in the yield curves of Treasury bonds, local government bonds, central bank bills and policy financial bonds • Shock 2: 400 bps parallel upward shift in the yield curves of non-policy financial bonds and interbank negotiable certificates • Shock 3: 400 bps parallel upward shift in the non-financial corporate bond yield curve • Shock 4: 10 percent losses on the notional amount of investment in SPVs • Shock 5: The above four shocks occur simultaneously

(Cont)

Risk Exposure	Stress Scenarios
Bond Default	• Shock 1: The bond with the largest book value defaults • Shock 2: Top 3 bonds with the largest book value default • Shock 3: Top 5 bonds with the largest book value default • Shock 4: Top 10 bonds with the largest book value default
Credit Risk of Off-Balance Sheet Activities⑦	• Shock 1: Sponsored off-balance sheet exposures account for 30 percent, with an expected loss given default rate of 90 percent • Shock 2: Sponsored off-balance sheet exposures account for 40 percent, with an expected loss given default rate of 90 percent • Shock 3: Sponsored off-balance sheet exposures account for 50 percent, with an expected loss given default rate of 90 percent

Note: ① If the baseline NPL ratio is x%, then the NPL ratio with an n% increase would be x%(1+n%).
② Real estate development loans include land development loans and housing development loans.
③ Housing purchase and other loans include commercial housing purchase loans, individual housing purchase loans for residential purposes, operating loans for property management, operating loans for real estate leasing, real estate M&A loans, loans for real estate intermediate services, etc.
④ If the baseline NPL ratio is x%, then the NPL ratio with an n percentage points increase would be (x+n）%.
⑤ The definition of MSMEs is based on the provisions in the *Notice on Issuing the Provisions on the Classification Standards for Small and Medium-sized Enterprises* published by the Ministry of Industry and Information Technology in 2011.
⑥ Risk exposures to local government financing vehicles include loans to local government financing vehicles, investment in fixed-income financing instruments issued by local government financing vehicles and other financing support from on-balance sheet credit funds to local government financing vehicles.
⑦ Off-balance sheet credit risk exposures include loan facilities equivalent to loans and transaction-related contingent exposures, such as banker's acceptance, financing guarantee and non-financing guarantee.

Table 3　Scenarios for the Risk Contagion Stress Test

Scenario 1	Potential spillovers are assessed under the assumption that tested banks default (defined as the withdrawal of its interbank lending, the same below) separately.
Scenario 2	It is assumed that non-bank banking institutions first default, then a tested bank withdraw part of its investment and relevant losses are directly deducted from its CET1 capital. Then potential spillovers are assessed when other tested banks default separately.
Scenario 3	It is assumed that the securities and insurance firms first default, then a tested bank withdraw part of its investment and relevant losses are directly deducted from its CET1 capital. Then potential spillovers are assessed when other tested banks default separately.

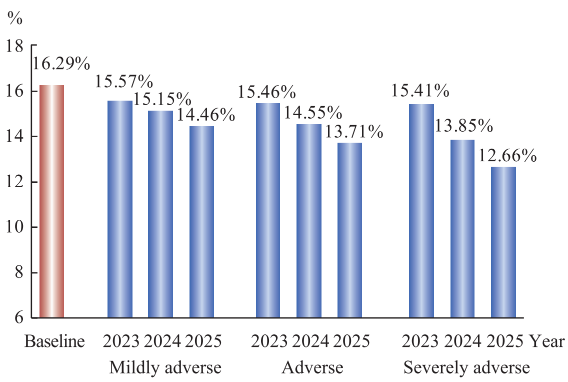
II. Results of the Solvency Stress Test

As of end-2022, the 3985 tested banks as a whole have an outstanding loan size of RMB 186.78 trillion yuan, NPL ratio of 1.71 percent, and CAR of 15.07 percent. For the 19 D-SIBs and 3966 non-D-SIBs, their total outstanding loans are RMB 133.26 trillion yuan and RMB 53.52 trillion yuan respectively, NPL ratios are 1.30 percent and 2.74 percent respectively, and CARs are 16.29 percent and 12.42 percent respectively.

1. Solvency Stress Test Based on Macroeconomic Scenarios

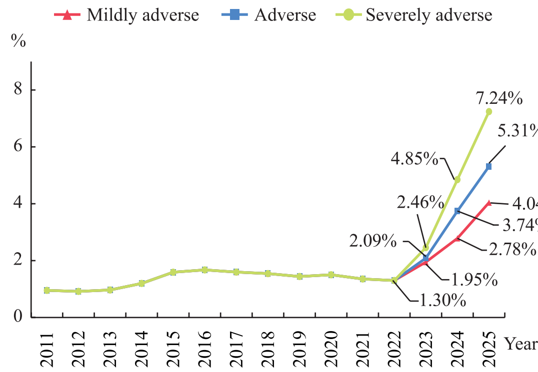
The 19 D-SIBs are overall resilient to shocks. According to the results, the 19 D-SIBs are in a strong position in terms of capital adequacy levels and performance soundness. As of end-2022, the aggregate CAR of the 19 D-SIBs is 16.29 percent. By end-2025, their aggregate CAR would fall to 14.46 percent under the mildly adverse scenario, to 13.71 percent under the adverse scenario and to 12.66 percent under the severely adverse scenario, showing that the 19 D-SIBs have strong resilience to macroeconomic shocks as a whole (Figure 1).

Figure 1 Overall CAR Results of the Solvency Stress Test Based on Macroeconomic Scenarios



Credit risk is the main cause for capital level falls of the 19 D-SIBs. Under the mildly adverse, adverse and severely adverse scenarios, the tested banks would see their loan quality deteriorate and NPL ratio increase significantly. As of end-2022, the aggregate NPL ratio of 19 D-SIBs is 1.30 percent. Without NPL disposal, their NPL ratio would increase to 1.95 percent, 2.78 percent and 4.04 percent at the end of 2023, 2024 and 2025 respectively under the mildly adverse scenario; to 2.09 percent, 3.74 percent and 5.31 percent under the adverse scenario; and to 2.46 percent, 4.85 percent and 7.24 percent for the next three years respectively under the severely adverse scenario (Figure 2). Their capital adequacy level will be significantly affected as they set aside more loan loss provisioning, down by an accumulative 1.83 percentage points, 2.58 percentage points and 3.63 percentage points in the next three years under the mildly adverse, adverse and severely adverse scenarios respectively.

Figure 2 Results of the Solvency Stress Test Based on Macroeconomic Scenarios

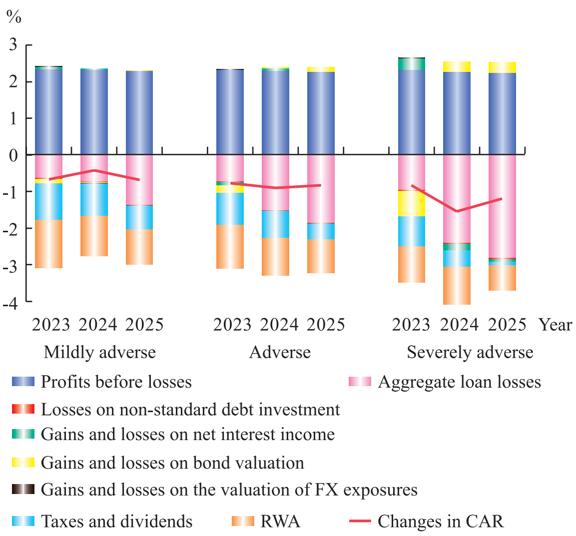


Market risk has limited impact on capital adequacy of the 19 D-SIBs. Under the severely adverse scenario, their aggregate CAR would increase by 0.07 percentage point cumulatively in the next three years due to changes in net interest margin, as deposit rates increase by 6 bps and interest rates on other interest-bearing liabilities and interest-earning assets by 21 bps cumulatively in a rising short-term market rate environment; and their aggregate CAR would fall by 0.16 percentage point due to fair value declines of their bond holdings, as impacted by interest rate changes and widening credit spread. Changes in FX rates have little influence on the CAR of tested banks (Figure 3).

Adequate provisioning and stable profitability could effectively alleviate the downside pressure on capital adequacy. The aggregate provision coverage ratio of the 19 D-SIBs is 241 percent at the end of 2022, far above the minimum regulatory requirement. Their average

ROA stands at 0.82 percent, higher than that of the banking sector. Under the severely adverse scenario, 1.19 percentage points of CAR declines in the three-year horizon would be depletion of excess provisions, and profits before losses could boost CAR by 6.83 percentage points cumulatively.

