KPMG

Mainland China Banking Survey 2020

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CONTENTS

Foreword

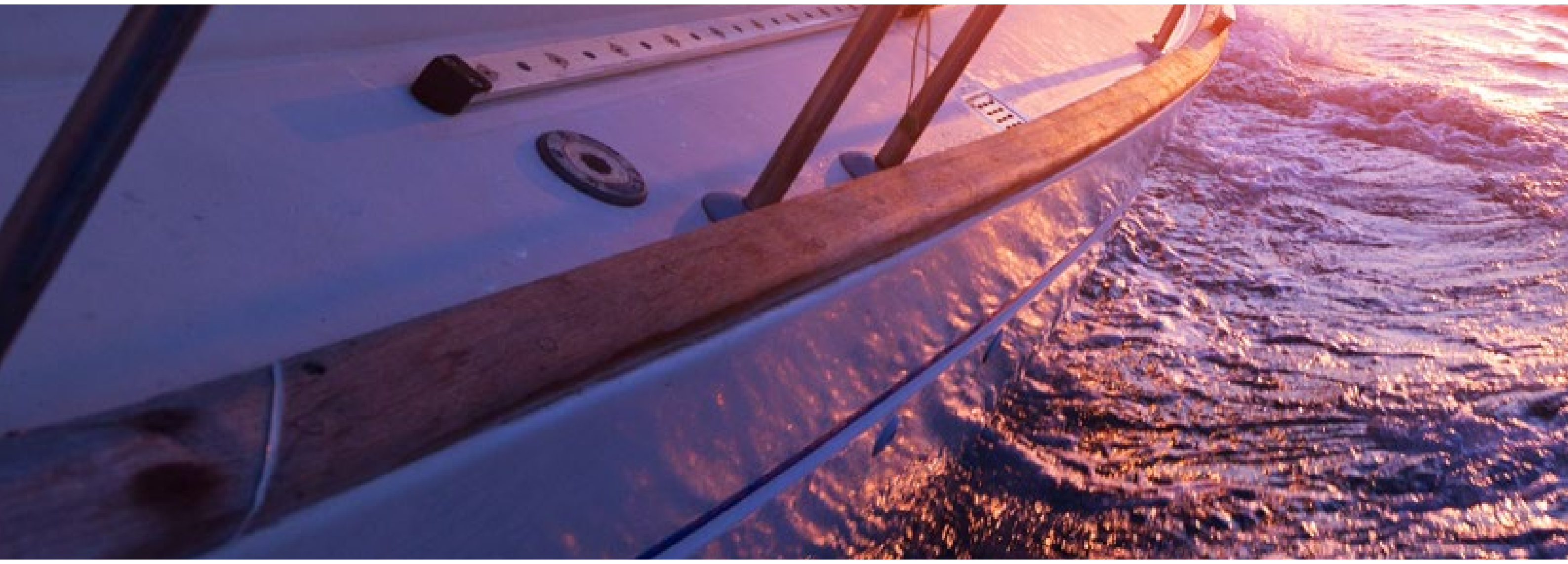
Simon Gleave

Regional Head of Financial Services, KPMG Asia Pacific

The COVID-19 outbreak in 2020 has had a far-reaching impact on the banking industry; and as assets and liabilities expand, the uncertainty and complexity of the global economy have cast a shadow over the industry's development. On a more positive note, the pandemic has accelerated the industry's digitalisation, as traditional offline banking institutions around the world quickly move online in the face of the pandemic. Customers are eager to use their mobile devices to embrace the many conveniences brought by online operations. Meanwhile, traditional financial institutions are working alongside tech giants to reinforce their technological capabilities and explore their roles and positions in the emerging financial ecosystem.

As this wave of digitalisation takes hold, China's banking industry should not only focus on breaking down its current limitations, but also aim to play a more significant role in assisting in the digitalisation of the country's market economy. In addition to the traditional method of "creating new sources of income and reducing costs," the banking industry in China should also aim to effectively control financial risks and encourage a rapid and strong rebound of the national economy.

In this report, we will share our insights on six major themes that are shaping the post-pandemic banking industry, and we will provide some analysis of the industry from the perspective of regulatory changes and banking digitalisation. We sincerely hope that this report gives you a clearer picture of how China's banking industry is faring now.



Thomas Chan

Head of Financial Services Assurance, KPMG China

The impact of the COVID-19 pandemic is being felt in every aspect of people's lives, and the economy has been hit hard. Faced with an uncertain economy and increasing financial risks, we need to deploy strategies to ensure the stability of financial institutions and the market as a whole.

Thanks to the rising trend of financial globalisation in recent years, financial institutions that engage in different lines of business are becoming increasingly integrated, blurring the boundaries of various businesses. This trend has given rise to financial risks that span different institutions, sectors, markets and even regulatory frameworks; and these risks have put banks' centralised risk control practices to the test. In China in particular, the financial industry has been confronted with the challenge of controlling the risks of consolidated subsidiaries ("consolidated risks") in a centralised manner. The China Banking and Insurance Regulatory Commission (CBIRC) has issued regulations and guidelines in this regard and is conducting special on-going inspections of large financial groups in order to assess how they manage consolidated risks against eight criteria. Against this backdrop, financial groups need to think about how to achieve centralised risk management and promote business collaboration within their groups.

As a professional services firm that has been serving the industry for decades, KPMG has taken the initiative to address these issues. To this end, we will focus our discussion on financial risk response, liquidity, comprehensive credit risk control, and digital transformation as we explore opportunities and challenges the industry might encounter in the future.

Sam Shi

Head of Banking, KPMG China

The COVID-19 outbreak in 2020 has made the global economy more complex and presented difficulties for the traditional banking industry. Despite these challenges, China's banking industry remained resilient and even made progress in its digital transformation journey during the year. In this report, we put forward new insights, approaches and solutions for banking transformation in view of the stricter regulatory environment from the perspectives of risk control, tax treatment, internal staff structure and organisational structure.

One noteworthy trend during the past year has been the effort made by traditional financial institutions to develop fintech. They have set up special innovation funds, opened fintech subsidiaries and formed cross-industry strategic partnerships to experiment with various approaches to fintech innovation. Banking fintech and the Internet are both developing at an unprecedented speed, and they are having a revolutionary impact on the operations of the traditional banking industry. On the other hand, as regulatory scrutiny increases, the industry is trying to figure out how to accelerate its development while also effectively controlling risks, and how to harness the power of cutting-edge technologies to achieve digital transformation. In this report, we analyse trends in the industry's digital transformation based on our visits to leading fintech enterprises in China, and we draw insights from in-depth research into how technologies such as big data, artificial intelligence (AI), and cloud computing have been applied in the industry. We also provide banking clients with systematic strategies and services based on new service models, development strategies, technological changes and risk control solutions in order to help them seize opportunities, meet the challenges posed by fintech-driven digital transformation and succeed during challenging times.

01 Overview

I. Steady growth and smooth operations

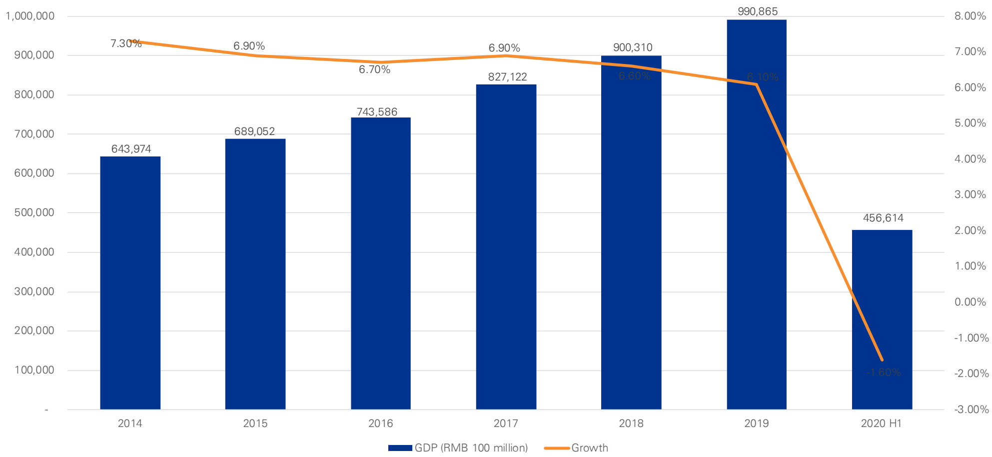
The year 2019 marked the 70th anniversary of the founding of the People's Republic of China, and it was a critical year for the country's efforts to build a moderately prosperous society and achieve the goal set for the first 100 years of development. China's financial industry has stayed committed to the course of market-oriented reform to ensure continuous and robust economic development despite the changing environment within and outside of China. In 2019, China's gross domestic product (GDP) reached a new high of over RMB 99 trillion and notched an annual growth rate of 6.1%, and national income grew at the same pace as economic growth.

However, this growth trend was halted in 2020 as the COVID-19 outbreak disrupted the global economy and hit global trading and investment activities hard. The external uncertainties that resulted highlighted the risks and challenges faced by banks. To combat the pandemic, China took quick and vigorous control measures, and the country's strategy for battling the pandemic was successful. China's GDP reached RMB 45.66 trillion in the first half of 2020, representing a year-on-year (YOY) decrease of merely 1.6%. Despite a global recession, the country's economy has maintained a steady pace during the year as shown by macro-economic indicators.

The year 2020 marks the achievement of the country's goal of building a moderately prosperous society, the final year of the "13th Five-Year Plan," and an important year in the country's campaign to prevent and mitigate financial risks. In the face of the complex environment within and outside China following the COVID-19 pandemic, the banking industry is seeking ways to improve financial services in respect of stability on "six fronts" and in respect of security in "six areas" [Translator's note: The "fronts" and "areas" reflect government priorities such as safeguarding employment and livelihoods, and the development of market entities, among other key issues]. The industry is also striving to support the stable development of other economic sectors.

Overall, China's banking industry is running smoothly, and risks are under control. Going forward, the industry is expected to develop robustly, optimise business structures, and achieve normal operating and regulatory indicators.

Figure 1.1 GDP and growth rates



Sources: National Bureau of Statistics of China's (NBS) website

Assets and liabilities gradually expanded as part of a generally healthy operating trend

In 2019, financial institutions stepped up their reform and transformation efforts, and their assets and liabilities gradually expanded as part of a generally healthy operating trend. According to the 2020 China Banking Sector Development Report released by the China Banking Association, the industry accelerated its reform and transformation efforts in 2019 and made considerable progress in preventing and mitigating financial risks, enhancing the quality and efficiency of services provided to other economic sectors, and achieving higher-quality growth. Assets and liabilities gradually expanded; net interest margins resumed an upward trend; and both asset quality and capital adequacy ratios remained stable. However, the industry notched a higher growth rate in 2020.

