BOC Research Institute

Global Banking Industry Outlook

2022Q3 (Issue 51) **July 5, 2022**

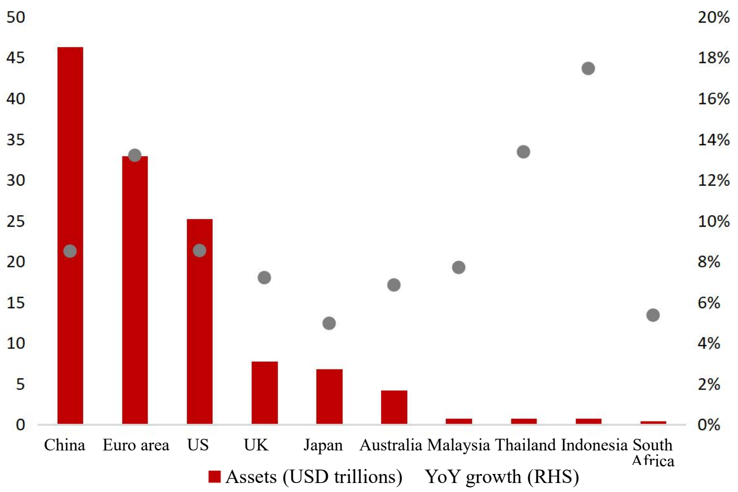
Highlights

● 2022Q3 will see a slowing global economy that poses rising uncertainties to the banking sector. With a stable expansion in size and divergence in profitability, the global banking sector may face new risks.

● China's macro-economy will remain generally sound in 2022Q3. The Chinese banking sector will continue to expand with the profitability ratcheting up in prudent operation, manifesting good quality of assets over the period.

● China's financial and economic systems are still facing challenges in 2022. The banking sector should play a pivotal role in supporting key industries and rural vitalization, enhancing risk management and helping stabilize the broader economy with higher-quality financial services. The Report will provide a special study in this respect.

Estimated size and YoY growth of banking assets in selected economies at the end of 2022Q3



Source: BOC Research Institute

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Banking Support for Macroeconomic Stability

-- Global Banking Industry Outlook (2022Q3)

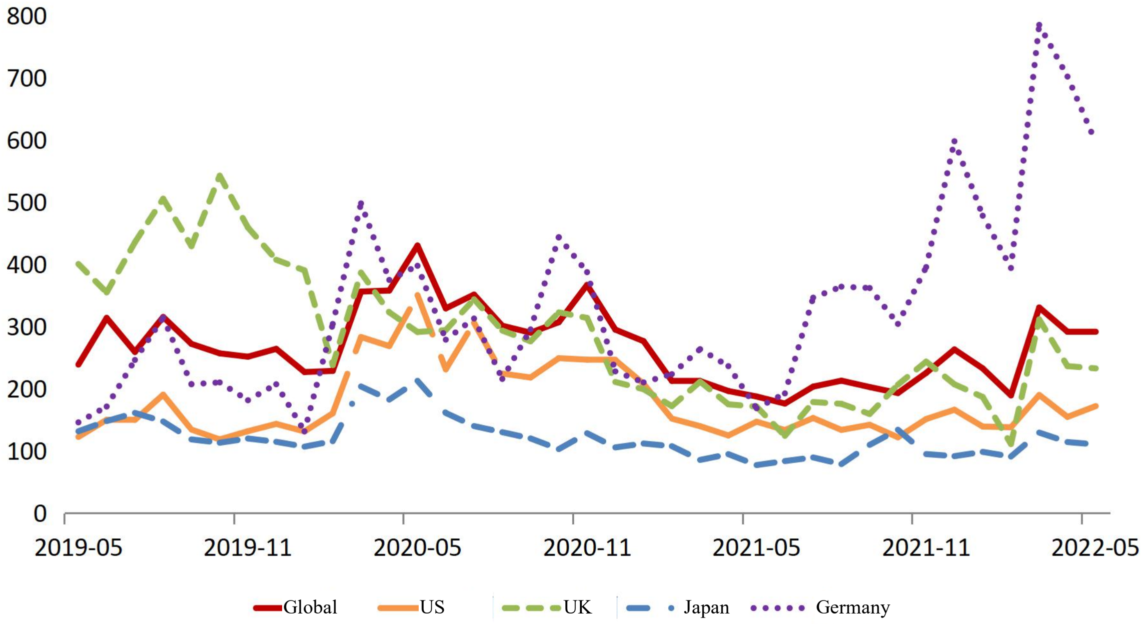
The global economic and financial systems are confronted with great challenges in 2022 to date. The global banking sector has expanded steadily, but with mounting pressure on profit growth and downside risk to asset quality. Relatively, China's macro-economy remains generally stable and sound. The Chinese banking sector has expanded steadily in scale, with the profitability ratcheting up from a high base and the asset quality continuously improving, and further strengthened its support for the real economy.

I. Global Banking Review and Outlook for 2022Q3

I.1 Global banking environment increasingly uncertain

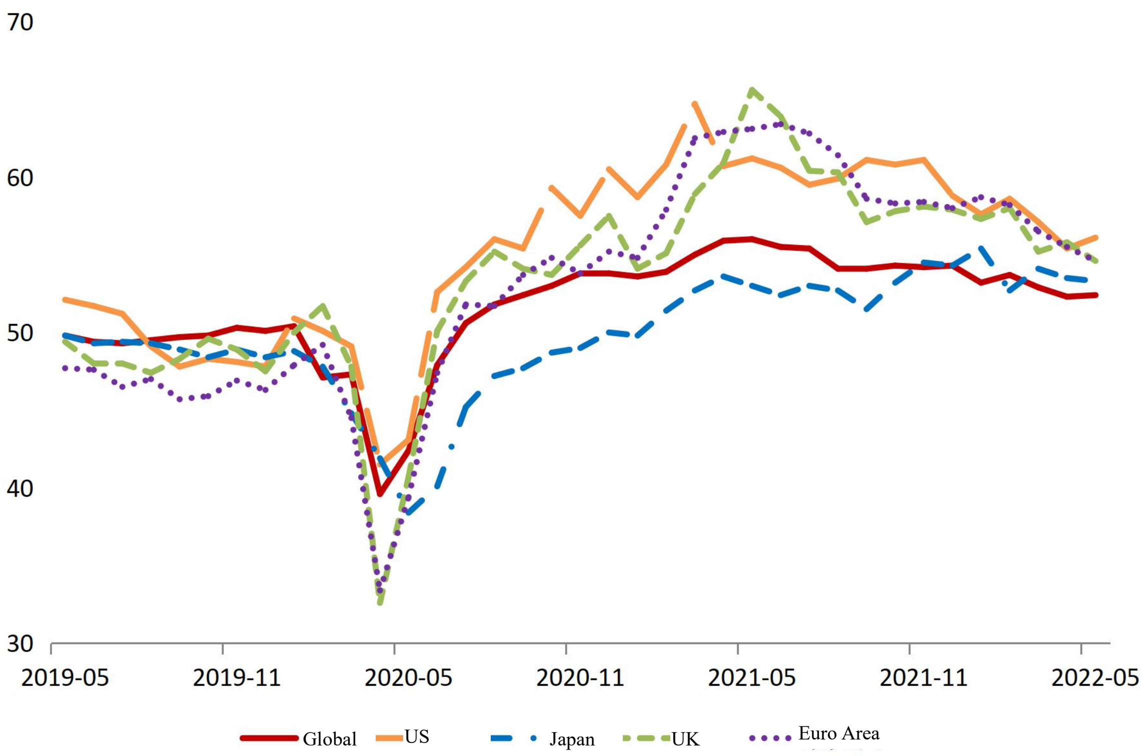
The world economy has slowed down significantly, amid lingering spillover effects of the Russia-Ukraine conflict. At the beginning of Q2, the World Bank and the International Monetary Fund (IMF) released reports lowering their forecasts for 2022 global growth to 3.2% and 3.6% respectively, from their earlier estimates of more than 4% at the beginning of the year. In early June, the World Bank further revised its forecast downward to 2.9%, noting that the Russia-Ukraine conflict would add strains to the battered world economy. The Global Economic Policy Uncertainty Index rebounded sharply in March, staying at a relatively high level compared with 2021 (Fig. 1). The world's and major economies' manufacturing PMI dipped mildly from the end of Q1, while major developed economies such as the euro area, Japan and the UK continued with a decline (Fig. 2). On the whole, the global banking sector faces rising uncertainty amid sluggish global growth and the ongoing the Russia-Ukraine conflict that is still disrupting the economic activity.