Figure 3 Contribution to Changes in the CAR



2. Solvency Stress Test Based on Sensitivity Analysis

The 19 D-SIBs are more resilient to credit quality deterioration, and the rest of banks as a whole can withstand the two shocks. In response to overall credit portfolio shocks, the 19 D-SIBs are able to remain an aggregate CAR above 12 percent under all scenarios, showing strong resilience to credit risk. For the 3966 non-D- SIBs, their aggregate CAR would drop to 10.99 percent, 9.30 percent and 5.95 percent respectively if their NPL ratio rises by 100 percent, 200 percent and 400 percent. In that case, 1347, 2020 and 2605 banks would fail the test, accounting for 28.34 percent, 51.29 percent and 65.85 percent of the total assets of all non-D-SIBs respectively. Their CAR would drop to 11.35 percent and 10.01 percent if their NPL ratio rises to 4.66 percent and 6.57 percent respectively, as a result of 50 percent and 100 percent of the special-mention loans deteriorating to NPLs. In that case, 1179 and 1651 banks would fail the test, accounting for 24.96 percent and 42.44 percent of the total assets of all non-D-SIBs (Figure 4, 5, 6).

Figure 4 Solvency Stress Test on the Risk of Overall Credit Assets Based on Sensitivity Analysis NPL ratio up by 100 percent, 200 percent and 400 percent. 50 percent and 100 percent of special-mention loans deteriorating to NPLs

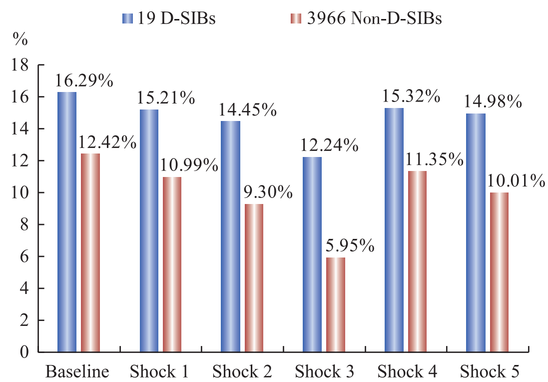


Figure 5 Number of Failing Banks among the 19 D-SIBs

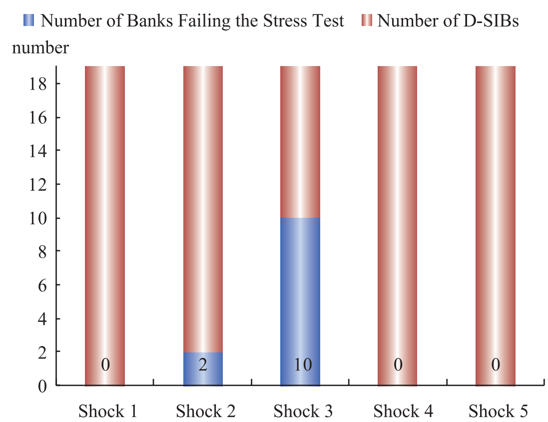
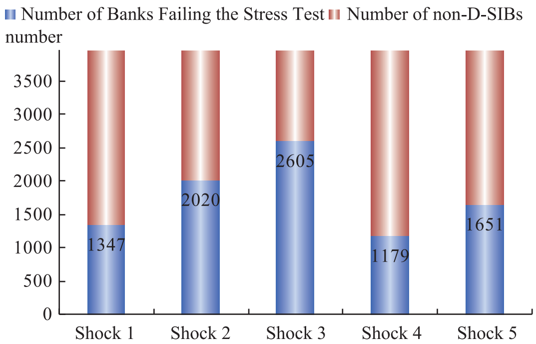


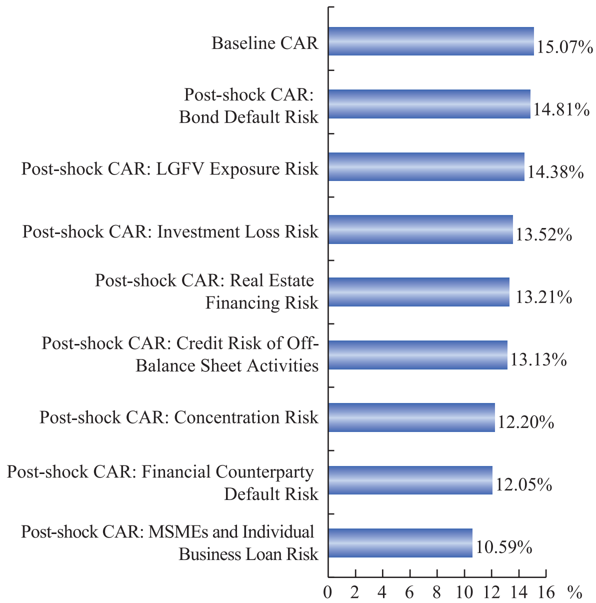
Figure 6 Number of Failing Banks among the 3966 Non-D-SIBs



Potential risks in the following sectors, i.e. MSME and individual business loans, financial counterparties, client concentration and off-balance-sheet activities, merits proper attention. If the NPL ratios of MSME and individual business loans rise by 600 percent, the aggregate CAR of all tested banks would fall by 4.48 percentage points to 10.59 percent. If the largest five financial counterparties and the largest five non-financial group clients default with a loss given default rate of 60 percent, the aggregate CAR would fall by 3.02 percentage points to 12.05 percent and by 2.87 percentage points to 12.20 percent respectively. If 50 percent of off-balance sheet exposures is sponsored with an expected loss given default rate of 90 percent, the aggregate CAR of tested banks would fall by 1.93 percentage points to 13.13 percent (Figure 7).

The impact of LGFV exposure and LGFV-related bond default risks on tested banks is small. If the NPA ratio of LGFV financing rises to 15 percent, the aggregate CAR would fall by 0.69 percentage point to 14.38 percent. If the top 10 bonds with the largest book value default, the aggregate CAR of all tested banks would fall by 0.26 percentage point to 14.81 percent.

Figure 7 Results of the Solvency Stress Test Based on Sensitivity Analysis in Key Areas (the most severe shocks)



III. Results of the Liquidity Stress Test

Tested banks are overall resilient against liquidity shocks. The liquidity stress test assesses the impact of stress events on banks' balance sheet cash flow gaps within a 7-day, 30-day and 90- day period respectively. The test results show that tested banks as a whole has adequate liquidity, as 96.16 percent and 93.05 percent of the 3985 tested banks passed the test under the mildly adverse and severely adverse scenarios, similar to the results of last year. It should be noted that this year's test takes in consideration the SVB event and sets more strict parameters in the severe scenario, and the result with a pass rate of mere 0.04 percentage point decrease than last year is a testimony of the overall strength of tested banks.

IV. Results of the Risk Contagion Stress Test

Tested banks have the ability to withstand single bank default, and the default of other banking institutions would not significantly increase the interbank risk contagion. In case of credit defaults among tested banks, none of the 60 tested banks would fail the test and the banking sector shows great resilient. In case that other banking institutions default first and result in tested banks' default due to losses from their interbank investments, one bank would fail the test and cause another two counterparties' default. The intensity of interbank risk contagion would not increase significantly.

The default of the securities and insurance financial institutions would, in a certain degree, increase the interbank risk contagion. In case that the securities and insurance financial institutions default first and result in tested banks' default due to losses on their interbank investments, 4 tested banks would fail the test and cause their counterparties' default. The contagion effect can continue for a maximum of 2 rounds.