Table 1.1 Total assets and liabilities of Chinese commercial banks

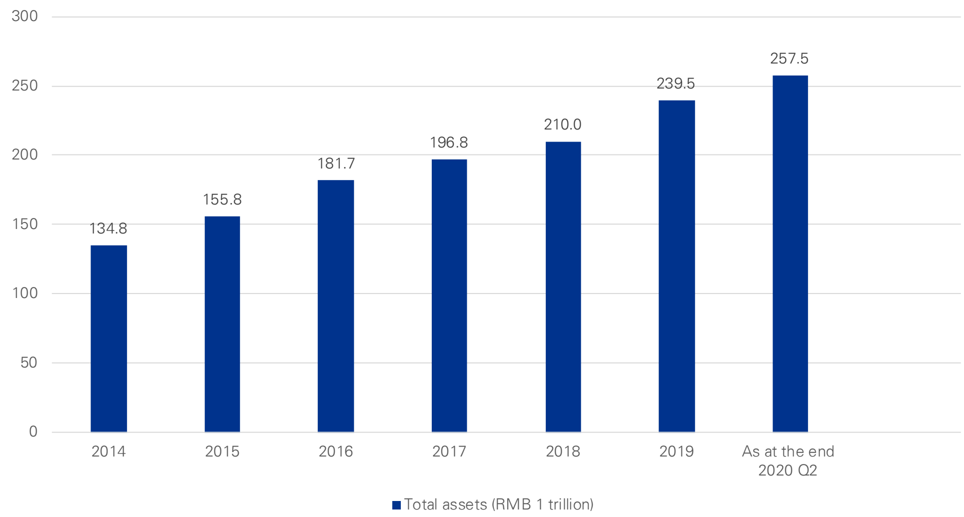
RMB trillion	2014		2015		2016		2017		2018		2019		2020 Q2	
	Amount	Growth	Amount	Growth	Amount	Growth	Amount	Growth	Amount	Growth	Amount	Growth	Amount	Growth
Total assets	134.8	13.50%	155.8	15.60%	181.7	16.60%	196.8	8.30%	210.0	6.70%	239.5	14.06%	257.5	7.53%
Total liabilities	125.1	12.90%	144.3	15.30%	168.6	16.90%	182.1	8.00%	193.5	6.28%	220.1	8.66%	237.3	7.82%

Sources: Table of Financial Institutions' Assets and Liabilities, CBIRC, 2014-19 and 2020 Q2

The total assets of financial institutions continued to expand in 2019. At the end of 2019, commercial banks' total assets reached RMB 239.5 trillion, representing a YOY increase of RMB 29.5 trillion or 14.06%, which was 7.36 percentage points higher than the growth rate in 2018. At the end of the first half of 2020, commercial banks' total assets amounted to RMB 257.5 trillion, representing an increase of 7.53% compared to the end of 2019.

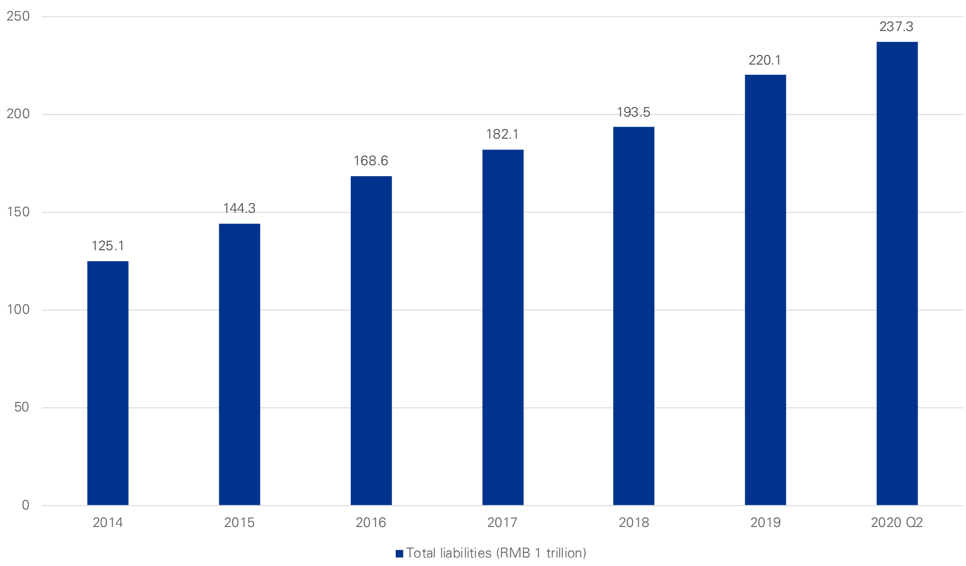
Commercial banks' total liabilities at the end of 2019 stood at RMB 220.1 trillion, representing a YOY increase of RMB 26.6 trillion or 13.73%, which was 7.45 percentage points higher than the growth rate in 2018. At the end of the first half of 2020, commercial banks' total liabilities amounted to RMB 237.3 trillion, representing an increase of 7.82% compared to the end of 2019.

Figure 1.2 Total assets



Sources: Table of Financial Institutions' Assets and Liabilities, CBIRC, 2014-19 and 2020 Q2

Figure 1.3 Total liabilities

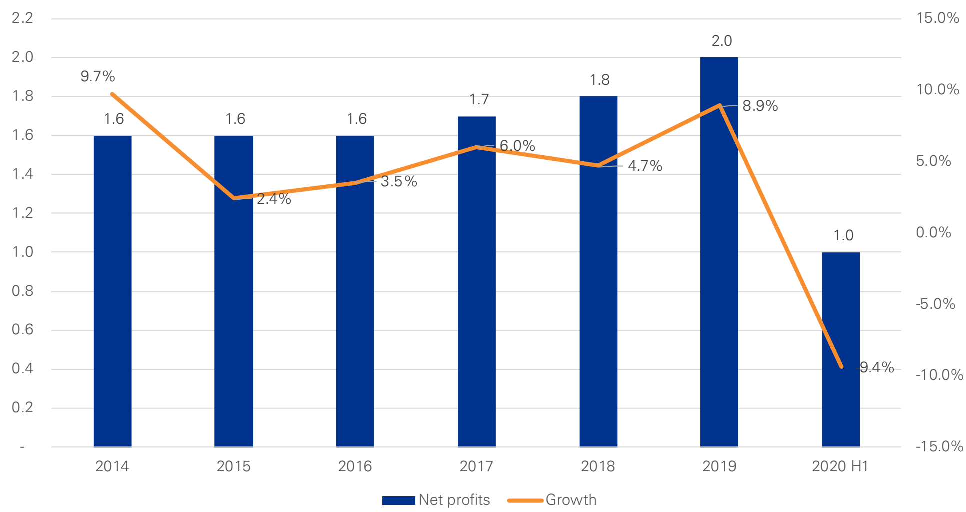


Sources: Table of Financial Institutions' Assets and Liabilities, CBIRC, 2014-19 and 2020 Q2

Net profit has been declining since the first half of 2020

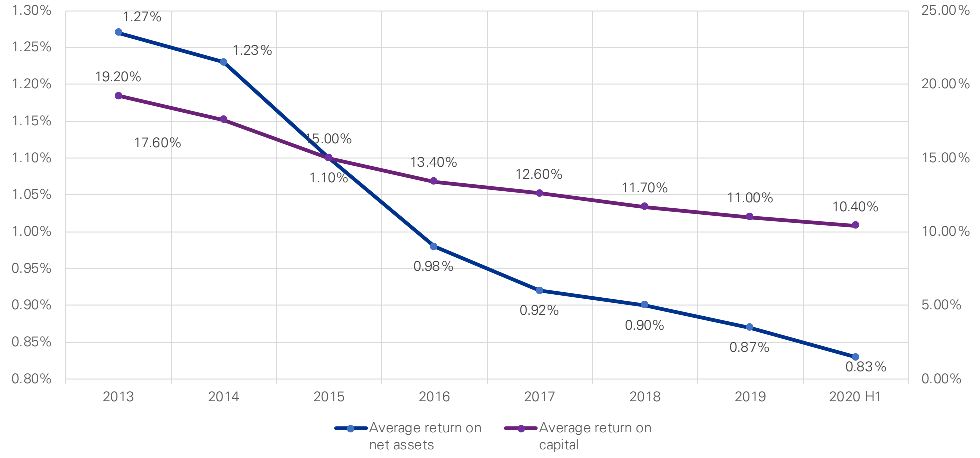
In 2019, the net profit of commercial banks totalled RMB 2.0 trillion, a YOY increase of RMB 0.2 trillion or 8.9%. The average return on net assets for commercial banks was 0.87%, a decrease of 0.03 percentage points compared to 2018. The average return on capital for commercial banks fell by 0.7 percentage points YOY to 11.00%. As a result of the pandemic, net profit for the first half of 2020 declined by 9.4% YOY to RMB 1.0 trillion. In the first half of 2020, the average return on net assets for commercial banks was 0.83%, a decrease of 0.04 percentage points compared to the end of 2019. The average return on capital fell to 10.40%, down 0.60 percentage points compared to the end of 2019.

Figure 1.4 Net profit and growth rate



Sources: Table of Major Regulatory Indicators for Commercial Banks, CBIRC, 2014-2019 and 2020 Q2

Figure 1.5 Average return on net assets and average return on capital



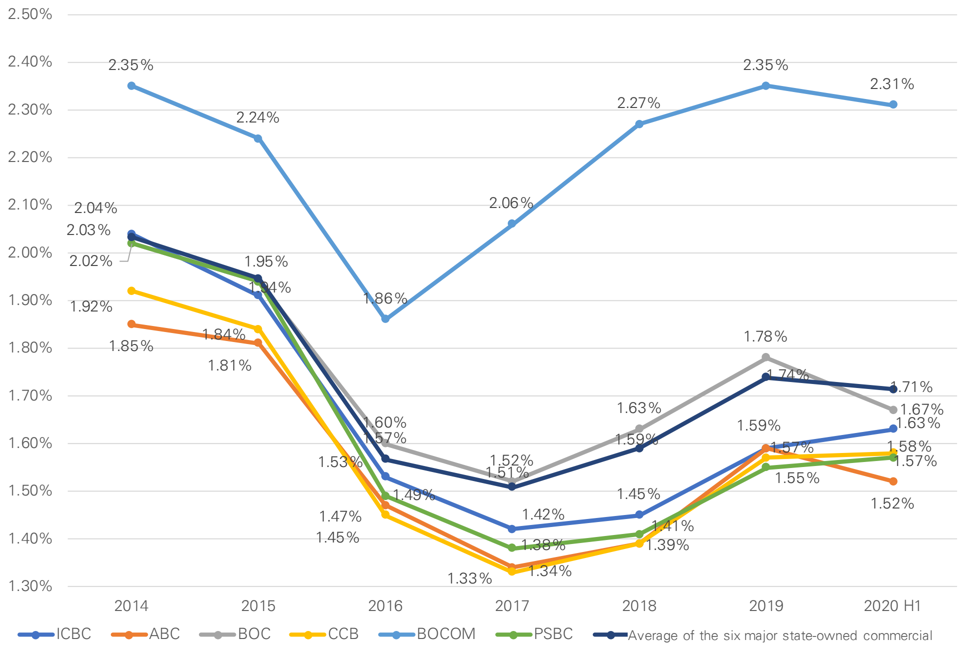
Sources: Table of Major Regulatory Indicators for Commercial Banks, CBIRC, 2014-2019 and Q2 of 2020

Net interest margins have continued to decline as the cost of deposits rises

As show in Figure 1.6, large commercial banks' cost of interest-bearing deposits increased in 2019, and the increase in the six state-owned commercial banks' cost of interest-bearing deposits ranged from 8 to 20 basis points. The cost of interest-bearing deposits for Agricultural Bank of China (ABC) rose by 20 basis points, the highest among all banks. In contrast, the increase of 8 basis points in the cost of interest-bearing deposits for Bank of Communications (BOCOM) was the lowest. The average bank deposit yield of the six state-owned commercial banks was 1.74%, up 15 basis points compared to 2018. In the first half of 2020, the six state-owned commercial banks' average cost of interest-bearing deposits decreased slightly by 3 basis points compared to 2019.