Fig.1: Economic Policy Uncertainty Index



Source: Wind, BOC Research Institute

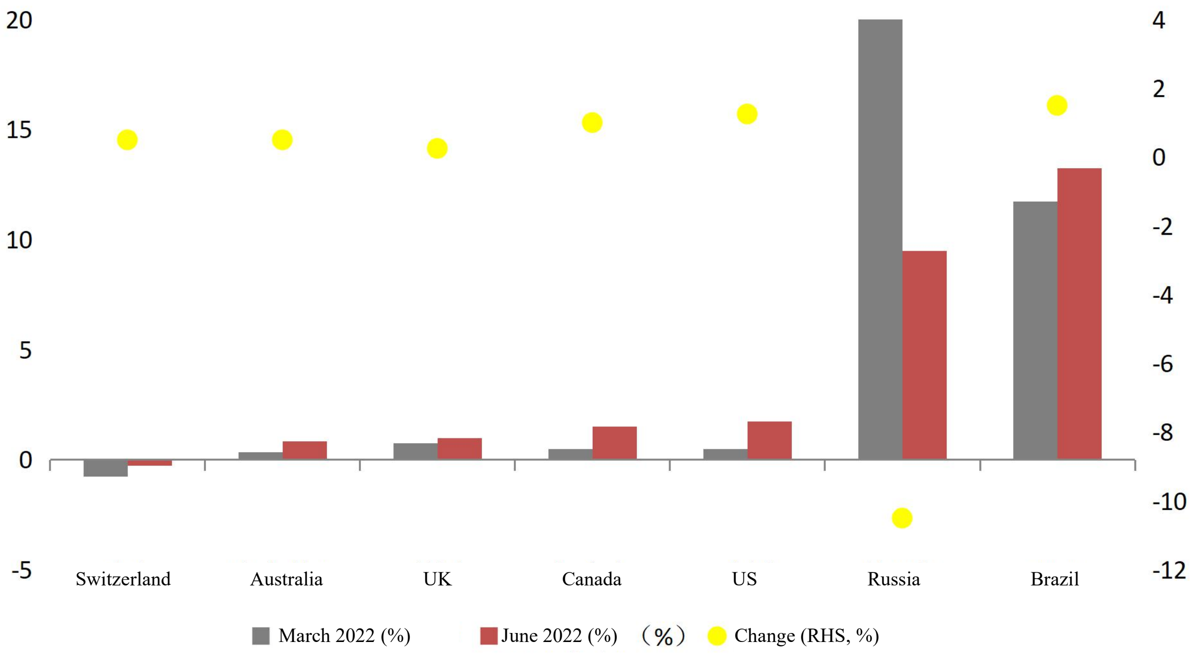
Fig. 2: Manufacturing PMI



Source: Wind, BOC Research Institute

To curb the rising risk of stagflation, major economies have made unconventional moves to raise interest rates. Supply disruptions to commodities, energy and food caused by geopolitical turmoil have further exacerbated inflation. Some major economies have embarked on more aggressive rate hikes. The US Federal Reserve (the “Fed”) announced to lift the target range for the federal funds rate by 50 bps and 75 bps in May and June, respectively, to the current range of 1.5% to 1.75%. The Fed also hinted another hike of 75 bps or 50 bps in July. The Bank of England (BoE) announced its fourth rate hike of 25 bps this year to 1.25%, the highest since 2009. The Swiss National Bank (SNB) raised interest rates for the first time in 15 years, lifting its policy rate from-0.75% to -0.25%. Central banks in Canada, Australia and some other countries have also hiked rates slightly (Fig. 3). Faced with the adverse impact of hotter inflation and a stronger US Dollar Index, some emerging economies were forced to further adjust their monetary policies. In June, Brazil’s central bank announced another rate hike of 50 bps, raising the benchmark rate to 13.25%, the 11th consecutive hike since March last year. The unconventional monetary tightening in major economies may lead to an overall pickup in global interest rates, pushing up the market rates and widening the interest rate spread in the banking sector.

Fig. 3: Policy Rate Changes in Selected Countries in 2022Q2



Source: Central banks, BOC Research Institute

The financial regulatory environment continued to tighten and the prudential regulatory framework gradually strengthened, placing higher requirements on banks. In 2022H1, major economies' banking regulatory policies focused on forestalling systemic financial risks. Their policy efforts were mainly oriented to strengthening banking institutions' overall risk resilience and improving the regulatory rules for new risks, thus guiding the banking sector to properly cope with new uncertainties with a gradually tightening regulatory stance. In April, the European Banking Authority (EBA) proposed reforms regarding macro-prudential regulatory framework for the banking sector, including resetting the regulatory capital buffer requirements for banks and assessing the current regulatory instruments' ability to cope with environmental changes, crypto assets and cybersecurity risks, in a bid to toughen the overall regulatory environment. The Federal Deposit Insurance Corporation (FDIC) of the US has issued new regulatory rules for crypto-related activities, requiring banking institutions to report their crypto-related activities to FDIC and guard against related security risks. Emerging economies are also stepping up supervision over cryptocurrencies and central bank digital currencies (CBDCs). In April, Brazil created ground rules for digital currency funds and their day-to-day use, tightening its regulation over the cryptocurrency market. In addition, the Basel III final reform package will be officially implemented worldwide in 2023. The Financial Stability Board (FSB) and the IMF are accelerating efforts to address the disparities among economies in regulatory data disclosure, thereby boosting the effectiveness of global financial regulation.