Appendix

Statistics

Table 1 Selected Economic Indicators

Items	2018	2019	2020	2021	2022
Gross Domestic Product (RMB 100 million)	919281.1	986515.2	1013567.0	1149237.0	1210207.2
Value-added of Industry (RMB 100 million)	301089.3	311858.7	312902.9	374545.6	401644.3
Total Investment in Fixed Assets in the Whole Country (RMB 100 million)	456980.99	480393.46	493208.09	517133.32	542365.74
Retail Sales of Consumer Goods (RMB 100 million)	377783.1	408017.2	391980.6	440823.2	439732.5
Exports & Imports (RMB 100 million)	305010.1	315627.3	322215.2	387414.6	418011.6
Exports	164128.8	172373.6	179278.8	214255.2	237411.5
Imports	140881.3	143253.7	142936.4	173159.4	180600.1
Balance	23247.5	29119.9	36342.4	41095.9	56811.5
Value of Foreign Direct Investment Actually Utilized (USD 100 million)	1349.7	1381.4	1443.7	1734.8	1891.3
Foreign Exchange Reserves (USD 100 million)	30727.12	31079.24	32165.22	32501.66	31276.91
Consumer Price Index (previous year=100)	102.1	102.9	102.5	100.9	102.0
Per Capita Urban Household Disposable Income (RMB)	39251	42359	43834	47412	49283
Per Capita Rural Household Disposable Income (RMB)	14617	16021	17131	18931	20133
Urban Employed Persons (million)	442.92	452.49	462.71	467.73	459.31
Surveyed Urban Unemployment Rate (%)	4.9	5.2	5.2	5.1	5.5
Total Population (million)	1405.41	1410.08	1412.12	1412.60	1411.75

Note: ① 2018-2021 GDP is verified and final, and 2022 GDP is preliminary.

② In accordance with China's regulations on GDP data revision and international practices, systematic revisions are made on the GDP figures for 2018 and previous years with data from the fourth national economic census.

③ The Registered Urban Unemployment Rate ceased to be published, and here is replaced by the Surveyed Urban Unemployment Rate.

Source: The NBS.

Table 2 Selected Financial Indicators (1)

(Year-end Balance)

(RMB 100 million)

Items	2021	2022
Money & Quasi-Money (M_2)	2382899.6	2664320.8
Money (M_1)	647443.4	671674.8
Currency in Circulation (M_0)	90825.2	104706.0
Total Deposits with Financial Institutions	2322500.4	2584998.2
Household Deposits	903315.0	1074032.2
Non-financial Enterprise Deposits	696695.0	746574.1
Total Lending by Financial Institutions	1926902.8	2139852.7

Source: The PBC.

Table 3 Selected Financial Indicators(2)

(Growth Rates)

(percent)

Items	2021	2022
Money & Quasi-Money (M_2)	9.0	11.8
Money (M_1)	3.5	3.7
Currency in Circulation (M_0)	7.7	15.3
Total Deposits with Financial Institutions	9.3	11.3
Household Deposits	11.7	18.9
Non-financial Enterprise Deposits	5.5	7.2
Total Lending by Financial Institutions	11.6	11.1

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

Table 4 International Liquidity

(USD million)

Items	2018	2019	2020	2021	2022
Total Reserves (minus gold)	30918.8	31274.9	32387.8	33139.2	31896.9
Special Drawing Rights (SDRs)	106.9	111.3	115.0	530.7	511.6
IMF Reserve Position	84.8	84.4	107.7	106.9	108.4
Foreign Exchange	30727.1	31079.2	32165.2	32501.7	31276.9
Gold (10 thousand ounces)	5956	6264	6264	6264	6464
Gold (national valuation)	763.3	954.1	1182.5	1131.3	1172.4
Foreign Liabilities of Other Depository Corporations	3044.3	2410.5	2550.1	2352.0	2088.8

Source: The PBC.

Table 5 Gold and Foreign Exchange Reserves

Year	Gold Reserves (10 thousand ounces)	Foreign Exchange Reserves (USD 100 million)	Change in Foreign Exchange Reserves (percent)
2002	1929	2864.1	35.0
2003	1929	4032.5	40.8
2004	1929	6099.3	51.3
2005	1929	8188.7	34.3
2006	1929	10663.4	30.2
2007	1929	15282.5	43.3
2008	1929	19460.3	27.3
2009	3389	23991.5	23.3
2010	3389	28473.4	18.7
2011	3389	31811.5	10.7
2012	3389	33115.9	4.1
2013	3389	38213.2	15.4
2014	3389	38430.2	0.6
2015	5666	33303.6	−13.3
2016	5924	30105.2	−9.6
2017	5924	31399.5	4.3
2018	5956	30727.1	−2.1
2019	6264	31079.2	1.1
2020	6264	32165.2	3.5
2021	6264	32501.7	1.0
2022	6264	31276.9	−3.8

Source: The PBC.

Table 6 Assets of China's Financial Sector

(December 31, 2022)

(RMB trillion)

Type of Financial Institutions	Assets
Financial Sector	461.33
Central Bank	41.68
Banking Financial Institutions	379.39
Securities Financial Institutions	13.11
Insurance Financial Institutions	27.15

Note: ① Banking institutions refer to legal entities (also covering overseas branches), excluding the central bank. Securities institutions include securities companies, futures companies and fund companies. The total assets of securities companies and futures companies include both their own assets and clients' assets. Insurance institutions include property insurance companies, personal insurance companies, reinsurance companies, insurance group companies and insurance asset management companies.

② Because some insurance companies are in the process of risk resolution, the sector asset does not include assets of these institutions.

Source: The PBC, CBIRC and CSRC.

Table 7 Depository Corporations Survey in 2022

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Net Foreign Assets	287886.58	290159.17	288207.90	289129.69
Domestic Credits	2783504.23	2858346.34	2915491.46	2949485.75
Claims on Government (net)	402072.54	426827.64	435024.92	449860.53
Claims on Non-financial Sectors	2122343.35	2171091.39	2220783.93	2243282.35
Claims on Other Financial Sectors	259088.34	260427.32	259682.61	256342.88
Money & Quasi-Money	2497688.34	2581451.20	2626600.92	2664320.84
Money	645063.80	674374.81	664535.17	671674.76
Currency in Circulation	95141.92	96011.17	98672.06	104706.03
Corporate Demand Deposits	549921.88	578363.63	565863.11	566968.73
Quasi-Money	1852624.54	1907076.40	1962065.75	1992646.08
Corporate Time Deposits	440627.48	457183.96	477617.65	462001.61
Personal Deposits	1110996.78	1136280.29	1165283.43	1211692.83
Other Deposits	301000.29	313612.15	319164.67	318951.64
Deposits Excluded from Broad Money	62340.73	62021.21	58979.61	56100.68
Bonds	361133.36	368803.04	377861.11	382522.43
Paid-in Capital	82353.71	83540.71	84260.66	84735.79
Other Items (net)	67874.67	52689.35	55997.06	50935.70

Source: The PBC.

Table 8 Balance Sheet of Monetary Authority in 2022

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	226202.31	225365.84	224439.67	226906.56
Foreign Exchange	213494.82	213187.48	213127.04	214712.28
Monetary Gold	2855.63	2855.63	2855.63	3106.57
Other Foreign Assets	9851.87	9322.73	8457.00	9087.71
Claims on Government	15240.68	15240.68	15240.68	15240.68
Of Which: Central Government	15240.68	15240.68	15240.68	15240.68
Claims on Other Depository Corporations	129348.52	126805.26	128810.82	143132.29
Claims on Other Financial Corporations	4118.03	1743.96	1754.61	1557.00
Claims on Non-financial Sector	0.00	0.00	0.00	0.00
Other Assets	23816.35	23398.86	27156.48	29947.25
Total Assets	**398725.89**	**392554.60**	**397402.27**	**416783.78**
Reserve Money	335458.34	334251.89	341831.63	360956.03
Currency Issue	100737.77	101228.76	104051.11	110012.57
Deposits of Financial Corporations	215231.70	212469.45	216253.70	227876.54
Deposits of Other Depository Corporations	215231.70	212469.45	216253.70	227876.54
Deposits of Other Financial Corporations	0.00	0.00	0.00	0.00
Deposits of Non-financial Corporations	19488.86	20553.68	21526.82	23066.92
Deposits of Financial Corporations Excluded from Reserve Money	7090.10	6441.40	5315.85	5208.41
Bond Issue	950.00	950.00	950.00	950.00
Foreign Liabilities	1188.03	1312.63	1465.69	1574.47
Deposits of Government	42002.79	45748.00	43738.05	41272.91
Own Capital	219.75	219.75	219.75	219.75
Other Liabilities	11816.88	3630.93	3881.28	6602.21
Total Liabilities	**398725.89**	**392554.60**	**397402.27**	**416783.78**

Source: The PBC.