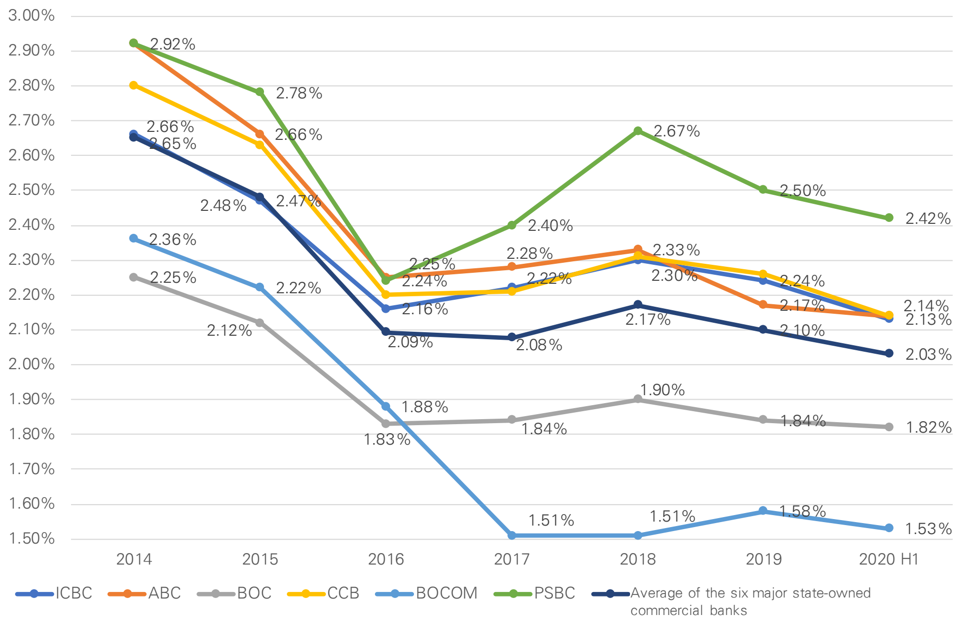
As shown in Figure 1.7, the net interest margins of China's large commercial banks have experienced a general downward trend in recent years. In 2019, BOCOM recorded a YOY increase of 7 basis points in its interest margin, which rose to 1.58%. On the other hand, the net interest margins of Industrial and Commercial Bank of China (ICBC), Agricultural Bank of China (ABC), Bank of China (BOC), China Construction Bank (CCB), and Postal Savings Bank of China (PSBC) decreased by amounts ranging from 5 to 17 basis points. The average net interest margin of the six state-owned commercial banks was 2.10%, down 7 basis points compared to 2018. In the first half of 2020, the six state-owned commercial banks' net interest margins notched declines ranging from 2 to 12 basis points or 7 basis points on average compared to 2019.

Figure 1.6 Deposit interest rates of China's six major state-owned commercial banks



Sources: A-share annual reports in the investor relations columns of the websites of China's six major state-owned commercial banks

Figure 1.7 Net interest margins of China's six major state-owned commercial banks



Sources: A-share annual reports in the investor relations columns of the websites of China's six major state-owned commercial banks

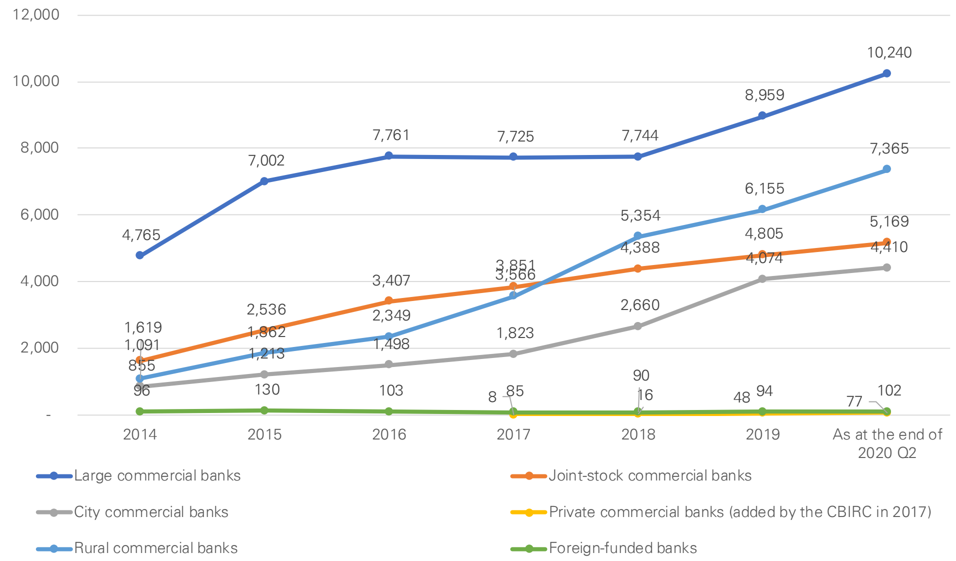
Non-performing loans rose, but overall credit risk is under control

In 2019 and the first half of 2020, commercial banks' non-performing credit assets continued to increase. At the end of 2019, the balance of commercial banks' non-performing loans (NPLs) stood at RMB 2.41 trillion, up RMB 0.39 trillion or 19.2% from the end of 2018, which represented a growth rate that was 0.45 percentage points higher than in the previous year. The average NPL ratio of commercial banks was 1.86%, down 0.03 percentage points from the end of 2018. The NPL ratios for all other banks, except for city commercial banks and private banks, declined during the year. In 2019, among commercial banks, the NPL ratio of large commercial banks fell by 0.03 percentage points to 1.38%; the NPL ratio of joint stock commercial banks fell by 0.07 percentage points to 1.64%; the NPL ratio of rural commercial banks fell by 0.06 percentage points to 3.90%; the NPL ratio of foreign banks fell by 0.02 percentage points to 0.67%; and city commercial banks' and private banks' NPL ratios rose by 0.53 percentage points and 0.47 percentage points to 2.32% and 1.00% respectively. In the first half of 2020, as enterprises faced hardships brought by the pandemic, commercial banks' NPL balances expanded to RMB 2.74 trillion, up RMB 0.33 trillion from the end of 2019. The average NPL ratio of commercial banks was 1.94%, up 0.08 percentage points from the end of 2019. The NPL ratio of rural commercial banks rose by 0.32 percentage points from the end of 2019 to 4.22%, the highest among all commercial banks. The NPL ratio of private banks rose by 0.31 percentage points to 1.31%, and the NPL ratios of large commercial banks and foreign banks rose by between 0.02 and 0.07 percentage points.

At the end of 2019, commercial banks' various loan balances totalled RMB 129.63 trillion, up RMB 19.1 trillion or 17.3% from the end of 2018. At the end of the first half of 2020, the balances of commercial banks' various loans totalled RMB 141.02 trillion, up RMB 11.4 trillion from the end of 2019.

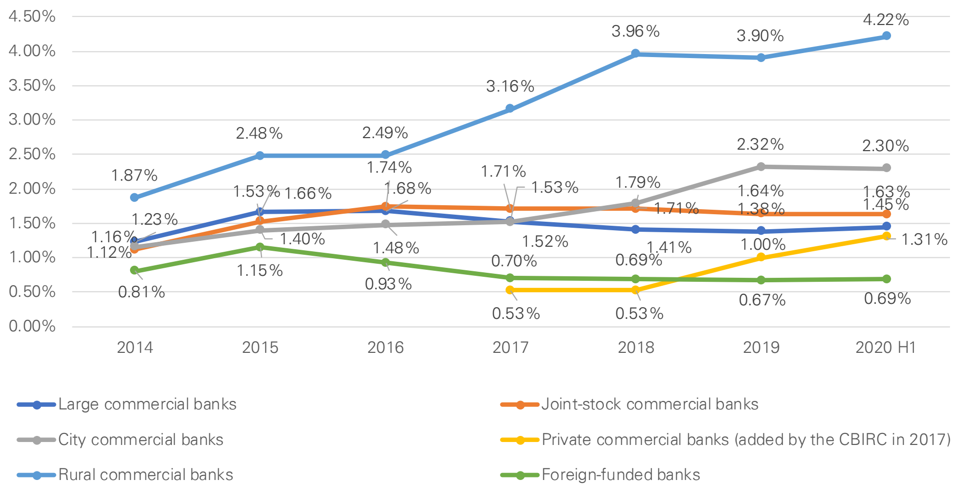
As shown in Figure 1.10 and Figure 1.11, the loan provision ratio of commercial banks continued to go up while their provision coverage ratio fell. As at the end of 2019, the loan provision ratio of commercial banks increased by 0.1 percentage points to 3.50%, and provision coverage declined by 0.2 percentage points to 186.1%. In the first half of 2020, the loan provision ratio of commercial banks grew by 0.04 percentage points from the end of 2019 to 3.54%, and their provision coverage declined by 3.7 percentage points to 182.4%.

Figure 1.8 Balance of non-performing loans of commercial banks



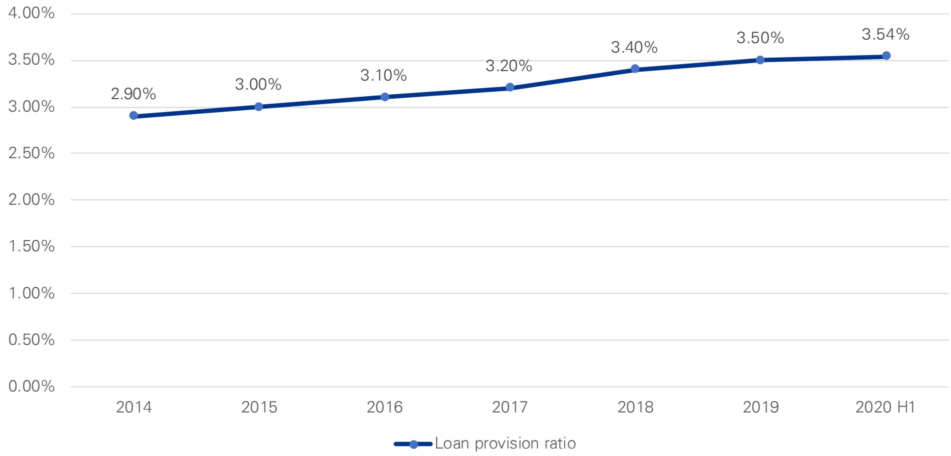
Sources: Table of Major Regulatory Indicators for Commercial Banks and Table of Institution Type-Specific Major Commercial Bank Indicators, CBIRC, 2014-2019 and 2020 Q2

Figure 1.9 Non-performing loan ratios of commercial banks



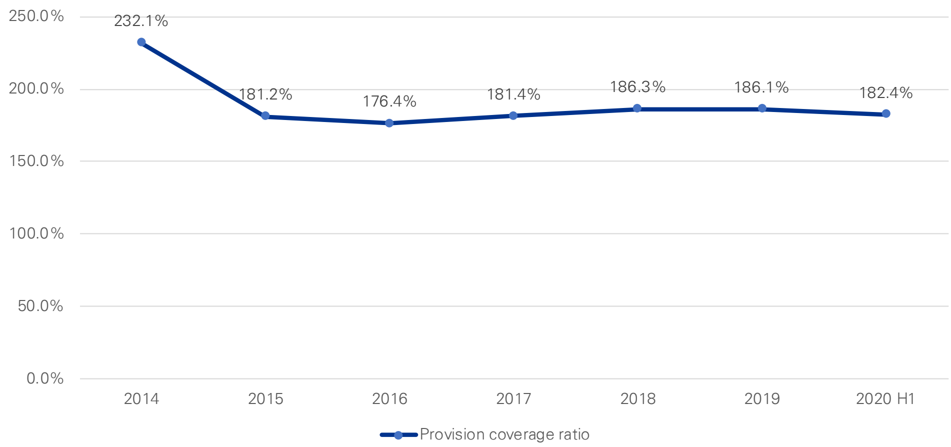
Sources: Table of Major Regulatory Indicators for Commercial Banks and Table of Institution Type-Specific Major Commercial Bank Indicators, CBIRC, 2014-2019 and 2020 Q2

Figure 1.10 Loan provision ratio of commercial banks



Sources: Table of Major Regulatory Indicators for Commercial Banks and Table of Institution Type-Specific Major Commercial Bank Indicators, CBIRC, 2014-2019 and 2020 Q2

Figure 1.11 Provision coverage of commercial banks



Sources: Table of Major Regulatory Indicators for Commercial Banks and Table of Institution Type-Specific Major Commercial Bank Indicators, CBIRC, 2014-2019 and 2020 Q2

Stable liquidity and adequate risk mitigation

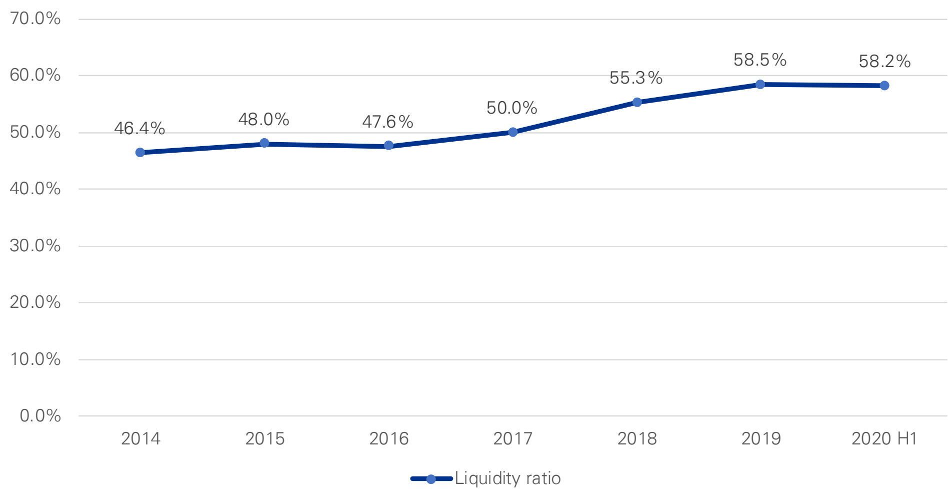
Liquidity risk has become a major risk for China's banking industry in light of recent developments in fintech and the financial market, as well as interest rate liberalisation reform. Against the backdrop of stricter regulation and market oversight, commercial banks enhanced their liquidity risk management in 2019. At the end of 2019, the liquidity ratio of commercial banks had grown by 3.2 percentage points from the end of 2018 to 58.5%. In the first half of 2020, the liquidity ratio of commercial banks decreased slightly to 58.2%. Commercial banks are generally maintaining a high level of liquidity, indicating their overall control of liquidity risk and robust operations.