I.2 Global Banking Outlook for Q3

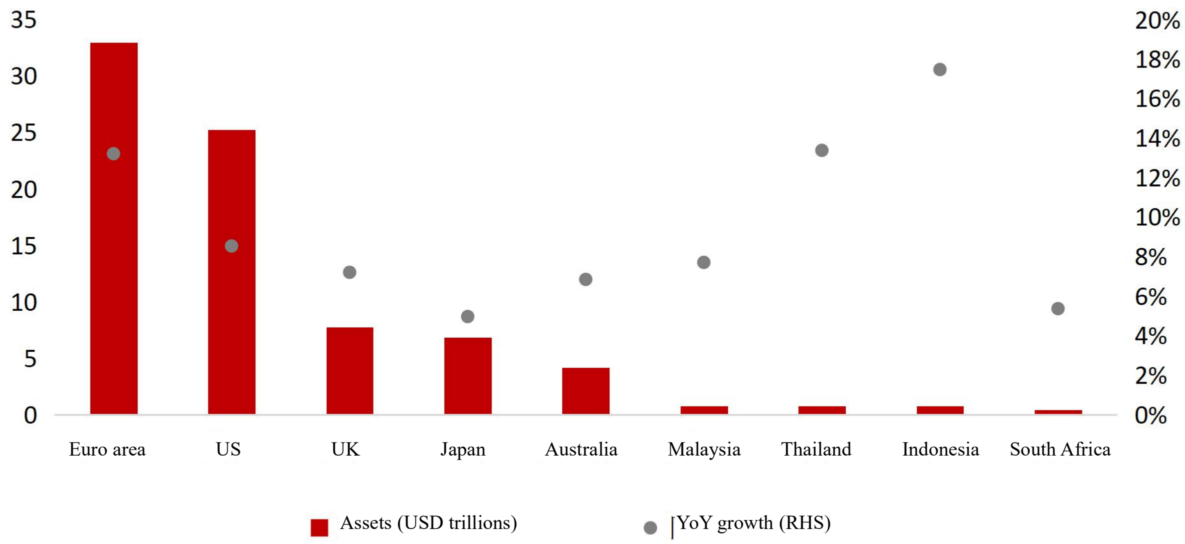
In the context of increasing uncertainty in global economic growth and ongoing tightening of financial regulatory environment, the global banking sector remains relatively stable in general, yet still under some pressure.

1. The global banking sector will maintain stable expansion led by emerging markets

Up to the end of 2022Q3, total assets in the global banking sector will expand at a relatively stable pace, rather than very fast, amid uncertainties including sluggish global growth and the

Russia-Ukraine conflict. Total assets in the US banking sector will reach USD25.2 trillion, up 6.4% YoY, with deposits and loans increasing 7.5% and 2.1% YoY, respectively. Total assets in the euro area's banking sector will amount to USD32.9 trillion, up 13.2% YoY. Total assets of the UK's five largest banks and Australia's banks will hit USD7.8 trillion and USD4.2 trillion respectively, up 7.2% and 6.8% YoY. Total assets of Japan's top three banks will reach USD6.8 trillion, up 5.0% YoY. The banking sector in emerging markets, especially in Asia, will continue to expand at a higher rate than its counterpart in the developed economies. At the end of Q3, the total banking assets of Thailand, Malaysia and Indonesia are expected to reach USD740 billion, USD746 billion and USD758 billion respectively, up 13.4%, 7.7% and 17.5% YoY. Total banking assets of South Africa will stand at USD448 billion, up 5.4% YoY (Fig. 4).

Fig. 4: Estimated Size[1] and YoY Growth of Banking Assets in Selected Economies at the end of 2022Q3



Source: Central banks and regulatory authorities, financial statements of banks, BOC Research Institute

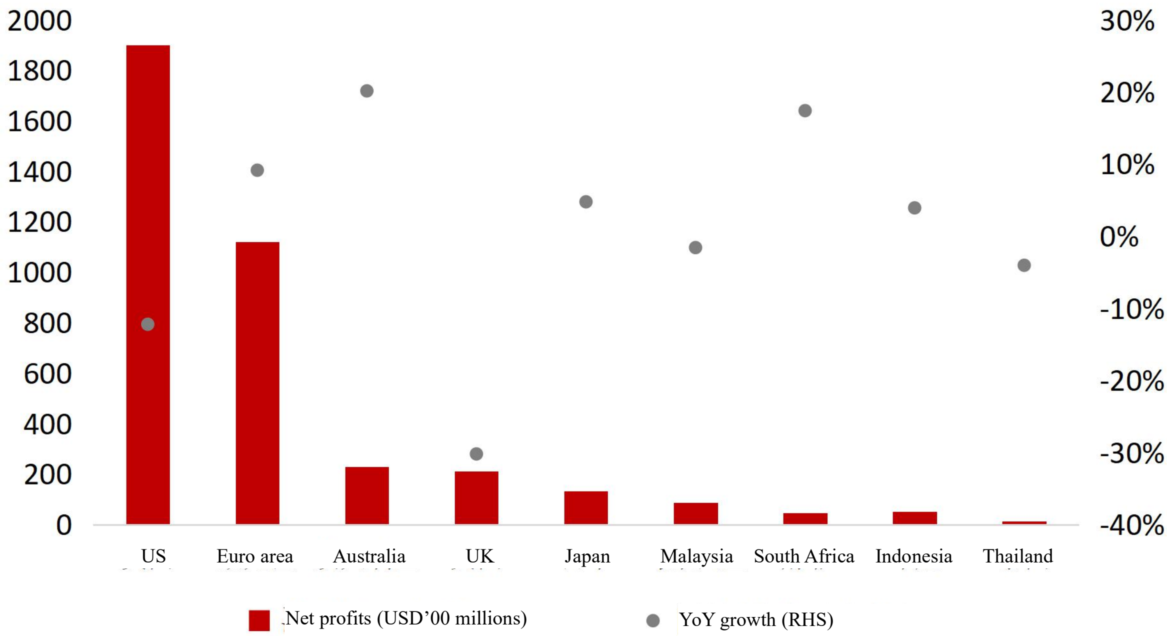
2. Profit growth is under great pressure and markedly divergent

At present, the net interest income of some economies' banking sector has been steadily rising in a favorable monetary policy environment, warranting solid profits. However, profits are challenged by the loan loss provisions set aside to cushion the possible shocks from financial market turmoil and the Russia-Ukraine conflict. Overall, the global banking sector is facing certain challenges on profit growth, and the world's economies will continue to show disparities in the banking sector. In 2022Q1-Q3, the US banking sector will generate a net profit of USD190 billion, down 12.3% YoY, with a rising level of provisions. The top five UK banks' net profit will reach USD21.2 billion, down 30.2% YoY. Net profit of Australian banks will reach USD22.9 billion, up 20.1% YoY. From the end of March to the end of September, the net profit of Japan's three largest banks will increase 4.7% YoY. Emerging markets, dominated by the Asian market, will keep the net banking profit relatively stable, expected to show a decline in profit in some parts of the region. In 2022Q1-Q3,

[1] The data for the European banking sector covers 36 major banks. The UK banking data cover five major banks, namely HSBC Holdings, NatWest, Lloyds Bank, Standard Chartered Bank and Barclays Bank. The big five contributed more than 70% of the UK's total banking assets. Japan's banking data are composed of three major financial groups, namely Mitsubishi UFJ, Sumitomo Mitsui and Mizuho Financial Group, which contributed about 60% of Japan's total banking assets. The same applies below.

the net banking profit in Thailand, Malaysia and Indonesia will drop 1.6%, fall 4.1% and increase 3.9%, respectively. South African banks' net profit will jump 17.4% YoY (Fig. 5).