Table 9 Balance Sheet of Other Depository Corporations in 2022

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	75976.64	79493.28	80498.55	78344.95
Reserve Assets	226193.23	222108.91	225100.61	236791.01
Deposits with Central Bank	220597.37	216891.32	219721.56	231484.47
Cash in Vault	5595.86	5217.59	5379.05	5306.54
Claims on Government	428834.64	457334.95	463522.29	475892.76
Of Which: Central Government	428834.64	457334.95	463522.29	475892.76
Claims on Central Bank	25.51	94.93	157.69	133.01
Claims on Other Depository Corporations	320805.46	332538.43	333636.57	350308.20
Claims on Other Financial Corporations	254970.31	258683.36	257928.00	254785.88
Claims on Non-financial Corporations	1406256.22	1445570.97	1482874.54	1501256.91
Claims on Other Resident Sectors	716087.13	725520.42	737909.38	742025.44
Other Assets	131367.28	133306.30	135828.74	126755.81
Total Assets	**3560516.44**	**3654651.53**	**3717456.37**	**3766293.96**
Liabilities to Non-financial Institutions and Households	2215577.25	2282192.37	2319146.56	2340881.21
Deposits Included in Broad Money	2101546.13	2171827.88	2208764.19	2240663.17
Corporate Demand Deposits	549921.88	578363.63	565863.11	566968.73
Corporate Time Deposits	440627.48	457183.96	477617.65	462001.61
Personal Deposits	1110996.78	1136280.29	1165283.43	1211692.83
Deposits Excluded from Broad Money	62340.73	62021.21	58979.61	56100.68
Transferable Deposits	26320.16	25905.72	22645.79	23349.27
Other Deposits	36020.56	36115.49	36333.82	32751.41
Other Liabilities	51690.39	48343.28	51402.76	44117.36
Liabilities to Central Bank	121211.34	117755.17	120054.51	134995.69
Liabilities to Other Depository Corporations	112057.26	120314.60	119575.39	122637.02
Liabilities to Other Financial Corporations	260309.47	266918.09	269450.87	274424.00
Of Which: Deposits Included in Broad Money	256853.80	263581.33	266134.51	270433.18
Foreign Liabilities	13104.33	13387.31	15264.62	14547.35
Bond Issue	361133.36	368803.04	377861.11	382522.43
Paid-in Capital	82133.96	83320.96	84040.90	84516.04
Other Liabilities	394989.47	401959.99	412062.40	411770.23
Total Liabilities	**3560516.44**	**3654651.53**	**3717456.37**	**3766293.96**

Source: The PBC.

Table 10 Balance Sheet of Chinese-funded Large Banks in 2022

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	39254.73	41384.38	41692.01	40564.99
Reserve Assets	116847.32	113572.55	117562.92	120858.13
Deposits with Central Bank	114164.71	111030.86	115037.84	118318.40
Cash in Vault	2682.61	2541.69	2525.08	2539.73
Claims on Government	250405.48	267637.38	267487.30	272865.95
Of Which: Central Government	250405.48	267637.38	267487.30	272865.95
Claims on Central Bank	6.06	58.97	78.08	72.01
Claims on Other Depository Corporations	106299.43	113496.57	118385.28	121434.39
Claims on Other Financial Corporations	63433.18	65647.53	67127.41	65104.64
Claims on Non-financial Corporations	671888.33	693459.08	716900.71	726698.14
Claims on Other Resident Sectors	350928.08	354558.25	358966.46	359976.86
Other Assets	57870.96	58847.19	57980.33	52033.07
Total Assets	**1656933.57**	**1708661.91**	**1746180.49**	**1759608.19**
Liabilities to Non-financial Institutions and Households	1091073.74	1114419.54	1137645.34	1138268.57
Deposits Included in Broad Money	1014587.40	1041336.77	1065573.35	1071964.43
Corporate Demand Deposits	258062.91	269374.50	267545.21	264619.13
Corporate Time Deposits	163713.56	169891.36	178911.71	169729.57
Personal Deposits	592810.92	602070.90	619116.43	637615.72
Deposits Excluded from Broad Money	31481.79	31750.64	31653.44	30654.92
Transferable Deposits	12834.50	12130.93	11176.92	11471.17
Other Deposits	18647.29	19619.71	20476.52	19183.75
Other Liabilities	45004.55	41332.14	40418.55	35649.22
Liabilities to Central Bank	53555.97	54352.53	54874.57	64236.59
Liabilities to Other Depository Corporations	27707.94	31551.07	29961.29	33765.04
Liabilities to Other Financial Corporations	100089.97	112751.95	117371.57	115942.89
Of Which: Deposits Included in Broad Money	98801.63	111279.81	116045.14	114482.60
Foreign Liabilities	5155.01	5411.26	6972.90	5491.65
Bond Issue	157565.71	163440.59	168994.14	170028.87
Paid-in Capital	33254.15	33901.67	34122.88	34122.88
Other Liabilities	188531.08	192833.30	196237.80	197751.70
Total Liabilities	**1656933.57**	**1708661.91**	**1746180.49**	**1759608.19**

Source: The PBC.

Table 11 Balance Sheet of Chinese-funded Medium-Sized Banks in 2022

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	29162.23	30106.50	30502.03	29902.28
Reserve Assets	36784.38	36761.42	35723.06	38405.30
Deposits with Central Bank	36326.91	36296.62	35261.70	37902.45
Cash in Vault	457.48	464.79	461.36	502.85
Claims on Government	82906.77	86420.44	88755.74	91843.04
Of Which: Central Government	82906.77	86420.44	88755.74	91843.04
Claims on Central Bank	11.29	23.27	25.43	6.62
Claims on Other Depository Corporations	44391.32	42258.32	43579.35	49829.77
Claims on Other Financial Corporations	95727.44	95916.58	92535.91	94529.57
Claims on Non-financial Corporations	340615.73	348050.22	356650.56	360432.89
Claims on Other Resident Sectors	167636.57	170100.41	172918.84	173928.65
Other Assets	24134.52	24354.21	24315.39	22282.68
Total Assets	**821370.25**	**833991.37**	**845006.32**	**861160.81**
Liabilities to Non-financial Institutions and Households	383042.13	399751.37	404891.57	408133.87
Deposits Included in Broad Money	360906.06	378017.19	382496.89	389387.23
Corporate Demand Deposits	130934.86	136309.35	133996.02	130751.54
Corporate Time Deposits	132048.25	138887.03	143203.82	139736.73
Personal Deposits	97922.94	102820.82	105297.04	118898.96
Deposits Excluded from Broad Money	18936.89	18285.96	16616.93	14562.58
Transferable Deposits	7776.58	7725.23	6436.00	6261.88
Other Deposits	11160.30	10560.73	10180.93	8300.69
Other Liabilities	3199.18	3448.22	5777.74	4184.06
Liabilities to Central Bank	33451.20	30024.81	32124.01	36448.44
Liabilities to Other Depository Corporations	31789.92	34871.99	34376.66	34842.14
Liabilities to Other Financial Corporations	103395.83	97776.83	95279.70	99574.45
Of Which: Deposits Included in Broad Money	102617.08	96975.16	94670.70	98961.31
Foreign Liabilities	3761.64	3650.27	4258.84	4296.65
Bond Issue	162419.54	163424.21	167429.36	171990.68
Paid-in Capital	14493.45	14546.55	14663.76	14668.33
Other Liabilities	89016.54	89945.33	91982.43	91206.23
Total Liabilities	**821370.25**	**833991.37**	**845006.32**	**861160.81**

Source: The PBC.