From early 2019 to the first half of 2020, the monthly weighted average interest rate for interbank lending trended downward twice before rising again. The monthly weighted average interest rate for interbank lending hit a low of 1.7% in June 2019; and then in August 2019, the rate surged to a high of 2.7%. In the first half of 2020, the monthly weighted average interest rate for interbank lending reached a low of 1.1% in April and then rebounded to 1.9% in June 2020. Generally, the monthly weighted average interest rate for interbank lending was lower in 2020 than in 2019.

The liquidity coverage ratio represents the ratio of a bank's high-quality liquid assets to net cash outflows over the next 30-day period. This measurement is designed to ensure that commercial banks maintain adequate and readily realisable high-quality liquid assets under severe predefined liquidity stress scenarios, and it measures their ability to meet liquidity requirements over the next 30 days by realising these assets. According to regulatory requirements, commercial banks are required to maintain a liquidity coverage ratio of over 100%.

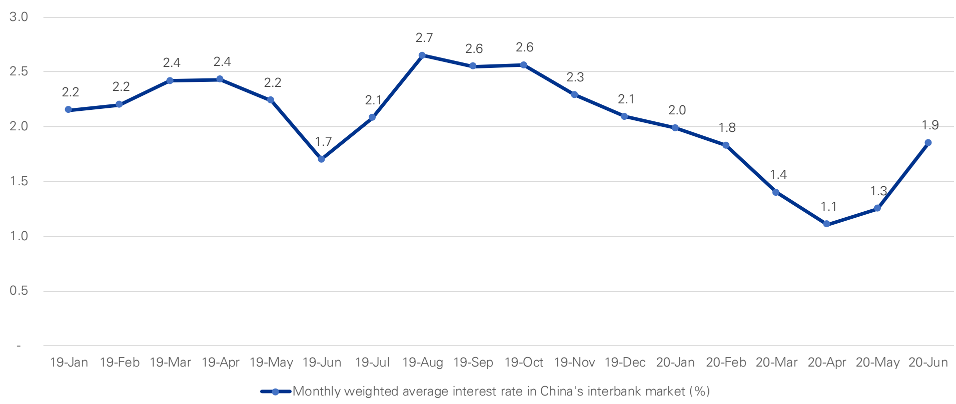
As shown in Figure 1.14, during the period from early 2019 to the first half of 2020, the liquidity coverage ratio of commercial banks was generally volatile. At the end of 2019, the liquidity coverage ratio of commercial banks was 146.6%, up 9.3 percentage points from the end of the previous quarter. This increase reflects the adjustments made by commercial banks to their business models in response to stricter regulation and their efforts to allocate assets in a more reasonable way to control liquidity risk and ensure orderly and stable business operations. In the first half of 2020, the liquidity coverage ratio of commercial banks reached 142.5%.

Figure 1.12 Liquidity ratio of commercial banks



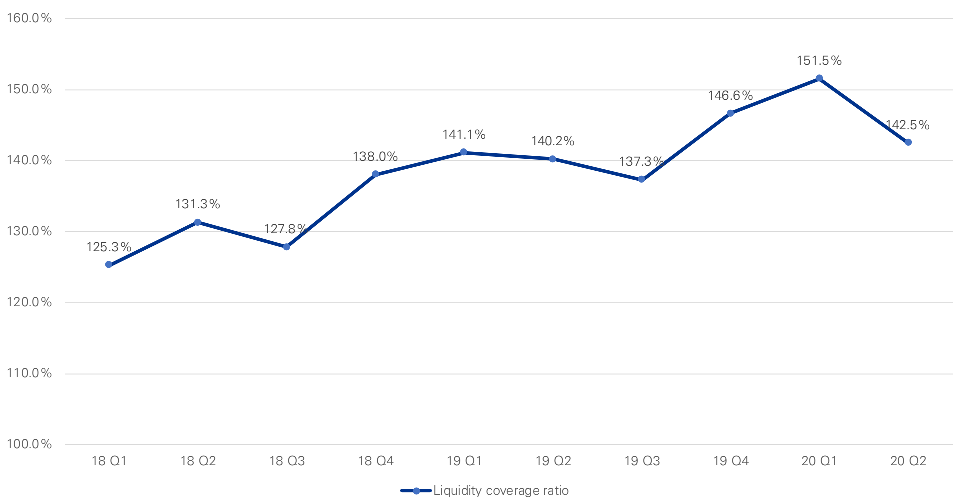
Sources: Table of Major Regulatory Indicators for Commercial Banks and Table of Institution Type-Specific Major Commercial Bank Indicators, CBIRC, 2014-2019 and 2020 Q2

Figure 1.13 Monthly weighted average interest rate in China's interbank market



Sources: Interbank Lending Statistics from the Statistics and Analysis Department of the PBOC

Figure 1.14 Liquidity coverage of commercial banks



Sources: Table of Major Regulatory Indicators for Commercial Banks, CBIRC, 2014-2019 and 2020 Q2

II. Innovative and diversified development in compliance with regulatory requirements

Banks are allowed to open wealth management (WM) subsidiaries under enhanced administrative measures

In 2019, regulators began allowing banks to establish WM subsidiaries. In 2019, nine banks opened WM subsidiaries, including six state-owned commercial banks, China Everbright Bank, China Merchants Bank, and Industrial Bank. On 3 June 2019, CCB Wealth Management Co., Ltd., was formally established, becoming China's first wealth management subsidiary affiliated with a commercial bank. On 2 December 2019, the CBIRC issued the Measures for the Management of Net Capital of Wealth Management Subsidiaries of Commercial Banks (for Trial Implementation), which helps WM subsidiaries operate under prudential principles and match business development with their management capabilities to safeguard investors' lawful rights.

Considering the impact of the COVID-19 pandemic on financial institutions' efforts to meet regulatory requirements for WM subsidiaries, and with the State Council's approval, the People's Bank of China (PBOC), together with the National Development and Reform Commission (NDRC), the Ministry of Finance (MOF), the CBIRC, the China Securities Regulatory Commission (CSRC), and the State Administration of Foreign Exchange, decided on 31 July 2020 to postpone the transitional period under the Guiding Opinions on Regulating Asset Management Business of Financial Institutions (Yin Fa [2018] No. 106) to the end of 2021. This postponement facilitates banks' efforts to transform their WM business and will allow them to better serve other economic sectors.

Relief measures for micro, small & medium enterprises (MSMEs) that align with the government's epidemic control policy

To implement the decision of the Party's Central Committee and the State Council on COVID-19 prevention, control and response, and to promote the orderly resumption of economic activities and provide targeted and effective financial services, the CBIRC, PBOC, NDRC, Ministry of Industry and Information Technology, and MOF jointly issued the Notice on Allowing MSMEs to Temporarily Defer Repayment of Principal and Interest on Loans on 1 March 2020 to extend loans and allow eligible MSMEs that may be experiencing temporary liquidity shortages to defer repayment of principal and interest. Banking institutions have proactively worked to accommodate enterprises' deferrals of principal and interest payments by opening various offline and online channels (e.g. Internet banking, mobile banking and telephone banking channels), providing prompt feedback and follow-up, and enhancing the availability of credit facilities to micro and small enterprises to reduce their overall funding costs.

Stricter banking regulation to promote the quality development of financial institutions

Banking regulation has been improving since 2019. On 26 November 2019, the PBOC and CBIRC solicited opinions from the public on the Systemically Important Bank Assessment Measures (Draft Exposure), which will establish basic rules for assessing systemically important banks and conducting comprehensive and prudential management to prevent banks from becoming "too big to fail." On 29 November, the CBIRC introduced the Measures on Supervision and Evaluation of Corporate Governance of Banks and Insurance Organisations (for Trial Implementation), which provides for rating downgrades if the corporate governance of an organisation has major defects or is malfunctioning for the first time. These policies are key regulatory initiatives that aim to prevent systemic financial risks and promote the quality development of China's financial markets. On 30 September, the PBOC and CBIRC released the Total Loss-absorbing Capacity Rules for China's Global Systemically Important Banks (Draft Exposure); and on 16 October 2020, the PBOC amended the Commercial Banking Law of the People's Republic of China. Both of these actions solicited opinions from the public on preventing systemic risks, improving banks' mechanisms for addressing risks, and strengthening the overall rule of financial law to support the steady development of the financial sector.

Diversified channels to replenish capital

In 2019, eight banks were listed in the A-share market. The CBIRC and CSRC issued the Guidelines on Issuance of Preference Shares by Commercial Banks for Supplementation of Tier 1 Capital (Revised) to facilitate banks' issuance of preference shares, especially for non-listed banks. In addition, to optimise the loss-absorption mechanism of commercial banks' capital instruments, the CBIRC issued the Guiding Opinions on Capital Instrument Innovations by Commercial Banks (Revised). These opinions encourage the issuance of capital instruments and capital instrument innovations, promote market-oriented pricing for these instruments, and provide support for the ability of commercial banks to replenish their capital through various channels, with the ultimate goal of enhancing the ability of banks to combat risks and serve other economic sectors.

Deployment of "multiple pillars" for fintech

In August 2019, the Fintech Development Plan (2019-2021) was released. The plan sets out guidelines, fundamental principles, development goals, key tasks and safeguard measures for fintech for the coming 3 years. According to the plan, by the end of 2021, China will have established and improved "multiple pillars" for fintech.

III. Leading international bank rankings and strong competitiveness

According to the Top 1,000 World Banks 2020 list released by The Banker on 1 July 2020, China's largest banks have increased their lead over American banks. In terms of Tier 1 capital, ICBC remained on top, followed by CCB in second, ABC in third and BOC in fourth. Among the 10 banks with the highest pre-tax profits, Chinese banks notched five entries with ICBC in first, CCB in second, ABC in fourth, BOC in fifth and CMB in 10th. The first ranking in 1970 did not include any Chinese banks, but with the advent of China's opening-up policy in 1979, Chinese banks started to become more prominent. In 2020, China had 143 banks in the Top 1,000, second only to the US.

IV. Making the most out of the COVID-19 crisis

In 2020, the COVID-19 pandemic has had a severe impact on economies around the world, and it is dragging the global economy into a recession. In response, China increased its counter-cyclical adjustments using a combination of monetary, fiscal, and industrial policies. On 31 July 2020, the China Banking Association released the 2020 China Banking Sector Development Report in Beijing, with the theme of "banking transformation during the COVID-19 pandemic." As a result of the implementation of additional financial risk mitigation measures and financial reforms, the banking sector remained steady during the year.