Fig. 5: Estimated Net Profits of Banks in Selected Economies and YoY Growth in 2022Q1-Q3

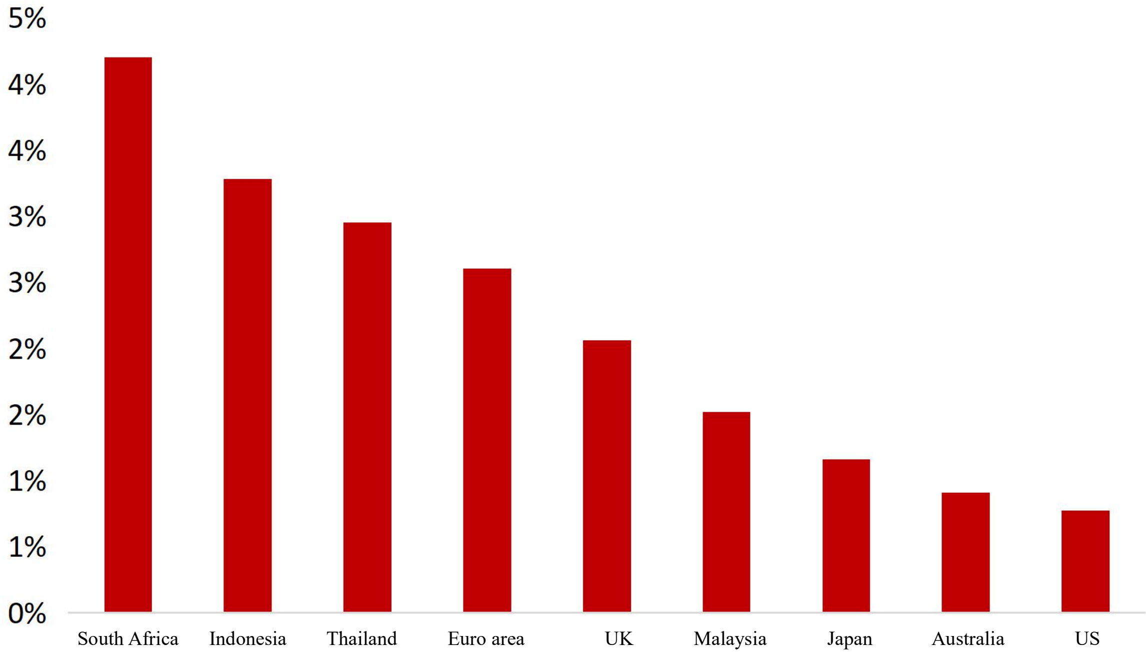


Source: Central banks and regulatory authorities, financial statements of banks, BOC Research Institute

3. The asset quality is generally under control, with risk factors still existing

In Q1, the asset quality was generally good across the global banking sector. The balance of loans overdue for 90 days or more in the US banking sector decreased 4.5% as compared with 2021Q4, with the ratio of non-performing loans (NPLs) down 5 bps to 0.84%, the lowest since the onset of the pandemic, even better than the pre-COVID-19 level. The NPL ratio for banks in the euro area, Australia, Japan and the UK was 2.40%, 0.90%, 1.06% and 1.95%, respectively. The quality of banking assets in emerging markets remained relatively stable, with the NPL ratio for Thailand, Malaysia and Indonesia standing at 3.11%, 1.55% and 3.08%, respectively. South African banks' NPL ratio would hit 4.20%. In Q2 and Q3, however, the pressure on NPL mitigation that built up during the pandemic was gradually released. As the impact of the Russia-Ukraine conflict and volatile global financial markets has intensified, the global banking sector is exposed to much higher risks, confronted with great challenges in asset quality management. At the end of Q3, the NPL ratio of banks in the US, the euro area, Australia, Japan and the UK is projected to be 0.8%, 2.6%, 0.9%, 1.2% and 2.1%, respectively (Fig. 6).

Fig. 6: Estimated NPL Ratios of Banks in Selected Countries at the End of 2022Q3

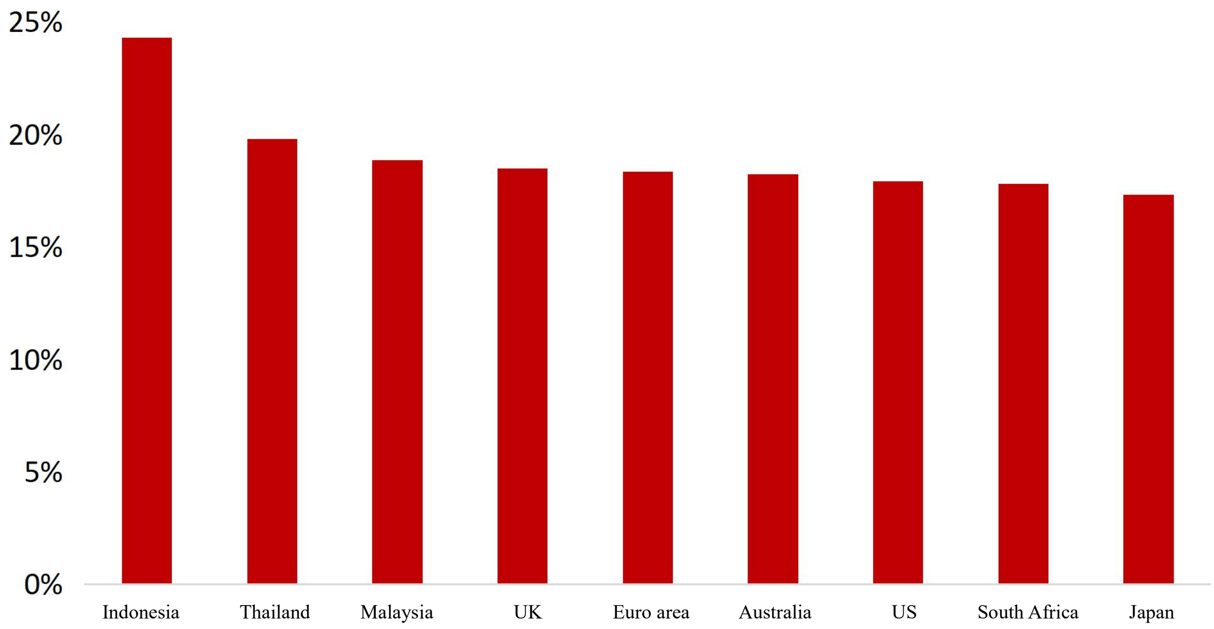


Source: Central banks and regulatory authorities, financial statements of banks, BOC Research Institute

4. The capital base is stable and sound, laying a solid foundation for risk resistance

Since 2022 began, the global banking sector has actively optimized capital allocations and consolidated the capital base. The overall capital adequacy has been steadily improving with a sufficient capacity to cover risks. At the end of Q1, the capital adequacy ratio (CAR) of US banks was 15.04%. Banks in the euro area, Australia, Japan and the UK registered a CAR of 18.50%, 18.10%, 16.13% and 16.78%, respectively. The CAR of banks in Thailand, Malaysia and Indonesia reached 19.79%, 18.24% and 24.73%, respectively. At present, the global banking sector is further raising the capital adequacy level and strengthening the ability to cover risks by diverse means, including retention of more earnings and capital market financing. At the end of Q3, the CAR of banks in the US, the euro area, Australia, Japan and the UK is expected to be 17.9%, 18.3%, 18.2%, 17.3% and 18.5%, respectively. Emerging economies will keep their CAR relatively stable, with Thailand, Malaysia and Indonesia expected to record 19.8%, 18.9% and 24.3% in CAR respectively at the end of Q3. South African banks will register a CAR of 17.8% (Fig. 7).

Fig. 7: Estimated CAR of Banks in Selected Countries at the End of 2022Q3



Source: Central banks and regulatory authorities, financial statements of banks, BOC Research Institute

II. China's Banking Review and Outlook for 2022Q3

II.1 China's banking sector is stable and sound

Since Q2, China's macro-economy has been clinging to the general principle of ensuring stable growth. The battle to safeguard the broader economy has officially begun. The banking sector has further strengthened its support for the real economy and provided high-quality financial services to bolster the economy and meet basic living needs.