Table 12 Balance Sheet of Chinese-funded Small Banks in 2022

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	3714.76	4219.52	4379.97	4289.46
Reserve Assets	59972.66	59489.64	59099.13	64421.91
Deposits with Central Bank	57796.10	57516.70	56972.07	62374.32
Cash in Vault	2176.56	1972.94	2127.06	2047.58
Claims on Government	87413.44	94513.28	98059.67	101430.16
Of Which: Central Government	87413.44	94513.28	98059.67	101430.16
Claims on Central Bank	7.17	11.69	54.18	54.38
Claims on Other Depository Corporations	120586.03	121568.72	120552.68	121272.63
Claims on Other Financial Corporations	83830.94	85010.54	85077.78	83352.46
Claims on Non-financial Corporations	329872.47	340446.02	344192.39	349077.95
Claims on Other Resident Sectors	180319.55	183570.97	188646.12	191194.60
Other Assets	32025.70	32236.73	34086.46	33596.48
Total Assets	**897742.71**	**921067.12**	**934148.37**	**948690.03**
Liabilities to Non-financial Institutions and Households	618899.28	638071.72	647436.01	658509.24
Deposits Included in Broad Money	610259.06	629593.89	639159.52	651021.02
Corporate Demand Deposits	121583.17	126709.98	123160.09	121026.82
Corporate Time Deposits	104987.31	108672.80	112730.98	112415.46
Personal Deposits	383688.57	394211.10	403268.44	417578.74
Deposits Excluded from Broad Money	6655.01	6456.41	5601.62	4881.10
Transferable Deposits	2337.97	2415.76	1942.77	2056.74
Other Deposits	4317.04	4040.65	3658.85	2824.37
Other Liabilities	1985.22	2021.42	2674.87	2607.12
Liabilities to Central Bank	32110.40	31829.26	31074.24	32724.77
Liabilities to Other Depository Corporations	40686.77	42504.19	43805.82	43488.66
Liabilities to Other Financial Corporations	53852.20	53509.18	53780.05	56089.47
Of Which: Deposits Included in Broad Money	52823.90	52722.38	52635.34	54409.44
Foreign Liabilities	647.55	747.15	750.89	881.78
Bond Issue	40039.98	40896.76	40376.50	39478.76
Paid-in Capital	23926.11	24431.33	24744.73	24968.98
Other Liabilities	87580.42	89077.54	92180.13	92548.36
Total Liabilities	**897742.71**	**921067.12**	**934148.37**	**948690.03**

Source: The PBC.

Table 13　Balance Sheet of Foreign-funded Banks in 2022

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	3649.29	3598.53	3672.69	3297.31
Reserve Assets	2337.66	2248.30	2388.02	2800.29
Deposits with Central Bank	2335.11	2245.67	2385.58	2797.74
Cash in Vault	2.55	2.63	2.44	2.55
Claims on Government	4601.28	4861.35	4924.62	5107.28
Of Which: Central Government	4601.28	4861.35	4924.62	5107.28
Claims on Central Bank	1.00	1.00	0.00	0.00
Claims on Other Depository Corporations	3872.68	3422.86	3721.63	4178.78
Claims on Other Financial Corporations	4675.66	4618.05	4557.78	4857.21
Claims on Non-financial Corporations	13977.27	13648.10	14571.81	13444.47
Claims on Other Resident Sectors	2195.39	2210.79	2243.67	2186.17
Other Assets	12533.25	13414.40	14116.73	13494.15
Total Assets	**47843.49**	**48023.38**	**50196.95**	**49365.67**
Liabilities to Non-financial Institutions and Households	20157.83	20259.26	21545.66	21553.76
Deposits Included in Broad Money	14822.77	14830.12	15189.73	16014.23
Corporate Demand Deposits	4680.24	4950.46	4600.45	5635.95
Corporate Time Deposits	8759.75	8473.18	9126.75	8799.30
Personal Deposits	1382.77	1406.48	1462.53	1578.98
Deposits Excluded from Broad Money	3929.28	3976.11	3915.60	4000.95
Transferable Deposits	2395.00	2474.30	2351.16	2381.09
Other Deposits	1534.28	1501.81	1564.43	1619.86
Other Liabilities	1405.78	1453.02	2440.34	1538.58
Liabilities to Central Bank	663.96	81.24	552.31	215.07
Liabilities to Other Depository Corporations	2782.65	2542.29	2131.31	2189.58
Liabilities to Other Financial Corporations	2605.19	2519.48	2686.66	2469.03
Of Which: Deposits Included in Broad Money	2395.16	2334.86	2531.30	2300.62
Foreign Liabilities	3539.43	3577.82	3279.45	3876.54
Bond Issue	1105.09	1035.10	1061.12	1020.02
Paid-in Capital	2038.88	2041.28	2055.08	2053.78
Other Liabilities	14950.46	15966.92	16885.36	15987.89
Total Liabilities	**47843.49**	**48023.38**	**50196.95**	**49365.67**

Source: The PBC.

Table 14 Balance Sheet of Rural Credit Cooperatives in 2022

(Quarter-end Balance)

(RMB 100 million)

Items	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Foreign Assets	3.75	2.77	0.85	0.80
Reserve Assets	7132.49	6697.08	6981.29	6840.19
Deposits with Central Bank	6855.93	6461.57	6718.20	6626.37
Cash in Vault	276.55	235.52	263.09	213.81
Claims on Government	3192.11	3439.54	3762.14	4031.33
Of Which: Central Government	3192.11	3439.54	3762.14	4031.33
Claims on Central Bank	0.00	0.00	0.00	0.00
Claims on Other Depository Corporations	18297.24	18015.69	17225.86	16065.64
Claims on Other Financial Corporations	1177.27	1147.38	1978.75	1340.04
Claims on Non-financial Corporations	12430.91	12553.96	12591.06	12708.71
Claims on Other Resident Sectors	13602.05	13757.31	13822.39	13451.37
Other Assets	3830.68	3851.61	4745.66	4752.55
Total Assets	**59666.48**	**59465.34**	**61107.99**	**59190.62**
Liabilities to Non-financial Institutions and Households	41158.55	41715.49	42062.73	41489.89
Deposits Included in Broad Money	41076.89	41643.01	41991.12	41371.88
Corporate Demand Deposits	4631.25	4612.16	4594.92	4155.61
Corporate Time Deposits	1258.40	1263.44	1259.53	1197.51
Personal Deposits	35187.25	35767.41	36136.67	36018.75
Deposits Excluded from Broad Money	0.42	0.38	0.37	0.64
Transferable Deposits	0.41	0.37	0.36	0.63
Other Deposits	0.01	0.01	0.01	0.01
Other Liabilities	81.23	72.10	71.24	117.37
Liabilities to Central Bank	958.11	1004.60	1026.74	1024.04
Liabilities to Other Depository Corporations	8296.82	8030.81	8827.51	7907.60
Liabilities to Other Financial Corporations	121.62	119.47	117.80	109.33
Of Which: Deposits Included in Broad Money	75.42	99.53	104.14	99.13
Foreign Liabilities	0.70	0.81	0.76	0.72
Bond Issue	3.04	6.38	0.00	4.10
Paid-in Capital	1389.11	1339.82	1323.34	1320.59
Other Liabilities	7738.53	7247.95	7749.12	7334.36
Total Liabilities	**59666.48**	**59465.34**	**61107.99**	**59190.62**

Source: The PBC.

Table 15 Statistics of Securities Market

Year	2016	2017	2018	2019	2020	2021	2022
Number of Listed Companies in Shanghai Stock Exchange and Shenzhen Stock Exchange (A shares, B shares)	3052	3485	3584	3777	4154	4615	4917
Number of Listed Foreign Investment Shares in Shanghai Stock Exchange and Shenzhen Stock Exchange (B shares)	100	100	99	97	93	90	86
Number of Listed Companies in Beijing Stock Exchange	–	–	–	–	–	82	162
Number of Overseas Listed Companies (H shares)	241	253	268	284	291	296	316
Total Issued Shares in Shanghai Stock Exchange and Shenzhen Stock Exchange (100 million shares)	48750	53747	57581	61720	65479	70694	73312
Of Which: Negotiable Shares (100 million shares)	41136	45045	49048	52488	56354	60755	64245
Total Issued Shares in Beijing Stock Exchange (100 million shares)	–	–	–	–	–	123	214
Of Which: Negotiable Shares (100 million shares)	–	–	–	–	–	57	111
Total Market Capitalization of Shares in Shanghai Stock Exchange and Shenzhen Stock Exchange (RMB 100 million)	507686	567086	434924	592935	797238	916088	788006
Of Which: Negotiable Shares (RMB 100 million)	393402	449298	353794	483461	643605	751556	663429
Total Market Capitalization of Shares in Beijing Stock Exchange (RMB 100 million)	–	–	–	–	–	2723	2110
Of Which: Negotiable Shares (RMB 100 million)	–	–	–	–	–	1074	1148
Trading Volume of Shares in Shanghai Stock Exchange and Shenzhen Stock Exchange (100 million shares)	95525	87781	82037	126624	167452	187426	185725
Trading Volume of Shares in Beijing Stock Exchange (100 million shares)	–	–	–	–	–	37	154
Turnover of Shares in Shanghai Stock Exchange and Shenzhen Stock Exchange (RMB 100 million)	1277680	1124625	901739	1274159	2068253	2579734	2245095
Turnover of Shares in Beijing Stock Exchange (RMB 100 million)	–	–	–	–	–	667	1980
Shanghai Composite Index (close)	3103.64	3307.17	2493.90	3050.12	3473.07	3639.78	3089.26
Shenzhen Composite Index (close)	1969.11	1899.34	1267.87	1722.95	2329.37	2530.14	1975.61
Number of Investor Accounts (10 thousand)	11811.04	13398.29	14650.44	15975.24	17777.49	19740.85	21213.62
Average P/E Ratio							
Shanghai	15.9	16.3	12.5	14.6	16.8	18.0	12.8