Of course, a crisis can be transformed into an opportunity, and a new reality can emerge from a changing landscape. The banking industry is proactively searching for ways to provide diversified and multi-channel financial services that leverage the advanced technologies of the digital era. As a result of the pandemic, banking institutions are accelerating supply-side reform, and they have hit the "fast forward" button in their efforts to embrace the new wave of digital transformation, ushering in a new stage of digital transformation and quality development for the banking sector. After the pandemic, the banking industry needs to seize the opportunities offered by digital transformation and quality development under the new reality. Some companies have already made significant achievements in this regard. For example, the China Banking Association and 100 Chinese banks, including MYbank, initiated the Non-contact Micro-Loan Plan, which managed to serve around 10 million micro and small enterprises in less than 2 months. As at 30 July 2020, the plan had granted a total of RMB 737.914 million in loans to more than 17.6742 million micro and small enterprises; and its total loan balance amounted to RMB 201.005 million (source: the 2020 China Banking Sector Development Report).

Digitalisation is the way of the future, and we believe that new electronic payment mechanisms, digital currencies and non-contact payment platforms will soon be in full swing. In addition, future banks will pursue innovation and transform traditional and rigid products into something more personal. Banks are becoming more proficient in the way that they apply data in business operations, and they will soon be able to offer services that meet diversified customer demands under a wide range of scenarios.

02 Important topics

The current reality

- Six macro themes shaping the post-pandemic banking industry
- How small and medium-sized banks position and perceive risk control transformation
- Comprehensive credit risk management solutions that strengthen the foundation of banking risk control
- Using derivatives linked to LPRs to manage net interest margins
- Increasing revenue and reducing costs, and HR challenges during the pandemic
- Challenges in liquidity risk management during the pandemic
- Financial and tax guidelines to help banks combat COVID-19

Looking to the future

- Harnessing data talent to achieve digital transformation
- A vision for an intelligent, experience-oriented, omni-channel digital transformation for banks
- Comprehensive AI empowerment

Six macro themes shaping the post-pandemic banking industry

Author:
Judd Caplain
Global Head of Banking and Capital Markets, KPMG International

COVID-19 has dramatically reshaped the world in which we live, with tumultuous economic and financial effects running alongside the public health emergency. At the height of the outbreak, banks across the globe played, and continue to play, a fundamentally important role supporting businesses and families by administering government-backed loans, providing additional liquidity and rapidly installing forbearance measures.

In many ways trust in banks is at an all-time high, and they are being viewed by customers and businesses in a positive light. The key now is to retain those gains and build on them.

KPMG banking and capital markets professionals have been reflecting on — and widely discussing with banks — the nature of the disruption.

I. New distribution channels reconfiguring the landscape

As society becomes more cashless and digitisation accelerates, banks will need to evaluate their branch networks and ask themselves fundamental questions about what their physical outlets are actually for. Are they sales points or service centres? Core to the brand or nice to have? In a much more digital model, products and services may need to be reframed, allowing greater degrees of self-service, enhanced product functionality and fulfilment, and a new approach to selling and advertising to attract customers.

- **Our predictions:** 1. Branch networks will be slimmed down and undergo significant change; 2. Digital channel functionality will develop rapidly and at scale; 3. Call centres will be re-evaluated and repurposed; 4. Banks will introduce new integrated e-commerce suites to bring more small businesses online; 5. Cash may stage a partial recovery but is in a terminal decline.
- **Actions for banks to consider:** 1. Rapidly assess branch networks and call centres. A small window of time exists now for experimentation and review, before a new normal template begins to appear. Clearly defining the role of branches and contact centres is one of the critical questions facing banking in the new reality. 2. Accelerate digital infrastructure development. Programmes to extend and improve digital delivery — through customer facing digital channels and the associated functionality, core banking platforms, IT systems and the cloud — need to be accelerated and scaled beyond individual products or channels to become enterprise-wide. 3. Bolster data and analytics capabilities. With so much more data in circulation through the "digital default," it is essential to have the right data and analytics tools in place to leverage the information. Machine learning and AI capabilities will be needed to drive effective personalisation and customer engagement. Machine learning and AI capabilities will be needed to drive effective personalisation and customer engagement.

II. Harnessing the shift to a digital economy

As we accelerate to a global digitally connected economy, banks must operate across virtual and physical domains seamlessly. They will need to harness the potential of new electronic payment mechanisms, digital currencies and contactless payments as the use of cash rapidly declines. But as much as this creates opportunity, it also poses threats — with a generation of new technology-based service providers coming into the market, banks may need to devise strategies to prevent themselves from becoming disintermediated. They must find ways to remain relevant to their customers and create new use cases for payment revenue opportunities.

- **Our predictions:** 1. Banks will significantly increase their deals and partnership activity with agile new players in the payment space; 2. There will be increasing numbers of large scale alliances; 3. Fintechs and new players will continue to shake up the market; 4. There will be a race to launch a central bank digital currency (CBDC); 5. Operational resilience will be a key focus, and more non-core activities will be outsourced.
- **Actions for banks to consider:** 1. The pace of change is quickening — invest and forge partnerships. In the wake of COVID-19, the change that would have happened over the next 5 years may now take place in the next 24–36 months. Are you actively building capability and looking for partnership and acquisition opportunities in the rapidly evolving payments ecosystem? 2. Outside-in thinking and new skills will be needed. To keep pace, banks will need to innovate through the lens of changing lifestyles, evolving business processes and emerging smart technologies, rather than taking a traditional product approach. New skills will be needed in the organisation, with fintech and entrepreneurial mind-sets at a premium, and a "fail fast" culture may be needed to shorten time to market. 3. How will banks make money from payments in the future? With increased competition from new players and services, and historically low interest margins, profitability will be hard to come by in payments. How will you respond to this and what new revenue streams can you create in related or adjacent areas? 4. Data and platforms will be at the core of change. Increasingly, transaction data will connect with other information to support new digital service development. Software is traversing traditional sector or retail/wholesale payments divides and connecting "real economy" use cases with financial services. These are the new business models owned by Go-Jek, Klarna, PayPal and many others. Banks will need to compete through their data assets, which will likely result in material acquisitions of data capabilities in order for them to retain relevance in the digital economy.

III. Cost priorities reimagined, new operating models emerging

In an exceptionally low interest rate environment, operating expense will likely become an ever greater area of focus. Banks will need to find a way to decrease costs while also building capability to support growth. A focus will fall on leveraging technology to achieve both of these aims, through greater use of automation and AI. Simultaneously, banks can more aggressively evaluate their operations by moving to greater use of shared service utilities owned by consortiums or third parties, as well as managed services and outsourcing. Everything could be up for debate as banks look for the operating model of the future.

- **Our predictions:** 1. Shifts in cost and operating dynamics post-pandemic will drive bank cost bases up; 2. Banks will need to review every aspect of their operations — with branches and property being an obvious focus; 3. Service centres and call centres will change — but this is likely to push costs up; 4. Staff costs, productivity and remuneration packages will be reviewed; 5. The use of shared service utilities owned by consortiums could make a come-back; 6. Increased digital adoption; 7. External spending will go under the microscope.
- **Actions for banks to consider:** 1. Decisive action is needed — nothing should be off the table. With income set to be squeezed, bad debt provisions rising, and cost bases enlarged, small incremental measures will not be sufficient. COVID-19 has created an opportunity to re-engineer operations and processes — bold thinking is needed. Effective transformation is about identifying the right costs to reduce — not all or any costs. It is about cutting fat, not muscle. There must be absolute clarity about which activities and functions are essential for resilience. Efforts must create value, not destroy it. 3. Clarity and governance make as much difference as what a bank does. Achieving clarity around cost management, transformation execution, decision-making, accountability and governance creates as much value as issues of design and engineering (business & operating model, core systems, digital, cloud). Start by achieving this clarity — it can make perhaps 5–10% of the difference. Move on to design and engineering issues afterwards.

IV. New ways of working becoming the norm

COVID-19 has seen a cross-sector working from home "revolution" — including in banking. Going forward, banks should identify the optimal mix for the operating model and ensure they have sufficient infrastructure to facilitate long-term mass flexible working. In turn, this means that the purpose and use of corporate real estate will need to be re-evaluated. At the same time, the labour force is likely to become ever more automated, with resiliency paramount. Organisational culture and leadership, on-boarding, training, upskilling, and attracting new talent — together with tax implications due to reduced global mobility and higher levels of remote working — all need to be factored into a complex set of dynamics.

- **Our predictions:** 1. Working models will be changed permanently as corporate real estate is also reimagined; 2. Offshore service centre disruptions will lead to a changed approach; 3. Automation will be utilised more widely; 4. Leadership and management skills needed will shift; 5. Investing in the right support and training will be key.
- **Actions for banks to consider:** 1. Listen and reflect — don't rush back. Banks have a once-in-a-lifetime opportunity right now to review how they operate and think about the future. Listen to your staff and your customers. Don't waste the crisis. Think creatively and consider all options. 2. Leverage what this period has proven. COVID-19 has proven that working in a different way is possible — now, focus on how that can be continued sustainably. Challenge your own culture and thinking. There is a huge opportunity to decisively accelerate shifts that were already happening — workforce reshaping, increased automation, digitisation. Design for people and their ways of working, throughout their day and throughout their career. Enable experiences, with an ecosystem of tools and technologies working together. Shifts in technologies should consider the combined impact of features and integration. Now is also the time to ensure that policies supporting diversity and inclusion are high on the agenda. 3. Support your leaders to drive change. It will be crucial to invest in and support all your people. But your leaders are particularly critical because they are the ones who will need to drive and direct change. Think about how you can help them, what tools or training they need, so that they can truly support their teams and bring everyone on the journey.

V. Writing a whole new risk management playbook

If there is one thing that COVID-19 has taught us, it is that almost anything can happen. Banks will need to fundamentally re-evaluate their resiliency across the complete spectrum of risk — operational, liquidity, capital, market, and credit risk — to model for the next unforeseen event. As we enter a likely recessionary period, regulatory requirements could rise. How much capital should banks hold over and above regulatory mandates? Are their customer portfolios sufficiently diversified? Meanwhile, as banks increase the use of AI and digital technologies, are they cyber secure? New risk models and strategies need to be developed as well as processes and protocols to accompany them.

- **Our predictions:** 1. Banks' risk models will need to continue to be reviewed and recalibrated, while credit portfolios will need to be dynamically managed; 2. Data availability and quality will need to be improved across the Risk function and with related functions such as Finance; 3. Advanced data & analytics and AI will hold the keys to value; 4. Aspects of operational risk will remain under the microscope, and robust cyber security will be critical; 5. In a tough economic, trading and lending environment, growth and acquisition opportunities may present themselves to those banks with the strongest risk management regimes.
- **Actions for banks to consider:** 1. Invest in technology and data. Better data availability and quality, enhanced analytical capabilities informed by AI and machine learning, and faster reporting — these must be the hallmarks of a Risk function of the future. 2. Credit risk management must be at the forefront. In a potentially worsening economic environment, credit portfolios must be actively managed on a disaggregated basis. Banks must be able to understand where not only business sectors but individual corporate clients and personal customers are in their own post-COVID-19 journeys, what their cash flow and recovery projections are, and the risks they represent. Risk functions must be integrally connected with the operational and sales sides of the bank. 3. New models for operational risk and resiliency to cope with the unexpected. Banks proved their resiliency through the height of COVID-19 – and must be able to cope with whatever the future brings. With further lockdowns — on a local or even national level — very much a possibility, operations must be able to flex between physical and virtual footprints or a hybrid of the two. In a more digital world, cyber security and the protection of customer data will become more important than ever — key issues on which a bank's reputation could depend. 4. Keep attuned to opportunities for growth, not just risk mitigation. Dynamic, predictive models to better understand customers and the associated risks could also drive opportunities to create competitive advantage and growth. Corporately, strategic acquisition opportunities could also arise as the fallout from COVID-19 unfolds.