First, China sticks to the general principle of ensuring stable macro-economic growth, laying a solid foundation for banks to pursue progress while ensuring stability. In Q2, the Chinese economy felt the impact from international political turmoil and domestic COVID-19 resurgence. In May, the State Council held a national teleconference on stabilizing the economy and introduced 33 measures in pursuit of the goal. With the task of ensuring stable growth occupying an even more prominent position in China's priority list, the banking sector has played a crucial role in the push for stability, and will also embrace more business opportunities. Boosting consumption is the key internal driver of domestic demand and economic growth. In Q1, the contribution of final consumption expenditure to economic growth was 69.4%. In Q2, the sporadic outbreaks of COVID-19 affected work and life in some areas and dampened local people's willingness to spend. Retail sales of consumer goods fell 11.1% YoY in April. New consumption and new scenarios such as online, education, pension, and child care services became very popular. Banks have made a faster foray into such new fields of consumer finance to foster new forms of consumption. Investment has given a remarkable boost to the economy. The affordable rental housing and renovation of old residential areas has great potential. Infrastructure investment is expected to grow rapidly, creating bigger room for growth of corporate banking. The manufacturing investment is resilient, still led by new energy vehicles, solar cells, mobile base stations and other high-tech manufacturing sectors, for which banks will further increase credit support. Foreign demand growth has softened amid the pandemic and the Russia-Ukraine conflict. An array of policies were introduced to stabilize foreign trade and foreign investment. Banks have provided cross-border financing guarantees, cross-border supply chain finance, cross-border trade blockchain and other financial services to help open wider to the outside world.

Second, a combination of fiscal and monetary policies has fully played out to encourage stronger banking support for the real economy. In May, the Ministry of Finance issued the *Circular on Unleashing the Fiscal Policy Guidance to Support Financial Services for the Relief and Development of Distressed Market Entities*. The People's Bank of China (PBOC) held a meeting to analyze the monetary and credit situation and made work arrangements for stabilizing credit growth. The proactive fiscal policy and the prudent monetary policy were in full swing to encourage stronger credit support for the real economy from banks and other financial institutions. On the fiscal policy front, tax and fee reductions were strengthened to ease the tax burden on micro, small and medium-sized enterprises and manufacturers seeking high-quality development. With government financing guarantees, guaranteed loans, interest subsidies to people starting a new business and inclusive finance incentives and subsidies in place, financial resources were leveraged to better help the real economy in distress. Banks are much more active in supporting key areas and weaker links such as micro, small and medium-sized enterprises, self-employed individuals, personal business startups and agriculture, rural areas and farmers. Inclusive finance and high-tech finance have a promising future. Monetary policy tools were employed to further adjust both monetary aggregate and monetary structure. In aggregate terms, liquidity was kept reasonably sufficient by lowering the reserve requirement ratio (RRR) and interest rates. In April and May, financial institutions' RRR was lowered by 0.25 percentage point, and the 5-year LPR was reduced to 4.45%, driving down lending rates and reducing financing cost of enterprises. In structural terms, innovative relending and rediscounting instruments were introduced to provide additional credit resources. Since the end of April, two new special-purpose relending instruments (i.e. technological innovation and inclusive pension finance) have been launched. The relending quota dedicated to clean and efficient use of coal has been increased by RMB100 billion, pointing out the direction for new lending from banks. The banking sector is guided to properly use structural monetary policy instruments and channel more funds into manufacturing, services and small and micro businesses hit hard by COVID-19, thereby expanding the credit aggregate with an improved structure.

Third, financial regulation takes into account both promoting growth and forestalling risks, keeping banks on course to help stabilize economic growth. Since Q2, financial supervision has focused more on business development in key areas and weaker links, as well as ensuring financial security and preventing and controlling financial risks. From the perspective of promoting growth, regulatory authorities have successively issued a series of policies to promote rural vitalization across the board, further strengthen financial support for the development of small and micro businesses, financial support for unimpeded flows of goods, 23 measures to benefit businesses and people and help distressed businesses, support high-quality development of road transportation, regulate and promote the development of commercial old-age financial services, support urban construction and governance, create a long-term mechanism to encourage lending to small and micro businesses and provide guidance on green finance. These policies have guided the banking sector to increase its support for key areas and weaker links such as small and micro businesses, rural vitalization, cargo shipping, road transport, pension industry and green transition, regulate business development and improve service quality and efficiency. From the perspective of forestalling risks, under the dual pressures of international turmoil and domestic economic downturn, the financial stability and financial security have become the regulatory focus. The *Financial Stability Law of the People's Republic of China (Exposure Draft*) was issued, with the aim of improving the law-based financial service governance, establishing a long-term mechanism for maintaining financial stability and forestalling and defusing financial risks in a systematic and forward-looking manner. At the banking business level, the mechanism involves the administrative measures for internal control of wealth management companies, the administrative measures for issuance of non-capital bonds with total loss absorbing capacity (TLAC) by global systemically important banks and implementation of the expected credit loss (ECL) method, the administrative measures for consumer protection and the administrative measures for regulatory statistics. This will guide banks to enhance globalization and diversification, strengthen data governance, better guard against credit risk and reputational risk and comprehensively coordinate financial development with financial security.

II.2 Outlook for China's banking industry in Q3

First, the banking assets and liabilities will maintain solid growth. Commercial banks' assets and liabilities totaled RMB301.8 trillion and RMB277.4 trillion at the end of Q1, up 9.39% and 9.26% YoY, respectively. On the whole, the economic fallout from COVID-19 abated. The pro-cyclical banking sector experienced a steady balance sheet expansion in an increasingly improving environment. In 2022, China's GDP growth target was set at around 5.5%, with an actual GDP growth of 4.8% recorded for Q1. Under the new development paradigm featuring "dual circulation", which takes the domestic market as the mainstay while letting domestic and foreign markets boost each other, banks will increase their support for the real economy. There are strong internal drivers of banks' balance sheet expansion. In 2022Q3, China's commercial banks are expected to remain in pursuit of progress while ensuring stability, with the balance sheet expanding at round 8.5% in general.

Second, the profit level will steadily rise from a high base. At the end of Q1, commercial banks recorded RMB659.5 billion in accumulated net profit, a YoY increase of 7.4%, showing a back-to-normal growth trajectory as the low comparison base no longer existed. ROE and ROA were 10.92% and 0.89%, representing a YoY decrease of 0.36 and 0.02 percentage points, respectively. It is worth noting that new changes have occurred to the revenue structure of commercial banks: In terms of interest income, the net interest margin (NIM) was 1.97%, an all-time low posing challenges to net interest income. Non-interest income accounted for 21.81%, up 0.21 percentage points YoY, showing a rebound. In Q3, commercial banks will persist in reducing fees and making interest concessions to the real economy. With the lending rates likely to further decline, banks will retain their revenue level by expanding volume. Non-interest income has become an important pillar for banks' earnings. Banks will harness their own advantages to develop a variety of intermediate businesses, including investment banking, wealth management and trust. In addition, against the background of ongoing digital transition, banks will fully leverage FinTech to keep reducing the costs of operations, human resource and customer services, thus boosting profitability from the cost side. Overall, the net profits of commercial banks are expected to grow 8% in Q3.