(Cont)

Year	2016	2017	2018	2019	2020	2021	2022
Shenzhen	41.2	36.2	20.0	26.2	34.5	33.0	23.4
Beijing	–	–	–	–	–	46.7	18.9
Average Turnover Rate (%)							
Shanghai	158.4	180.5	150.9	157.6	258.5	280.7	239.8
Shenzhen	541.8	412.9	356.9	456.2	555.9	506.1	499.5
Beijing	–	–	–	–	–	206.5	173.0
Government Bond Issuance (RMB 100 million)	91086.1	83513.0	78278.0	85187.0	135292.8	142661.6	170719.0
Corporate Credit Bond Issuance (RMB 100 million)	82377.0	56352.0	77905.0	107058.0	142012.0	146804.5	136720.0
Turnover of Outright Government Bond Purchase in the Interbank Market (RMB 100 million)	126130.0	131269.4	190695.2	347883.3	467068.5	406092.1	545771.5
Turnover of Government Bond Repo in the Interbank Market (RMB 100 million)	1757356.0	1913542.5	2144205.9	2694737.2	3031177.5	3339337.7	4031832.8
Number of Securities Investment Funds	3873	4848	5580	6111	7237	9152	10576.00
Total Net Asset Value of Securities Investment Funds (RMB 100 million)	91595	115989	130339	147673	198519	255638	260311
Turnover of Securities Investment Funds Listed on Exchanges (RMB 100 million)	111444	98052	102705	91679	136239	183234	231615
Trading Volume of Futures (10 thousand lots)	413777	307102	301056	392136	602691	726881	634228
Turnover of Futures (RMB 100 million)	1956316	1878926	2107974	2905739	4372771	5806874	5342903

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

Table 16 Ratio of Stock Market Capitalization to GDP

(RMB 100 million, %)

Year	GDP	Market Capitalization	Ratio of Market Captialization to GDP (percent)	GDP	Negotiable Market Capitalization	Ratio of Negotiable Market Captialization to GDP (percent)
2002	120480	38339	31.82	120480	12487	10.36
2003	136576	42478	31.10	136576	13185	9.65
2004	161415	37081	22.97	161415	11701	7.25
2005	185999	32446	17.44	185999	10638	5.72
2006	219029	89441	40.84	219029	25021	11.42
2007	270704	327291	120.90	270704	93141	34.41
2008	321230	121541	37.84	321230	45303	14.10
2009	347935	244104	70.16	347935	151342	43.50
2010	410354	265423	64.68	410354	193110	47.06
2011	483393	214758	44.43	483393	164921	34.12
2012	537329	230358	42.87	537329	181658	33.81
2013	588141	239077	40.65	588141	199580	33.93
2014	644380	372547	57.81	644380	315624	48.98
2015	685571	531463	77.52	685571	417915	60.96
2016	742694	507686	68.36	742694	393402	52.97
2017	830946	567086	68.25	830946	449298	54.07
2018	915244	434924	47.52	915244	353794	38.66
2019	983751	592935	60.27	983751	483461	49.14
2020	1005451	797238	79.29	1005451	643605	64.01
2021	1141231	916088	80.27	1141231	751556	65.85
2022	1197250	790116	66.00	1197250	664577	56.00

Note: Since 2021, market capitalization and negotiable market capitalization include that of Shanghai Stock Exchange, Shenzhen Stock Exchange and Beijing Stock Exchange.
Source: The NBS, the CSRC.

Table 17 Ratio of Domestic Stock Financing to Total Lending Increment

(RMB 100 million, %)

Year	Domestic Stock Financing	Total Lending Increment	Ratio (percent)
2002	720.05	18475.01	3.90
2003	665.51	27651.67	2.41
2004	650.53	22648.06	2.87
2005	339.03	23543.82	1.44
2006	2374.50	31809.19	7.46
2007	7814.74	36322.51	21.51
2008	3312.39	49041.23	6.75
2009	4834.34	95941.63	5.04
2010	9799.80	79450.29	12.33
2011	7154.43	74715.39	9.58
2012	4542.40	82037.63	5.54
2013	4131.46	88916.22	4.65
2014	8498.26	97815.77	8.69
2015	16361.62	117238.60	13.96
2016	20297.39	126496.23	16.05
2017	15534.98	135277.81	11.48
2018	11377.88	161704.90	7.04
2019	12538.82	168144.09	7.46
2020	14221.58	196340.43	7.24
2021	15422.00	199489.96	7.73
2022	14341.99	213097.18	6.73

Notes: ① Since 2015, the item “Total Lending” includes loans offered by banking financial institutions to non-bank financial institutions.

② The amount of domestic stock financing does not include the amount of convertible bonds that have been converted into stocks.

③ Since 2021, domestic stock financing includes that of Shanghai Stock Exchange, Shenzhen Stock Exchange and Beijing Stock Exchange.

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

Table 18 Statistics of Stock Market

Year	2015	2016	2017	2018	2019	2020	2021	2022
Number of Listed Companies in Shanghai Stock Exchange and Shenzhen Stock Exchange (A shares, B shares)	2827	3052	3485	3584	3777	4154	4615	4917
Of Which: ST Companies	51	62	64	57	137	218	179	109
SME Board	776	822	903	922	943	994	–	–
ChiNext	492	570	710	739	791	892	1090	1232
STAR	–	–	–	–	70	215	377	501
Number of Listed Foreign Investment Shares in Shanghai Stock Exchange and Shenzhen Stock Exchange (B shares)	101	100	100	99	97	93	90	86
Of Which: ST Companies	0	4	4	1	4	4	4	0
Number of Listed Companies in Beijing Stock Exchange	–	–	–	–	–	–	82	162
Total Issued Shares in Shanghai Stock Exchange and Shenzhen Stock Exchange (100 million shares)	43024	48750	53747	57581	61720	65479	70694	73312.06
Of Which: SME Board	4854	6424	7612	8360	9322	9924	–	–
ChiNext	1840	2631	3258	3728	4097	4510	5165	5685
STAR	–	–	–	–	–	–	1212	1742
Total Issued Shares in Beijing Stock Exchange (100 million shares)	–	–	–	–	–	–	123	214
Total Market Capitalization of Shares in Shanghai Stock Exchange and Shenzhen Stock Exchange (RMB 100 million)	531463	507686	567086	434924	593075	796487	916088	788006
Of Which: SME Board	103950	98114	103992	70122	98681	135378	–	–
ChiNext	55916	52255	51289	40460	61348	109339	140240	112721
STAR	–	–	–	–	8638	33491	56306	58151
Total Market Capitalization of Shares in Beijing Stock Exchange (RMB 100 million)	–	–	–	–	–	–	2723	2110
Market Capitalization of Negotiable Shares in Shanghai Stock Exchange and Shenzhen Stock Exchange (RMB 100 million)	417881	393402	449298	353794	483327	643096	751556	663429
Of Which: SME Board	69737	64089	71155	50479	73661	106105	–	–
ChiNext	32079	30537	30495	24543	40232	69630	98118	79367
STAR	–	–	–	–	1288	10002	22591	27583

(Cont)