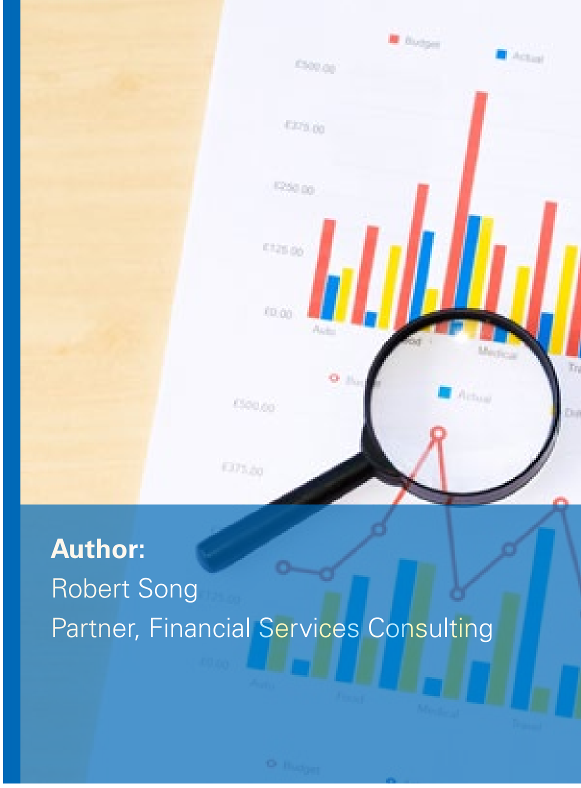
VI. Values and purpose front and centre

As governments, businesses and citizens start to look towards the new reality of life with COVID-19, considerations related to environmental, social and governance (ESG) issues are central to the agenda. The days when financial institutions were almost exclusively evaluated by their growth, profits and go-forward prospects are receding. Today, what customers, investors and stakeholders increasingly want to know about — alongside financial strength — is the company's culture, values and purpose. Societal responsibility, ethics and support for progressive climate-related products and services are paramount. Much progress was already being made pre-COVID-19 — banks need to retain these gains and build on them for the future. At the same time, as banks become more digitised and the world moves towards a cashless society, banks may need to ensure that no one gets left behind.

- **Our predictions:** 1. Having an integrated ESG strategy will be vital for financial institutions; 2. All components of ESG will be essential; 3. The environmental and climate change agenda will come strongly back into focus; 4. How organisations acted during the pandemic will have ramifications for how customers, stakeholders, investors and employees judge them long into the future; 5. For those banks that don't pursue a strong ESG agenda, the consequences could be severe.
- **Actions for banks to consider:** 1. Put ESG at the very heart of what you do. It cannot be a standalone or separate lens through which things are viewed. It must be integrated holistically from the beginning in how they operate, part of the way interactions with customers are framed and how strategic and commercial activities are assessed. 2. Use ESG as a practical and value-adding tool. It is a common misconception that ESG considerations can "kill deals" — in fact, it helps banks understand and price risk. It is very practical and, used in the right way, generates significant commercial value. 3. Take bold action, now. COVID-19 has accelerated the momentum and through it ESG issues will increasingly set the bar for how banks are assessed. Review where you are now and where you want to get to. Articulate your ambition and vision. Consult with your stakeholders and bring them on the journey.

To thrive in the new reality, banks will need greater connectedness across their front, middle and back offices than ever before. Being truly customer led, regardless of the type of bank — retail, commercial or investment — will require reimagined distribution and operating models, harnessing an increasingly digital economy and maximising new ways of working, while at the same time managing costs and new risks, and placing all aspects of ESG into their core strategy. The time for action is now.

How small and medium-sized banks position and perceive risk control transformation



Author:
Robert Song
Partner, Financial Services Consulting

Risk is a core issue for all commercial banks. For banks to survive and thrive, they must be able to comprehensively and effectively identify, measure, manage and control risks. With the recent narrowing of net interest margins, the increasing homogenisation of banking services, frequent risk events, and stricter regulation, banks can no longer "rapidly expand" while benefitting from "market reform." They now need to transition from fast development to quality development. In this new reality, commercial banks have begun to rethink how rational, systematic and advanced their risk control systems are. To prepare for the opportunities and challenges of the future, banks have started to embrace a new wave of risk control transformation.

In contrast to large commercial banks and joint-stock commercial banks, regional commercial banks have traditionally not considered risk management to be an important factor in their bank-wide business strategies because they thought that risk management was holding back business development and making it harder for them to achieve their performance goals. For this reason, risk control systems tend to lack the necessary human, system and technological resource support that they need to develop. When there is a risk event, risk control measures are often found to be set aside, resulting in a situation in which even a single error can trigger a crisis. For this reason, going forward, managers should do away with their preconceived notions and adopt practices that strike a balance between risks and profits.

It is also important for small and medium-sized banks (SMBs) to not simply copy or follow the management practices of leading banks when building their own risk control models. Instead, they should customise their own risk appetites and management practices based on their unique characteristics, development status, business strategies, and basic capabilities. There is no consensus in the industry regarding what kind of risk control model is "best"; and as models evolve over time, the "leading" models for risk control and division of management roles will continue to improve.

In this section, we will discuss and share insights on how SMBs position and perceive risk control transformation. In the future, we hope that more innovative ideas will come forward in this regard.

Risk management in the new reality?

Over the last 2 years, the macro-economy has not significantly improved; regulators have tightened their regulation of the financial industry; and interest rate liberalisation has intensified market competition. On top of these challenges, the COVID-19 outbreak in 2020 has caused grave damage to the economy as a whole, and SMBs are struggling for survival and development in an increasingly unfriendly environment. In addition, bank management is facing market and customer issues that are more complex, volatile, and ambiguous than ever before.

As a result of this pressure, some bank management teams are relaxing their scrutiny over risk appetites in certain areas and shifting their focus away from improving risk management. It goes without saying that going-concern issues, business development and profitability growth are of vital importance; but risk management and proactive risk operations are still core principles that all banking personnel should recognise and act on.

In our communication with numerous members of senior management at regional commercial banks, we have noted that they tend to be generally confused and uncertain about how to position risk management, how to balance risk management and business development goals, whether risk management transformation is necessary, and which course they should pursue when it comes to transformation. These uncertainties usually have a direct impact on the direction a financial institution takes in building its risk management system, and they even change the course of business development and how business activities are carried out.

Is enhanced risk control a hurdle to business development?

When it comes to risk management, banks have to review and adjust key areas, segregation of duties and technological methods during various stages of development and in different external environments. The key to risk management is not only to prevent and control risks, but to conduct proactive risk operations that strike a balance between risks and benefits based on the bank's risk appetite.

Frontline banking departments may be under the impression that enhanced risk control capabilities, processes and tools will act as hurdles to business development and business goals, but this is a misconception that could not be further from the truth. First, there should be bank-wide participation in risk management activities. Each business line has its own responsibilities and duties to risk management, and each business line should be operating in conjunction with the risk control department to achieve business goals and control risks. The business lines should work together as a seamless entity in this regard. Second, frontline banking personnel should understand that effective risk management is about creating value, not about "keeping risky business as far away as possible."

For example, risk management creates value for credit business by conducting risk operations and preventing potential losses, and risk operations can only be conducted when business development and business activities are being smoothly carried out. Even now when the economic environment is extremely challenging, how do "leading banks" still acquire customers that have credit demands (including self-initiated credit demands), and the ability and willingness to make repayments? How can banks continue to grow in terms of scale and profitability? Geography certainly plays a role here, but we have observed that even in the same market where there are the same customers and opportunities, the "leading banks" still win by a nose due to their capabilities in industry research; information acquisition, screening and application; product deployment; pricing and negotiation; plan development (service plans and credit plans) and implementation; post-loan warning and continuous monitoring. By using their capabilities in these areas, they are able to win customers and business that their competitors cannot, all while keeping costs and risks at bay. These advantages affect every transaction and have a significant impact on the difference in overall operating efficiency between the "leading banks" and their peers. Aren't all of the capabilities described above related to the integration of risk control and operations? Aren't they each the result of business lines, risk management and support functions working together? In summary, far from serving as a hurdle, risk management actually aims to ensure that business goals are achieved.

Unenforced risk appetites?

SMBs emphasise stability in their development because they cannot afford to make big and irreparable mistakes. A significant credit risk event or material liquidity event has the power to destroy years of their hard work. For this reason, banks must strongly emphasise their risk appetite across all levels of the organisation. As a component of a bank's strategy, risk appetite is directly linked with the course and major indicators of a bank's development, and it is an issue of common concern for all stakeholders. Once a bank announces its risk appetite, it should be strictly complied with. If the risk appetite can be overridden with special approval, then it is not really binding. The risk appetite can be adjusted with the board's approval, but it should be strictly complied with once determined. Therefore, SMBs need to identify their own development course, including their markets, services and model positioning, before they can determine a reasonable risk appetite and limit. Once the risk appetite is determined, they can break it down into various operating indicators for compliance purposes.

Should the credit department be blamed when a risk arises?

Matching responsibilities with rights and benefits is the foundation of effective risk control. In other words, the unit that bears the most responsibility should also benefit the most. If there is a mismatch between responsibilities and rights, risk management may start well, but it will end badly as risk management teams and business management teams become isolated from each other and even enter into conflict. For example, frontline business personnel might think, "We are responsible for designing products, marketing, selling, and maintaining customer relationships. We have done our job as long as we bring in new customers and business. The credit department can worry about controlling risks." If they have this perspective, after a loan is granted, they will consider it to be no longer their responsibility, and they will think the credit department should be blamed if a loan cannot be recovered. This mismatch of responsibilities and rights is hardly conducive to the achievement of a bank's risk control goals. To head off issues like this one, financial institutions need to explore and build a long-term mechanism for risk management. This mechanism should allow them to dynamically manage the entire risk management process (including goal setting, implementation monitoring, dynamic assessment and risk appraisal) and create a risk management environment and culture in which everyone is involved and benefits are matched with risks.

Is fintech risk control out of reach for small and medium-sized banks?

It is true that SMBs lag far behind larger banks in terms of talent, technology and resources, and this is one of the major reasons why many SMB management teams are hesitant to adopt fintech risk control. Some large financial institutions have invested significant resources and time into fintech risk control. Of course, some of their investments may have been wasted, and some results might not have been accurately quantified, but there is no doubt that they have gained useful insight into leading practices.

First, in terms of positioning, fintech risk control should not be viewed as a replacement for existing manual processes, but as a tool that enhances traditional risk control. Some financial institution personnel may be wary of this trend. For example, they might say, "Some overseas hedge funds have automated their business operations and risk control using cutting-edge investment advisory systems. Will we also rely on rating tools and marketing planning tools that leverage big data, AI and other technologies? Will they replace the work that people are currently performing?" In this regard, a few cases are not representative of the general trend, especially when application tools are involved. When determining how best to deploy fintech risk control, SMBs should consider how well they are currently performing in terms of their customer base, business scale, data quality, and system support. Based on these considerations, they can determine how fintech risk control should be positioned and applied.

In some areas, fintech risk control is actually quite well-developed and has served many domestic financial institutions well. For example, fintech has been used to conduct customer risk profiling, acquire information to prevent fraud, conduct SME/retail scoring, measure credit limits, perform collateral management and valuations, and trigger post-loan warnings. We recommend that SMBs adopt a "follower" approach when devising their fintech risk control strategies and concepts. They should proactively learn from their peers, assess their own conditions, evaluate their innovation needs, and determine where fintech can enhance risk control the most. In short, they should stop waiting and act now.

In order for fintech risk control to succeed, SMBs also need the "infrastructural support" of talent, data governance and technology. Large domestic financial institution can calibrate their SME-scoring tools on a quarterly basis to align them with changes in the market and customer base and maintain their effectiveness. These efforts are a testament to these institutions' capabilities, which rely on the integration of their organisational structures, expert teams, model management, data governance and deployment management. SMBs should not overlook the costs incurred by their peers to achieve these results, and they should also continue to improve their own infrastructural capabilities.

How to achieve transformation?