Third, asset quality will continue to improve. Commercial banks saw their asset quality improving in Q1, as evidenced by a YoY fall of NPL ratio by 0.11 percentage point to 1.69% in spite of a YoY increase of 4.45% in NPL balance to RMB2.9 trillion. Commercial banks further strengthened their ability to cover risks. At the end of Q1, commercial banks recorded RMB5.8 trillion in balance of loan loss provisions, up 12.02% YoY, with a provision coverage ratio (PCR) of 200.7%, up 13.56 percentage points YoY. With the asset quality steadily improving, CBIRC encourages large banks with higher provisions and other high-quality listed banks to gradually bring the provisioning ratio back to normal, thus releasing the space for profit while increasing credit and eventually strengthening financial support for the real economy. In Q3, thanks to recovery from the pandemic and the economic fundamentals tending to stabilize, commercial banks will see their asset quality further improving with a rising balance and falling ratio of NPLs. The NPL ratio will further drop to about 1.68%. Given the strong shocks from sporadic coronavirus outbreaks on loans to some industries and enterprises, the balance of NPLs may increase slightly. The risks in key industries and smaller banks should be monitored on an ongoing basis.

Fourth, capital adequacy will be good. Since 2022 began, regulators have supported banks' capital replenishments by diverse means, effectively improving the capital adequacy of commercial banks, especially small and medium-sized banks. Commercial banks' common equity tier 1 CAR, tier 1 CAR and CAR stood at 10.70%, 12.25% and 15.02%, up 7 bps, 34 bps and 11 bps YoY, respectively. Since Q2, some banks have slowed down their issuance of Tier 2 capital bonds. In Q3, commercial banks will get back on track to replenish capital to meet the increasingly stringent capital regulatory requirements and step up support for the real economy. Overall, the capital adequacy of China's commercial banks will remain stable through Q3. However, some of the smaller banks will be under great pressure to replenish capital due to their narrow replenishment channels and limited access to equity financing.

Table 1: Forecasts on China's Commercial Banking Development Indicators in 2022

	Indicator	2020	2021	2022Q1	2022H1(E)	2022Q3(E)
Size	Assets (RMB trillions)	265.8	288.6	301.8	305	309
	Liabilities (RMB trillions)	244.5	264.7	277.4	281	283
	Growth of assets, YoY (%)	10.98	8.58	9.39	8.5	8.5
	Growth of liabilities, YoY (%)	11.13	8.26	9.26	8.5	8.5
Profit	Net profit (RMB trillions)	1.94	2.18	0.66	1.2	1.8
	ROA (%)	0.77	0.79	0.89	0.8	0.8
	ROE (%)	9.48	9.64	10.92	10.0	9.7
	Net interest margin (%)	2.10	2.08	1.97	1.95	1.95
	Cost/income ratio (%)	31.19	32.08	27.72	28.6	29.6
Risk	NPL ratio (%)	1.84	1.73	1.69	1.69	1.68
	Provision coverage ratio (%)	184.5	196.9	200.7	199	197
	CAR (%)	14.70	15.13	15.02	15.1	15.3
	Core Tier 1 CAR	10.72	10.78	10.70	10.7	10.7

Source: CBIRC, BOC Research Institute

III. Special Research: Banking Support for Macroeconomic Stability

III. 1 China's banking sector helps stabilize the economy with high-quality financial services

1. The banking sector plays a pivotal role in stabilizing the economy

First, banking is a core component of China's financial system. In terms of scale, at the end of 2021, the total assets and total liabilities in China's financial sector were RMB381.95 trillion and RMB346.58 trillion, respectively, among which the banking assets and liabilities totaled RMB344.76 trillion and RMB315.28 trillion respectively, each accounting for more than 90% of the total.

Second, the banking sector supports the safe and stable development of the real economy. By adjusting the aggregate and structure of financial resources, funds are pumped into key areas and weaker links of the real economy. In forestalling and defusing financial risks, banks' risk management function exerts an influence over customers' investing and financing decisions through the funding chain, information chain and service chain, so as to mitigate their investment and financing risks, isolate risks and prevent cross-infection.

Third, banking is the key channel of transmission of macro-financial policies. The credit aggregate and structure are adjusted according to the monetary policy, with the deposit and loan interest rates repriced according to the interest rate policy and the economic entities precisely financed according to the financial policy, so as to meet the diverse financing needs of customers. At the same time, the funding cost, risk appetite, assessment mechanism and customer mix are adjusted to boost the efficiency of macro policy transmission.

Fourth, banking is an important area of China's financial opening-up to the outside world. The banking sector is at the forefront of financial opening-up. Chinese banks are "going global" actively. At the end of 2021, their overseas network covered more than 60 countries and regions, with overseas assets and revenue exceeding USD2 trillion and USD50 billion, representing 2 times, 3.5 times and 4.3 times that of a decade ago, respectively. Foreign banks have been "brought in" at a faster pace with lower entry thresholds, such as relaxed qualification requirements for shareholders and lower limit on foreign ownership. Foreign banks operate more than 900 institutions with business activities in China, with total assets of nearly RMB4 trillion.

2. The banking sector operates prudently to stabilize the economy

First, banking support for the real economy remains strong. Banks continue to implement fee reductions and interest concessions to the real economy. Since the 12-point fee reduction policy was introduced in September 2021, the banking sector has reduced fees and charges of more than RMB12 billion for over 82 million small and micro businesses. Relending and rediscounting facilities are used to increase credit supply. At the end of 2022Q1, the balance of loans to small and micro businesses eligible for inclusive finance, green loans and agriculture-related loans rose 24.6%, 38.6% and 12.2% YoY, respectively.

Second, systemic financial risks are forestalled and defused. In terms of real estate risk, the banking sector strictly implements the requirements for concentration management of real estate loans and differentiated housing credit policies. In terms of local government debt risk, banks fully cooperate with local governments in defusing the hidden debts of their existing financing vehicles and revitalizing idle assets through innovative instruments, such as asset-backed securities and infrastructure REITs. In terms of small and medium-sized banks, 627 high-risk smaller rural banks were disposed of cumulatively from 2018 to 2021, and non-licensed institutions operating illegally beyond local cities were literally cleared.

Third, banks have strengthened in-house risk management. In terms of credit risk, the banking sector disposed of about RMB12 trillion of non-performing assets from 2017 to 2021 by means of write-off, collection, securitization, debt-for-equity swap and NPL transfer. In terms of market risk, banks analyze the interest rate risk, foreign risk and commodity risk, monitor global financial markets and optimize the models and systems for market risk measurement. In terms of liquidity risk, the balance sheet structure is improved to stabilize the source of core deposits, replenish capital with perpetual bonds, Tier 2 capital bonds, private placement and rights issue.

Fourth, FinTech empowers digital transformation. Cutting-edge technologies are leveraged to innovate products and services, with financial products embedded into online platforms to create a scenario-based ecosystem where e-commerce, industry and platform interact. The financial market infrastructures such as payment and settlement systems, smart outlets and big data statistics are improved and explorations are made for the application of trusted technologies such as private computing, laying the foundation for safe implementation of new financial instruments including digital RMB and digital supervision systems, and improving business efficiency and security.