Year		2015	2016	2017	2018	2019	2020	2021	2022
Market Capitalization of Negotiable Shares in Beijing Stock Exchange (RMB 100 million)		–	–	–	–	–	–	1074	1148
Volume in Shanghai Stock Exchange and Shenzhen Stock Exchange (100 million shares)	Total	171039	95525	87781	82037	126624	167452	187426	185725
	Daily Average	697	391	360	338	519	689	756	767
	SME Board	25410	20578	17409	18286	31971	42244	–	–
	ChiNext	9939	9510	8830	11642	19009	30219	29060	26371
	STAR	–	–	–	–	305	1203	1951	2581
Turnover in Shanghai Stock Exchange and Shenzhen Stock Exchange (RMB 100 million)	Total	2550541	1277680	1124625	901739	1274159	2068253	2579734	2245095
	Daily Average	10408	5236	4609	3711	5222	8511	10616	9277
	SME Board	497556	344165	259880	203626	310657	501796	–	–
	ChiNext	285353	216832	165522	158862	231604	466723	543303	450781
	STAR	–	–	–	–	13314	66230	105422	119869
Average Turnover Rate (%)	Shanghai	489.6	158.4	180.5	150.9	157.6	258.5	280.7	239.8
	Shenzhen	825.7	541.8	412.9	356.9	456	555.9	506.1	499.5
	Beijing	–	–	–	–	–	–	62.55	172.95
Average P/E Ratio	Shanghai	17.6	15.9	16.3	12.5	14.5	16.8	18.0	12.8
	Shenzhen	52.8	41.2	36.2	20.0	26.2	34.5	33.0	23.4
	Beijing	–	–	–	–	–	–	46.7	18.9
	SME Board	68.1	50.4	45.6	21.0	28.5	35.8	–	–
	ChiNext	109.0	73.2	51.4	32.8	47.0	64.9	60.0	37.9
	STAR	–	–	–	–	77.1	91.1	75.6	44.2
Shanghai Composite Index	Open	3258.63	3536.59	3105.31	3314.03	2497.88	3066.34	3474.68	3649.15
	Highest	5178.19	3538.69	3450.49	3587.03	3288.45	3474.92	3731.69	3651.89
	Date	2015/6/12	2016/1/4	2017/11/14	2018/1/29	2019/4/8	2020/12/31	2021/2/18	2022/1/4
	Lowest	2850.71	2638.30	3016.53	2449.20	2440.91	2646.80	3312.72	2863.65
	Date	2015/8/26	2016/1/27	2017/5/11	2018/10/19	2019/1/4	2020/3/19	2021/7/28	2022/4/27
	Close	3539.18	3103.64	3307.17	2493.90	3050.12	3473.07	3639.78	3089.26
Shenzhen Composite Index	Open	1419.44	2304.48	1972.55	1903.49	1270.5	1734.63	2335.16	2541.46
	Highest	3156.96	2304.49	2054.02	1966.15	1799.1	2340.89	2571.27	2542.99
	Date	2015/6/12	2016/1/4	2017/3/17	2018/1/25	2019/4/8	2020/11/9	2021/12/13	2022/1/4
	Lowest	1408.99	1618.12	1753.53	1212.23	1231.83	1552.96	2130.09	1724.92
	Date	2015/1/5	2016/1/27	2017/6/2	2018/10/19	2019/1/4	2020/2/4	2021/3/9	2022/4/27
	Close	2308.91	1969.11	1899.34	1267.87	1722.95	2329.37	2530.14	1975.61

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

Table 19 Summary of China's Bond Issuance

(RMB 100 million)

Year	Government Bonds			Financial Bonds			Corporate Credit Bonds		
	Issuance	Redemption	Outstanding	Issuance	Redemption	Outstanding	Issuance	Redemption	Outstanding
2002	5934	2216	19336				325		
2003	6280	2756	22604				358		
2004	6924	3750	25778				327		
2005	7042	4046	28774				2047	37	
2006	8883	6209	31449				3938	1672	
2007	23139	5847	48741				5181	2881	7683
2008	8558	7531	49768				8723	3278	13251
2009	17927	9745	57950				16599	4309	25541
2010	19778	10043	67685				16094	5099	36318
2011	17100	10959	75832	23491	7683	75748	23548	10326	49095
2012	16154	9464	82522	26202	8588	93362	37365	8750	77710
2013	20230	8996	95471	26310	13306	105772	36784	18673	93242
2014	21747	10365	107275	36552	19345	125489	51516	27388	116214
2015	59408	12803	154524	102095	53852	184596	67205	39757	144329
2016	91086	19709	225734	182152	125677	236499	82242	61139	175180
2017	83513	27567	281538	258056	216410	278301	56352	52378	183252
2018	78278	29875	330069	274056	229047	322585	77905	51561	205603
2019	85187	37175	377273	259360	217335	364622	107058	74064	246176
2020	135293	51408	460911	291539	239860	415080	142012	95558	289472
2021	142662	71258	532744	323516	257093	482241	146804	115152	314477
2022	170719	98976	604602	306195	271922	515874	136720	120363	323177

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

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

Source:The PBC.

Table 20 Statistics of China's Insurance Sector

(RMB 100 million, %)

Items	2014	Growth (y-o-y) (percent)	2015	Growth (y-o-y) (percent)	2016	Growth (y-o-y) (percent)	2017	Growth (y-o-y) (percent)	2018	Growth (y-o-y) (percent)	2019	Growth (y-o-y) (percent)	2020	Growth (y-o-y) (percent)	2021	Growth (y-o-y) (percent)	2022	Growth (y-o-y) (percent)
Premium Income	20234.81	17.49	24282.52	20.00	30959.10	27.50	36581.01	18.16	38016.62	3.92	42644.75	12.17	45257.33	6.13	44900.17	−0.79	46957.18	4.58
1.Property Insurance	7203.38	15.95	7994.97	10.99	8724.50	9.12	9834.66	12.72	10770.08	9.51	11649.47	8.17	11928.58	2.40	11671.11	−2.16	12712.38	8.92
2.Personal Accident Insurance	542.57	17.61	635.56	17.14	749.89	17.99	901.32	20.19	1075.55	19.33	1175.16	9.26	1174.11	−0.09	1210.19	3.07	1073.23	−11.32
3.Health Insurance	1587.18	41.27	2410.47	51.87	4042.50	67.71	4389.46	8.58	5448.13	24.12	7065.98	29.70	8172.71	15.66	8447.02	3.36	8652.94	2.44
4.Life Insurance	10901.69	15.67	13241.52	21.46	17442.22	31.72	21455.57	23.01	20722.86	−3.41	22754.14	9.80	23981.92	5.40	23571.85	−1.71	24518.63	4.02
Claims and Payments	7216.21	16.15	8674.14	20.20	10512.89	21.20	11180.79	6.35	12297.87	9.99	12893.97	4.85	13907.10	7.86	15608.64	12.24	15485.14	−0.79
1.Property Insurance	3788.21	10.15	4194.17	10.72	4726.18	12.68	5087.45	7.64	5897.32	15.92	6501.62	10.25	6954.79	6.97	7687.50	10.54	7756.95	0.90
2.Personal Accident Insurance	128.42	17.27	151.84	18.24	183.01	20.53	223.69	22.23	267.70	19.68	297.66	11.19	316.04	6.17	352.39	11.50	337.26	−4.29
3.Health Insurance	571.16	38.92	762.97	33.58	1000.75	31.17	1294.77	29.38	1744.34	34.72	2351.48	34.81	2921.16	24.23	4028.50	37.91	3599.53	−10.65
4.Life Insurance	2728.43	21.09	3565.17	30.67	4602.95	29.11	4574.89	−0.61	4388.52	−4.07	3743.21	−14.70	3715.11	−0.75	3540.25	−4.71	3791.40	7.09
Operating Expenses	2795.79	13.67	3336.72	19.35	3895.52	16.75	4288.06	10.08	4717.73	10.02	5490.57	16.38	5728.05	4.33	5224.93	−8.78	5238.88	0.27
Bank Deposits	25233.44	11.45	24349.67	-3.50	24844.21	2.03	19274.07	−22.42	24363.50	26.41	25227.42	3.55	25973.45	2.96	26178.59	0.79	28347.87	8.29
Investment	66997.41	23.54	87445.81	30.52	109066.46	24.72	129932.14	19.13	139724.88	7.54	120618.47	−13.67	190827.68	58.21	206101.46	8.00	222161.06	7.79
Of Which: Government Bonds	5009.88	4.88	5831.12	16.39	7796.24	33.70	10167.99	30.42	14027.62	37.96	20672.01	47.37	32069.60	55.14	43054.84	34.25	51139.60	18.78
Securities Investment Funds	4714.28	31.85	8856.50	87.87	8554.46	−3.41	7524.77	−12.04	8650.55	14.96	9423.29	8.93	11040.41	17.16	12248.02	10.94	13971.79	14.07
Total Assets	101591.47	22.57	123597.76	21.66	151169.16	22.31	167489.37	10.80	183308.92	9.45	205644.92	12.18	232984.30	13.29	248874.05	6.82	271467.47	9.08

Notes: ① Data of premium income, claims and payments and operating expenses are data for the year.
② Data of bank deposits, investment and total assets are data of the year-end balance.
③ Because some institutions are in the process of risk resolution, data for 2021 do not include those of these institutions.