Risk management requires a comprehensive, multi-layered and in-depth system and involves various stakeholders. Constructing a risk management system is a "top-down project" that can take years, and transforming such a system is a similar process.

Rome wasn't built in a day, and one could say the same about transformation. For risk control transformation to succeed, banks need to identify their goals and their path forward. They should be committed to achieving these goals, and at the same time they should foresee and prepare for setbacks and challenges along the way. Tactically, banks should hold firm in some areas but be flexible in others. For example, they should be firm in setting goals and implementation, but flexible in the methods they deploy to achieve goals and deal with stakeholders. A bank consists of thousands of people, and they all have their own ideas. As part of the transformation process, banks should promote risk awareness and drive home the importance of risk control. More importantly, though, they should implement firm controls and constraints and use these as an opportunity to embed monitoring, evaluation and risk appraisal mechanisms in their risk management systems.

Another option for SMBs is to divide management system reform into several sub-projects. In this way, they can gradually achieve the overall transformation of their risk model and culture. A bank can start with the coordinated transformation of the credit management system to adjust organisational division of labour, organisational and personal behaviour, credit scope management, credit process management, credit limit management, authorisation management, statistical analysis, data quality and system functions deployment.

They can also start with early warning management, internal rating management and collateral management. Starting with these areas will allow for risk control transformation to achieve a "softer landing" compared to other areas that would require rigid changes in departmental responsibilities, adjustments in system processes and newly added positions.

When it comes to risk control transformation, SMBs face a long journey. It is important for SMBs to customise their risk appetites and management practices by continually adjusting and optimising their risk control models and division of management based on their unique characteristics, development status, business strategies, and basic capabilities.

Comprehensive credit risk management solutions that strengthen the foundation of banking risk control

Author:
Cao Jin
Head of Financial Risk Management Consulting

With respect to risk management, commercial banks are primarily exposed to credit risk. According to industry statistics, credit risk accounts for more than 90% of commercial banks' exposures, and it accounts for a major part of other financial institutions' exposures as well. The scope of commercial banks' credit risk management covers almost all credit businesses and products. Most banking risk management policies, procedures, tools and systems are developed and built around credit risk.

In operations and management, financial institutions face two primary issues: how to balance credit-related benefits and risks, and how to manage credit risk. These two issues are the focuses of risk management.

Difficulties and challenges in credit risk management

In the banking industry, the number and proportion of non-performing assets have increased swiftly, swallowing up banks' financial resources and putting enormous strain on banks' operations and finances.

Diversified financing channels, hurried financial innovation, and shadow banking services that are not supervised and controlled have concealed real credit risks, and these risks could lead to systemic problems.

The risk management structures that are currently deployed by commercial banks do not meet their business development and risk management needs. Commercial banks need to devise a reasonable structure that considers the relationship between their head office and subsidiaries; between their head office and branches; between their front, middle and back offices; and between their three lines of defence. By using this structure, banks can avoid the dilemma of "chaos during regulatory relaxation and dead silence during regulatory tightening."

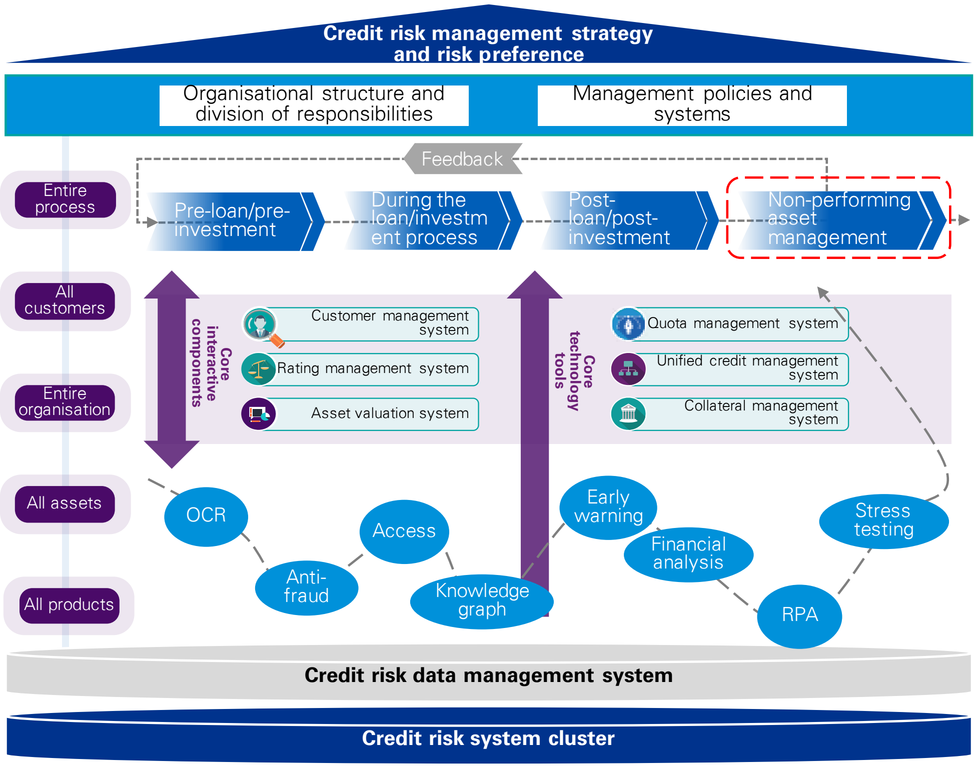
Regulators have enacted various new stringent regulatory requirements that cover all aspects and levels of risk management. However, commercial banks are struggling to cope with new developments because they lack holistic and comprehensive response measures and plans.

New technologies such as big data, artificial intelligence, mobile terminals, cloud computing, and blockchain are being widely used in many areas of banking operations. These technologies are raising challenging questions for the credit risk management of middle offices, such as how should middle offices handle new customer groups, channels and products, and how should middle offices apply these new technologies to risk management?

Comprehensive credit risk management solutions

Many financial institutions urgently need to address their credit risk management issues. To this end, banks should develop a comprehensive solution based on their basic principles and ideas regarding risk management. The solution should cover the entire credit risk management process and the entire organisation, including all assets, customers and products; and it should include the credit risk management structure, policies and systems, management processes, measurement models, non-performing asset management, asset valuation, data systems, and system construction.

A comprehensive credit risk management solution consists of a top-level structural design that can expose the root causes of problems and offer a reasonable path and holistic solution to the bank's problems. It does not just address solitary issues. Experienced professionals will need to participate throughout the entire process to monitor and manage any major issues that arise and ensure that these issues are resolved completely.



A comprehensive solution should cover 1) credit planning and processes, smart risk control, and system construction; 2) credit risk measurement models and their application; 3) credit risk data system construction; 4) non-performing asset management; and 5) asset valuation and collateral management.

Credit planning and processes, smart risk control, and system construction

- Credit risk management system planning
- Design of the credit risk governance structure
- Unified credit approval and limit management system
- Large risk exposures
- Planning, analysis and optimisation of the credit process system
- Design and planning of the smart credit risk control system
- Design and planning of online credit products and processes
- Credit system architecture design and system requirement analysis
- Application of new financial technologies in the credit risk control system

Credit risk measurement models and their application

- Development and verification of internal rating models for credit risk
- Management and application of internal credit risk rating systems
- Development and application of risk alert models
- Valuation of risk assets
- Risk stress testing
- Development, management and application of the IFRS 9 impairment model
- Development and application of anti-fraud models
- Development of risk measurement models driven by big data and artificial intelligence (e.g. rating alerts, strategic models, etc.)

Credit risk data system construction

- Data governance
- Risk data mart construction
- Unified risk perspective and model construction
- Design of the big data system

Distressed asset management

- Transaction and disposal of non-performing assets
- Design of the non-performing asset management process
- Valuation of non-performing assets
- Credit risk management for non-performing assets
- Construction of the non-performing asset management system

Asset valuation and collateral management

- Asset valuation
- Application of collateral valuation methods and management
- Application of big data-driven collateral valuation and management
- Design of collateral management policies and process systems

Features of a comprehensive credit risk management solution

1. Comprehen-sive:

A comprehensive solution is designed from the financial institution's perspective and considers the systematic and overall requirements for credit risk management. It does not rely on a single technology or tool. Instead, the system is designed using

2. Integrated:

All credit risk management issues are related. Banks should look at the essence of the issues and get to the root causes instead of just addressing the symptoms. Risk management approaches and tools should be applied in an integrated manner to solve fundamental problems. Using this manner of thinking, the financial institution should be able to shift from a single point of view to a comprehensive perspective.

3. Systematic:

A comprehensive solution emphasises addressing the essential problems of a financial institution's credit risk management. It does not merely combine specific methods and tools. Instead, it relies on seasoned professionals' expertise and experience in the industry to assist the financial institution in making diagnoses; analysing the crux of problems from top to bottom; and putting forward targeted, basic, top-level design plans. Financial institutions can then propose various specific solutions based on these plans.

Using derivatives linked to LPRs to manage net interest margins

Authors:
Kevin Tao
Partner, Financial Services Consulting
Lori Zhang
Associate Director, Financial Services Consulting

Trading has gradually picked up with the arrival of new varieties of derivatives linked to LPRs

The National Interbank Funding Center issued the Notice on Preparations for Pilot Interest Rate Options Business on 2 January 2020, and banks have been conducting related trading and services on a pilot basis since 24 February 2020. The products that are being traded include interest rate swap options linked to LPR1Y/LPR5Y and upper/lower limit interest rate options. These options, which are European style, provide traders with new varieties of interest rate derivatives that are linked to loan prime rates (LPRs).

Compared with existing interest rate swaps, interest rate options allow for more flexibility in the management of risk related to interest rate fluctuations as they can make better use of future market fluctuations. By using interest rate swaps, banks can lock in returns from assets and interest payments on liabilities and avoid exposure to possible losses arising from unfavourable changes in interest rates. However, they will also not be able to pocket additional returns brought about by favourable changes in interest rates. With interest rate options, banks can exercise the options to avoid interest-related losses when interest rates change unfavourably, and they can also forfeit the right to exercise the options when interest rates change favourably. In this way, they can enjoy higher returns from assets and pay lower interest rates on liabilities.

At present, interest rate swaps are the most common risk management tool for banks and the most actively traded derivative in the domestic inter-bank market. Now that new LPR quotes have been made available, trades of interest rate swaps linked to LPRs have increased rapidly. As at the end of July 2020, the total trading volume and amount of interest swaps linked to LPRs stood at 1,811 and RMB 270 billion, respectively, and the average trading price was 3.98% (source: China Currency Network).

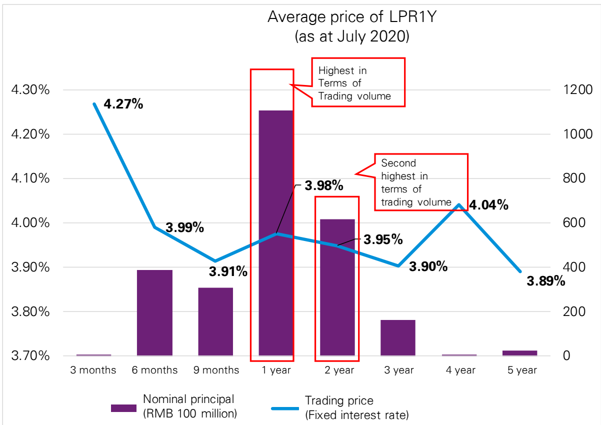
In terms of trading volume, interest rate swaps linked to LPR1Y accounted for 97% of all trades of interest rate swaps linked to LPRs, making them the most actively traded product. A total of 749 transactions amounting to RMB 110,784 million were recorded for such products, which accounted for 41% of the total transaction amount for interest rate swaps linked to LPRs.

Varieties of interest rate swaps linked to LPR1Y

As at July 2020, there are **8 varieties** of interest rate swaps linked to **LPR1Y:** 3 months, 6 months, 9 months, 1year, 2 years, 3 years, 4 Years and 5 years.