3. Future focus of banking support for stabilizing the economy

Looking ahead, economic growth is still confronted with challenges from the lingering fallout from COVID-19, escalation of geopolitical conflicts and confluence and evolvement of new and existing risks. The banking sector should take the initiative in contributing more to stabilizing the broader economy. **First, banking support for the real economy should be enhanced in every respect.** Banks should step up their support for individual customers, especially new urban residents, small and micro businesses, green development, technological innovation, infrastructure, transportation and other key areas and weaker links of the real economy, and also strengthen support for foreign trade, foreign investment and other cross-border financial services, so as to drive the "troika" of consumption, investment and export. **Second, comprehensive risk management should be enhanced.** Banks should balance stabilizing growth with forestalling risks. To ensure sustainable financial support for the real economy, financial risks should be properly forestalled while maintaining moderate credit growth. Risk analysis should be enhanced to make risk control more forward-looking, comprehensive and proactive. **Third, the two-way opening-up of the financial sector should be steadily advanced.** While joining the opening-up drive in a proactive manner, banks should pay more attention to external risks, optimize the global business network, strengthen the management of COVID-19 fight, business continuity and profitability of overseas institutions and effectively safeguard overseas assets.

III.2 The banking industry supports the development of key industries and sectors

The global economic recovery is sluggish amid the COVID-19 pandemic, geopolitical conflicts and other factors. Banks in all countries should provide targeted support for relevant industries and drive economic development.

1. Banks in developed economies increase financial support to frontier areas

At present, developed economies are actively propelling economic recovery, showing three major trends in industry development. First, emerging industries have gained growth momentum, such as enterprise-oriented information technology industries including cloud services, data centers, the Internet of Things, 5G, cybersecurity solutions, software and hardware, and consumer-oriented industries including digital office, digital education and digital healthcare. Second, key industries vital to core competitiveness and long-term development of a nation are supported, such as manufacturing, infrastructure, quantum computing, artificial intelligence, biotechnology, advanced semiconductor manufacturing and new energy. Third, conventional industries in pursuit of low-carbon transition and emerging clean energy industries are embracing growth opportunities. In respect of these key industries and sectors, the banking sector in developed economies meets the financial service needs of customers by providing a full range of products and services, specialization and customization in particular segments, strengthening financial innovation and flexible credit policies and establishing the networks of cooperation to drive economic development.

2. The banking sector in emerging economies focuses their support on inclusive finance

Emerging economies are in urgent need of financial support from the banking sector due to their weaker economic fundamentals and sluggish recovery, suffering wide funding gaps in inclusive finance areas such as agriculture. Commercial banks and policy banks in emerging economies have stepped up their cooperation in issuing agricultural loans at lower-than-benchmark rates, as well as a variety of special-purpose financial instruments such as loans for small and medium-sized farmers, agricultural insurance and irrigation loans, to serve agricultural development.

3. China's banking sector actively helps key industries shrug off the COVID-19 shocks

China's macro-economy has staged a recovery in 2022, but the industries hit hard by COVID-19, including hotels, restaurants, retail, culture, tourism and transportation, are still in need of more financial support. **Transportation and its upstream and downstream industries** are a key link in promoting growth and unimpeded flows in the national economy. Overall, a comprehensive credit support system has taken shape, with large commercial banks as the mainstay, supplemented by joint-stock commercial banks, city commercial banks and rural commercial banks. **Manufacturing** is the cornerstone of a country's economic development. Large domestic banks have initially formed a two-pronged service pattern of "sci-tech innovation + strategic emerging industries" to serve manufacturing clusters, and established sound cooperation with advanced manufacturing clusters including high-end equipment manufacturing, bio-pharmaceuticals, new energy vehicles and semiconductors, and with individual enterprises in these clusters. **Hotels, restaurants, wholesale and retail trade** are vital to people's livelihood, involving numerous small and micro businesses. Financial support should give priority to these industries battered by the pandemic. Banks have actively taken measures to increase their support and launched exclusive financing schemes to meet financing needs in key areas. **Green industry** is a focal point of the push for the goal of emissions peaking and carbon neutrality. Banks have been exploring a more diversified system of green financial products, pumping funds into green industry projects with significant carbon emission reductions. **Affordable rental housing** is an important field for the banking sector to implement the general principle that "houses are for living in, not for speculation" and meet the reasonable housing needs of key populations. Currently, the banking support for the affordable rental housing industry is still in the development stage. The industry will make breakthroughs as business models are getting mature.

4. Trends in China's banking support for industry development

In the future, China's banking sector should step up the following efforts persistently to support the development of key industries and sectors and bolster the economy. **First, increase credit supply.** The banking sector should accurately grasp the credit policy, expand the scale of new loans, plan credit distribution early and adjust the credit structure to ensure that credit funds are allocated to the real economy in a stable and balanced way. Credit support should be further strengthened for inclusive finance, green industry, sci-tech innovation, and transportation. Relending, rediscounting and other special credit policy tools should be well used and unsecured lending should be further supported. **Second, optimize the service models.** Customized financial support should be provided in line with industry characteristics, with innovative and targeted products and solutions offered to customers in each segment to boost the quality and efficiency of financial support. **Third, reduce service costs.** Banks should, based on their own strengths in development scale, customer base and staff competencies, put together intra-group financial resources to create a more diversified "mega investment banking" service model featuring collaboration between commercial banking and investment banking, online and offline operations as well as domestic and overseas institutions, thereby effectively reducing financing costs and solving financing problems in key industries.

III.3 Banking support for rural vitalization has huge potential

In recent years, the mechanisms and institutions for the banking support for rural vitalization have been continuously improved with a growing list of product and service offerings. More and cheaper financing has been provided for a wider range of customers within the scope of "agriculture, rural areas and farmers".

1. China's banking sector faces new opportunities to support rural vitalization and

development

First, the rural vitalization drive is in full swing. China has attained a complete victory in the fight against poverty and made great strides in agriculture, progressing steadily in rural development. The picture of beautiful countryside with strong agriculture and well-off farmers provides new market opportunities for the banking sector to support rural vitalization. **Second, "agriculture, countryside and farmers" have huge financing demand**. Rural infrastructure construction and agricultural industry development offer huge growth opportunities for financial services. Investment in agricultural technology innovation has been continuously increased, and policies, regulations and mechanisms for the ownership confirmation, valuation, mortgage, pledge and transfer of property rights in, for example, rural land have been continuously refined, to further facilitate the investment and financing of agriculture-related projects.

2. New features of China's banking support for rural vitalization

First, large and medium-sized banks are the backbone supporters of rural vitalization, while smaller regional banks are ramping up their support. From 2010 to 2020, the balance of agriculture-related loans from large and medium-sized nationwide banks increased to RMB14.12 trillion and RMB8.99 trillion respectively, accounting for 59.3% of total agricultural loans together. The agriculture-related loans from small banks such as city commercial banks and rural commercial banks rose to RMB13.94 trillion, close to the agriculture-related lending of large nationwide banks, accounting for 35.8% of total, up 21.4 percentage points from 2011.

Second, credit support for "agriculture, rural areas and farmers" is obviously divergent, and it is urgent to enhance financial support for agriculture. At the end of 2020, China's outstanding loans for agriculture, rural areas and farmers stood at RMB4.27 trillion, RMB32.27 trillion and RMB11.81 trillion, up 7.5%, 11.9% and 14.2% YoY, respectively.

Third, agriculture-related financial institutions have further broadened their penetration. The number of agriculture-related financial institutions in China is generally stable now. The count was 3,898 at the end of 2020. At the end of 2020, the number of outlets and employees of agriculture-related financial institutions was 80,000 and 978,000, representing an increase of 5.4% and 36.7% respectively from the end of 2009, respectively.