Source: The CBIRC and the former CIRC.

Table 21 The Structure of Non-life Insurance Premium Income, 2018-2022

(RMB 100 million, %)

Insurance Lines	2016	Proportion (percent)	2017	Proportion (percent)	2018	Proportion (percent)	2019	Proportion (percent)	2020	Proportion (percent)	2021	Proportion (percent)	2022	Proportion (percent)
Automobile Insurance	6834.55	73.76	7521.07	71.35	7834.02	66.64	8188.32	62.91	8244.75	60.70	7772.68	56.83	8210.18	55.23
Enterprise Property Insurance	381.54	4.12	392.10	3.72	423.11	3.60	464.10	3.57	490.26	3.61	519.76	3.80	553.38	3.72
Cargo Transportation Insurance	85.46	0.92	100.19	0.95	121.11	1.03	130.12	1.00	135.96	1.00	167.72	1.23	177.93	1.20
Accident Insurance	247.69	2.67	312.66	2.97	416.60	3.54	526.57	4.05	540.90	3.98	627.30	4.59	574.06	3.86
Liability Insurance	362.35	3.91	451.27	4.28	590.79	5.03	753.30	5.79	901.13	6.63	1018.44	7.45	1147.50	7.72
Others	1354.60	14.62	1764.09	16.73	2370.06	20.16	2953.92	22.69	3270.69	24.08	3570.59	26.11	4203.50	28.27
Total	9266.17	100.00	10541.38	100.00	11755.69	100.00	13016.33	100.00	13583.69	100.00	13676.48	100.00	14866.54	100.00

Note: Because some institutions are in the process of risk resolution, data for 2021 do not include those of these institutions.
Source: The CBIRC, the former CIRC.

Table 22 The Structure of Life Insurance Premium Income, 2018-2022

(RMB 100 million, %)

Insurance Lines	2016	Proportion (percent)	2017	Proportion (percent)	2018	Proportion (percent)	2019	Proportion (percent)	2020	Proportion (percent)	2021	Proportion (percent)	2022	Proportion (percent)
Life Insurance	17442.09	80.40	21455.49	82.40	20722.80	78.91	22754.14	76.80	23981.92	75.97	23571.84	75.49	24518.62	76.40
Of Which: Common Life Insurance	10451.65	48.18	12936.48	49.68	9120.97	34.73	10473.62	35.35	12545.94	39.74	13520.14	43.30	15808.90	49.26
Participating Insurance	6879.77	31.71	8403.20	32.27	11489.15	43.75	12166.97	41.07	11327.18	35.88	9952.80	31.88	8610.09	26.83
Unit-linked Insurance	3.85	0.02	3.91	0.02	4.12	0.02	4.40	0.01	4.33	0.01	3.72	0.01	3.63	0.01
Accident Insurance	502.20	2.32	588.66	2.26	658.95	2.51	648.60	2.19	633.21	2.01	582.89	1.87	499.17	1.56
Health Insurance	3748.51	17.28	3995.40	15.34	4879.12	18.58	6225.68	21.01	7058.50	22.36	7068.94	22.64	7072.84	22.04
Total	21692.81	100.00	26039.55	100.00	26260.87	100.00	29628.42	100.00	31569.16	100.00	31223.67	100.00	32090.63	100.00

Note: ① Data of 2021 do not include the insurance premium income of life insurance business of China United Insurance Holding Company.
② Because some institutions are in the process of risk resolution, data for 2021 do not include those of these institutions.
Source: The CBIRC, the former CIRC.

Table 23 Insurance Premium Income of China's Different Regions in 2022

(RMB 100 million)

Regions	Insurance Premium Income	Property Insurance	Life Insurance	Accident Insurance	Health Insurance
Total	46957	12712	24519	1073	8653
Guangdong	4367	1148	2332	122	765
Jiangsu	4318	1124	2466	87	641
Shandong	2908	721	1504	63	620
Beijing	2758	479	1724	49	507
Zhejiang	2713	819	1400	60	433
Henan	2370	579	1279	46	465
Sichuan	2298	598	1211	56	433
Shanghai	2095	555	1132	56	352
Hebei	2043	591	1040	43	369
Hubei	1952	423	1096	39	395
Hunan	1614	430	818	37	329
Shenzhen	1528	418	691	38	381
Anhui	1418	487	646	35	250
Fujian	1104	280	562	26	236
Shaanxi	1102	273	620	22	188
Shanxi	1013	249	579	20	164
Liaoning	1001	311	484	19	187
Heilongjiang	982	218	522	15	226
Chongqing	981	227	520	22	213
Jiangxi	972	304	475	23	170
Guangxi	810	261	363	26	159
Yunnan	725	277	271	26	150
Xinjiang	681	232	299	17	134
Jilin	678	187	330	12	149
Tianjin	670	157	385	13	116
Inner Mongolia	667	223	304	14	126
Guizhou	504	230	176	19	80
Qingdao	502	154	239	11	98
Gansu	491	140	260	13	78
Ningbo	416	191	171	11	44
Dalian	401	93	244	7	57
Xiamen	270	79	142	6	43
Ningxia	216	71	102	7	36
Hainan	201	79	83	5	33
Qinghai	106	45	42	3	16
Tibet	39	28	5	2	4
Group and Head Office Level	42	31	0	3	8

Note: ① Data of “Group and Head Office Level” refer to the premium income earned by the group and head office, which are not reflected in any region’s data.

② Because some institutions are in the process of risk resolution, data summarized by region do not include those of these institutions.

Source: The CBIRC.

Table 24 Transactions of Payment Systems

(100 million transactions, RMB trillion)

Items \ Year	2018		2019		2020		2021		2022	
	Number	Value	Number	Value	Number	Value	Number	Value	Number	Value
HVPS	10.73	4353.48	10.94	4950.72	5.12	5647.73	4.82	6171.42	4.16	7425.74
BEPS	21.83	35.53	26.27	60.58	34.58	146.87	38.81	162.55	41.58	167.72
IBPS	120.98	89.05	140.11	110.77	156.24	203.49	174.91	273.76	165.52	278.65
CFXPS	0.0214	8.33	0.0220	8.54	0.0266	10.27	0.0416	14.46	0.0475	17.15
CIPS	0.0144	26.45	0.0188	33.93	0.0220	45.27	0.0334	79.60	0.0440	96.70
Intra-bank Payment Systems of Commercial Banks	366.95	1332.09	164.69	1218.69	169.19	1588.32	184.51	2055.34	188.60	2183.00
Inter-bank Bankcard Payment System	355.14	120.29	1351.75	173.60	1,505.60	192.18	2080.04	226.95	2474.90	251.95
NetsUnion Clearing Platform	1284.77	57.91	3975.42	259.84	5431.68	348.86	6827.60	461.46	7713.49	450.50
Urban Commercial Banks Draft Processing System and Payment & Clearing System	0.63	0.59	0.05	0.73	0.08	1.10	0.16	1.87	0.27	2.60
Rural Credit Banks Payment & Clearing Systerm	5.98	3.03	13.02	2.93	17.38	2.64	25.30	3.27	40.57	3.24

Notes:① According to the PBC's requirement of "breaking the direct connection between third-party payment institutions and commercial banks", all third-party payment institutions join the system of UnionPay or NetsUnion, and the business between payment institutions and commercial banks, as well as business between the Urban Commercial Bank Clearing Co., Ltd. or members of Rural Credit Banks Funds Clearing Center and third-party payment institutions will not be included in calculating the transaction volume of the intra-bank systems of banks, urban commercial banks payment and clearing system, or rural credit bank payment and clearing system.

② From Q2 2018, the transaction volume of the inter-bank bankcard payment system only covers the clearing business and excludes inquiry, account verification and other transactions that are not related to the clearing business. From Q1 2019, the transaction volume of the inter-bank bankcard payment system incorporates the bank account-related Internet payment transactions that are made by payment institutions and via the system.

③ The transactions via the former Intra-City Clearing System (ICCS) have been migrated to the HVPS and BEPS since December 2020. Therefore, the transaction volume of the ICCS will not be disclosed separately since 2021.

④ The Urban Commercial Banks Draft Processing System and Payment & Clearing System includes the former City Commercial Banks Draft Processing System and Payment & Clearing System.

Source: The PBC.

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