3. Challenges faced by the banking sector in supporting rural vitalization and development

First, a higher efficiency of fund utilization is required in rural areas. At present, China's rural banks, rural cooperatives and rural commercial banks in county areas generally have a loan-to-deposit ratio of 65% to 70%, about 20 percentage points lower than that in urban areas. **Second, rural financial products and services have yet to be diversified.** The financial products targeting farmers are mainly basic credit instruments, with limited offerings of additional financial services. **Third, a stronger capacity of comprehensive financial services is required for rural industry chains.** The financial support for agricultural industry chains mainly takes the form of credit financing, lacking of comprehensive financial services. The financial leasing market for agriculture is relatively scarce. **Fourth, the supporting systems such as rural credit reporting and collaboration need to be improved.** The mechanisms and institutions for pledge of rural land and other property rights should be improved. The collateral such as agricultural machinery and farm tools is usually low in value and illiquid.

4. International practices of banking support for rural vitalization

First, the US community banks are exploring the "relationship loan" model. Through interaction and communication with the borrowers and their network of acquaintances in the local community for an extended period of time, the "soft information" such as the borrower's personal integrity and management ability is collected as an important basis for issuing loans to customers. **Second, the Japan Agricultural Cooperatives provides targeted credit services for rural industry chains.** A full-fledged industry chain has been formed around the production and life of farmers. Credit issuance accompanies the agricultural activity and the everyday life of farmers, such as agricultural business loans, agricultural equipment loans, home mortgages and emergency loans or reconstruction loans for farmers in a business or family emergency. **Third, Bangladesh created a "no guarantee, no collateral" group lending system.** Grameen Bank, a well-known rural bank in Bangladesh, generally requires five people from the same village and with the same economic and social background to form a loan support group voluntarily. As a whole, the group members supervise each other and undertake the repayment responsibility, i.e. the group forms "intangible collateral" for the loan.

5. Future direction of China's banking support for rural vitalization

First, the banking support is shifting from "shoring up weak links" to improving quality and efficiency. The banking products will shift from "exclusive" to "inclusive" support. The focus will shift to supporting advantageous areas and key links in rural vitalization with inclusive finance products that are available more broadly. **Second, the banking support is extending from "basic services" to "in-depth services".** The banking sector should enhance its capacity of providing comprehensive financial services, including corporate and personal credit, bond issuance, participation in the rural vitalization funds and custody services. New models of digital inclusive finance should be explored by means of mobile banking, online banking and others. **Third, banking support is shifting from "poverty alleviation through industrial development" to "industrial vitalization".** In serving rural vitalization, the banking sector should focus on supporting industrial development. Priority should be given to leading enterprises in agricultural industrialization, new entities such as household farms and cooperatives, new forms of business such as leisure agriculture and rural e-commerce and new vehicles such as agricultural industry parks, sci-tech parks and innovation parks, thus increasing credit support for industrial development in rural areas.

III.4 The banking sector should strengthen risk management and reinforce firewall against risks

Banking is a crucial part of a country's financial system. Strengthening risk management and reinforcing firewall against risks are also the groundwork for defusing risks in the real economy and financial system. At present, the world economy and finance face risks from the COVID-19 resurgence and the Russia-Ukraine conflict. The banking sector, not immune to such shocks, should take quick actions to reinforce the firewall against risks and blaster economic growth.

1. The global banking sector is actively coping with the downward pressure on asset quality

Economic growth has been dragged down by COVID-19 and inflation in 2022, posing challenges to the steady operation and asset quality management in the banking sector. The Russia-Ukraine conflict has exacerbated the global imbalance between supply and demand. In economies hit hard by the conflict, the banking-sector asset quality is at a higher risk. There is downward pressure on the quality of global banking assets. Major US banks increase provisions and may tighten credit criteria to reduce operating risk. Banks in the UK, France, Italy and Australia take a variety of actions to control asset quality risk, including sorting out risk exposures to the Russia-Ukraine conflict, adjusting credit policies, strengthening pre-lending review and post-lending management and systematically self-examining the group-level risk control framework.

2. China's banking asset quality has improved significantly, but the potential risks in key areas are still worth noting

With China's economy recovering steadily, market players have generally restored their ability to pay. **The quality of banking assets has significantly improved.**

The NPL ratio moves steadily lower, the expansion of NPLs slowing markedly. 2022 sees improvements in NPLs. The NPL ratio was 1.69% at the end of Q1. The growth of outstanding NPLs slowed down to only 5.4% YoY in 2021, the lowest in a decade. **The proportion of special mention loans decreased, marking a slower pace of asset deterioration.** The average proportion of special mention loans of listed banks was 2.19% in 2021, representing a YoY decrease of 0.12 percentage point, and the average migration rate was 33.9%, representing a YoY decrease of 1.03 percentage points. The migration from special mention loans to sub-standard loans slowed down, showing a lower risk of potential non-performing.

The quality of banking assets, though improved on the whole, is structurally divergent. From the product perspective, COVID-19 shocks have an uneven impact on the asset quality of corporate loans and personal loans. From the geographical perspective, the six major geographical areas of China show even greater disparities in banking asset quality. From the perspective of industry, there are significant differences among different industries. Thanks to economic recovery, financial support and policy support including tax and fee reduction, the asset quality in industries directly affected by the pandemic has improved. The credit policy for real estate development has tightened, with the balance of related NPLs on the rise and the quality of assets on the decline. From the institutional perspective, the asset quality of large and medium-sized banks has steadily improved, while some of the city commercial banks and rural commercial banks should be watched.

To properly manage the risk of asset quality, the banking sector has continuously strengthened its efforts to dispose of non-performing assets. With support from new policies including bulk transfer of loans, the banking sector disposed of RMB3.13 trillion of non-performing assets in 2021, a new record high. As policymakers are broadening the channels for NPL disposal, banks are also looking for new paths to diversify the toolkit for risky assets disposal. On the one hand, digital transformation has become an effective approach to boosting the disposal efficiency. On the other hand, banks are exploring investment banking-like ways of special asset disposal, thus mitigating the risk in existing bad debts.

At present, factors beyond expectation have not subsided, and the banking sector faces challenges to prevent and control risks in key fields. Shanghai, Beijing, Shenzhen and other central cities have taken a heavy hit from COVID-19 outbreaks in 2022. The economy is battered and potential credit risks will likely erupt. The enterprises sensitive to price hike of energy and other commodities may be financially strained, posing higher potential risks. In addition, Chinese banks operating overseas should enhance their resilience to volatile asset quality.

3. Suggestions on keeping asset quality stable in China's banking sector

First, banks should pay close attention to industries and customers vulnerable to risk factors beyond expectation, keep track of their potential risks and strengthen pre-lending examination and post-lending management. The banking sector should closely monitor the latest developments in industry policies and businesses in the light of changes in the external environment, analyze the operating and financial conditions of existing customers and conduct new business with higher-quality customers at controlled risks. **Second, banks should strengthen the ability to prevent credit risks in a forward-looking manner and ensure preparedness according to risk exposures.** Adequate provisions should be set aside for credit risk losses in a timely manner, and expectations should be quickly adjusted in the face of possible external shocks, so as to boost prudence of operation and serve the real economy more effectively. **Third, banks should effectively use market-oriented disposal channels to reduce non-performing assets.** Banks should flexibly adjust the disposal philosophy to explore ways to integrate the value enhancement and disposal of risk assets in areas with better business foundation. The conventional and novel disposal methods should be combined to attract investors through online asset marketing, auction-based transfer, etc. to enhance the marketability of non-performing assets.

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