Reference Interest rate	No.	Term
LPR1Y	1	3 months
	2	6 months
	3	9 months
	4	1 year
	5	2 years
	6	3 years
	7	4 years
	8	5 years

Trading volume and average trading price of interest rate swaps linked to LPR1Y



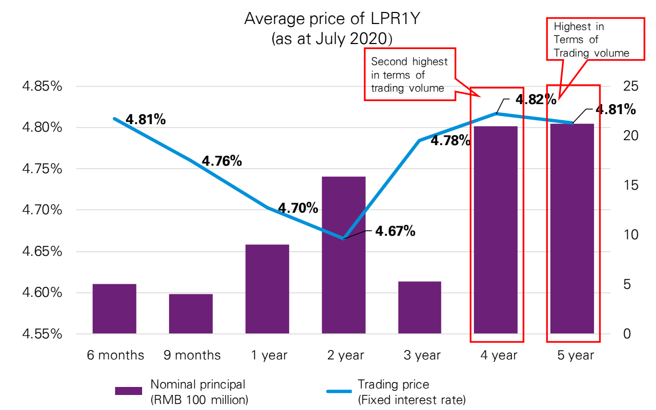
The trading volume of interest rate swaps linked to LPR5Y accounted for 3% of the total. Products with maturity terms of 4 and 5 years were the most actively traded. Swaps linked to LPR5Y were traded at 4.76% on average, which was significantly higher than the average trading price of swaps linked to LPR1Y.

Varieties of interest rate swaps linked to LPR5Y

As at July 2020, there are **8 varieties** of interest rate swaps linked to **LPR5Y:** 3 months, 6 months, 9 months, 1year, 2 years, 3 years, 4 Years and 5 years.

Reference Interest rate	No.	Term
LPR5Y	1	3 months
	2	6 months
	3	9 months
	4	1 year
	5	2 years
	6	3 years
	7	4 years
	8	5 years

Trading volume and average trading price of interest rate swaps linked to LPR5Y



Analysis of strategies for using interest rate derivatives to manage net interest margins

The National Interbank Funding Center issued the Notice on Preparations for Pilot Interest Rate Options Business on 2 January 2020, and banks have been conducting related trading and services on a pilot basis since 24 February 2020. The products that are being traded include interest rate swap options linked to LPR1Y/LPR5Y and upper/lower limit interest rate options. These options, which are European style, provide traders with new varieties of interest rate derivatives linked to loan prime rates (LPRs).

Commercial banks' business need for interest rate derivatives transactions mainly comes from the following two departments:

- Proprietary arbitrage trading, agency trading and external flat trading in financial markets departments
- Hedging transactions initiated by asset and liability management departments

Net interest margin management is still the primary objective of asset-liability management for commercial banks in China. Therefore, hedging undertaken by asset-liability management departments will be an important scenario for the use of interest rate derivatives in the future. Following the switch from benchmark lending rates to LPRs, interest rates on some bank assets will likely be changed from fixed to floating given that interest rates are widely expected to fall.

For the purposes of stabilising net interest margins, banks need to conduct hedging for both micro and macro reasons:

1) Micro hedging at the business level

- For an individually-significant floating-rate asset or liability, banks use interest rate swaps to hedge risk and lock in interest income or expenses.
- Banks use upper or lower interest rate limits to hedge risk and avoid excessively low interest income or excessively high interest expenses caused by significant unfavourable fluctuations in benchmark interest rates.

2) Macro hedging at the asset-liability portfolio level

- Based on research into future interest rate trends, banks may want to quickly change their current asset and liability repricing exposure to avoid declines in net interest income due to repricing, and in such cases they can use interest rate swaps to hedge risk.
- For fixed-rate corporate loan portfolios, banks hedge risk with interest rate swap options. These options allow them to manage the risk of a decline in interest income from new assets resulting from early repayment in an environment in which benchmark interest rates are trending downward.

Business needs	Business under management	Hedged risk	Trading method	Interest rate derivatives
Micro hedging at the business level	Floating-rate assets or liabilities	The risk of fluctuations in interest income or expenses caused by changes in interest rates	Cash flow hedging	Interest rate swaps
	Floating-rate assets or liabilities	The risk of fluctuations in interest income or expenses caused by unfavourable changes in interest rates	Cash flow hedging	Interest rate options
Macro hedging at the portfolio level	Asset-liability portfolios, e.g. floating-rate loans + fixed-rate certificates of deposit	Fluctuations in net interest income	Cash flow hedging	Interest rate swaps
		Unfavourable fluctuations in interest income from new assets caused by early repayment	Cash flow hedging	Interest rate options

In addition to the above hedging strategies, banks can also use a combination of interest rate swaps and options or a combination of different types of interest rate options after taking into account transaction costs and the tolerable range of interest rate fluctuations. In this way, they can refine their risk management operations.

解决方案

We expect the need to hedge interest rate risk will become more urgent when the interest rates for all existing loans switch from the benchmark interest rate to LPRs.

We can help banks develop proactive long-term hedging mechanisms using the following four solutions: analysis of hedging requirements and design of hedging strategies, risk hedging management mechanism construction, hedge trading management system construction, and integrated hedge accounting solutions.

Analysis of hedging requirements and design of hedging strategies:

Based on our analysis of the market environment and repricing gaps, we can combine on-balance sheet adjustments with off-balance sheet hedging strategies to achieve management objectives. In terms of the design of specific hedging strategies, we identify hedging scenarios and use different types of derivatives, hedge ratios and periods to devise hedging strategies. We can design hedges at the individual or portfolio level and deploy hierarchical and rolling strategies in order to meet different internal management requirements.

Risk hedging management mechanism construction:

We can help banks establish support mechanisms for hedging management; and we can define management processes for formulating management plans, designing risk hedging strategies, initiating and executing trades, evaluating hedging effectiveness, and adjusting and terminating hedging strategies. In addition, we can help banks embed necessary authorisations, risk indicators, accounting treatments, hedging documents and management reports in the existing business management, risk management and financial management frameworks.

Integrated hedge accounting solutions:

Hedge accounting is an important part of hedge management for banks. Hedge accounting can effectively reduce accounting mismatches and improve the quality of financial statements. With our extensive experience in hedge accounting, we can provide an integrated solution that covers the entire hedging process, including hedging feasibility analysis, hedging relationship designation documents, hedging effectiveness evaluation, hedging relationship rebalancing, hedging relationship termination, accounting and information disclosure. Our solution comes equipped with many flexible tools and templates to assist banks in implementing hedge accounting.

Hedging relationship designation documents

Document content:

- Risk management objectives and hedging objectives
- A description of hedged risks and types of hedges
- Designated date of the hedging relationship
- Selection of hedged items and hedging instruments
- Evaluation method, frequency, and criteria for hedging effectiveness
- Treatment of ineffective hedges

Document requirements:

Necessary review, approval procedures, written tracing and filing for future reference

Evaluation of hedging effectiveness

What is evaluated:

- Risk management objectives
- Economic relationships
- Credit risk impact
- Hedge ratio

Evaluation method:

- Qualitative evaluation – comparison of key terms
- Quantitative evaluation – regression analysis, ratio analysis
- Assume that derivatives are generated

Frequency:

When a significant change in the designated date, balance sheet date, or related circumstances will affect the effectiveness of the hedge

Hedge accounting

Accounting model:

- Fair value hedges
- Cash flow hedges
- Net investment hedges for overseas operations

Key implementation points:

- Accounting rules
- Hedge account setting

Information disclosure

Disclosures:

- Hedging policy
- A process for continuous monitoring of hedging effectiveness
- The nature of the hedged risk and the hedging strategy
- A description of the hedge types, the financial instruments designated as hedging instruments and their fair values at the end of the reporting period
- The impact of the three types of accounting models on the financial statements

Hedge trading management system construction:

In addition to offline tools and templates, given the complexity of evaluating hedging effectiveness and dynamically adjusting strategies, we can develop a hedge trading management system to help banks achieve automated full-process management. By considering multiple hedging scenarios and analysing banks' requirements, we can help banks implement hedge trading management systems that cover areas such as risk hedging relationship designation, effectiveness evaluation, rebalancing and hedge accounting.

Increasing revenue and reducing costs, and HR challenges during the pandemic

Authors:
Zheng Rong
Partner, Management Consulting
Cherry Zhang
Director, Management Consulting
Sarah Liu
Associate Director, Management Consulting

Since early 2020, the entire country has been impacted by the effects of the COVID-19 pandemic. Different companies have been affected to varying degrees, and some are even in danger of closing. As companies in different regions resume business, human resource departments are busy making arrangements under the new reality. In one example that illustrates the HR issues that enterprises are facing, the CEO of a company in Yunnan recently sent an e-mail criticising his company's HR department. In the e-mail, the CEO accused the HR director of "doing nothing" and failing to provide constructive views on how to respond to the pandemic. What should HR departments be doing? This question has been a topic of heated debate.

HR management in China has gone through several different stages of development. At first, it was in a transactional stage. HR departments were mostly engaged in operational activities, such as attendance taking, salary payment, onboarding and exit processes, and payment of social insurance contributions. Once an HR department adopts western management concepts, it begins to perform other HR activities, such as recruitment, training, compensation planning, and performance evaluation; and at this point, HR management gradually moves into a stage in which it is more aligned with an entity's development strategy. This trend has been accompanied by the development of "specialised" HR management. Many HR management theories, models and methodologies have been developed, and these have laid a solid foundation for "specialisation" in the field. Nevertheless, "specialisation" also means increased technical formalism and decreased practical application. As "advanced theories" have become more complex, HR management has gradually broken away from the practical side and moved in the direction of "experts" with a focus on theories. In this way, the field has gradually strayed from the original purpose of management, which is to create value for the business.

Many HR management theories, models and methodologies have been developed, and these have laid a solid foundation for "specialisation" in the field. Nevertheless, "specialisation" also means increased technical formalism and decreased practical application.

In the case of the e-mail mentioned above, was the HR department able to identify the issues of real concern to the business (e.g. cost reduction, resumption of work in an orderly manner, and work safety)? A difference in focus between the CEO and the HR director probably resulted in this conflict.

??? So, what type of HR management really creates value?

According to Peter Drucker:

> Management is practice. Its essence is not knowing but doing. Its test is not logic but results. Its only authority is performance.

By transitioning from "operational activities" to "management," HR management has made remarkable progress. Nevertheless, it has remained superficial at a time when it needs to return to its essential purpose, which is to serve as a real driving force that supports business development.

We believe that the essence of HR management is to explore ways to increase revenue and reduce costs, and to help enterprises achieve sustainable and healthy development through organisational management.

Expanding sources of income: increasing business and revenue

1. Corporate business

With respect to the marketing model for corporate customers, commercial banks are facing challenges as they change from the previously relationship-based model to a product and service-based model. In order to successfully make this change, banks should increase vertical and horizontal synergies and thoroughly implement their development strategies. In addition, they should optimise marketing processes to more deeply explore the potential value of customers, and they should upgrade their account managers' marketing skills so as to increase their customer base.

2. Small and micro business

On this front, banks face two key challenges: improving the productivity of small and micro business teams and onboarding new recruits. To meet the first challenge, banks should use template-based marketing process management to build "five-star" small and micro business teams, and they should implement an evaluation and dismissal mechanism using "red and yellow cards." For new hires, banks can introduce "onboarding journey" programmes that consist of standardised process-based workflows that are replicable and evaluable.

3. Personal finance

When it comes to personal finance, banks need to reshape their retail sales systems. More specifically, banks need to transform from customer acquisition by individual salespersons to mass customer acquisition by sales teams with the help of standardised products and system support. To achieve this transition, banks need to rebuild the name list management and evaluation systems at their head offices, and they need to use digital platforms to overcome traditional organisational constraints and manage front-end sales. They can also adopt a standardised mass marketing approach to institutional sales to increase their penetration rates.

4. Financial technology

One challenge commercial banks are facing with respect to fintech is how to transform this technology from a supporting role to a driving force for their business. In other words, instead of merely "receiving orders," fintech development should seek to integrate technologies and assume a front-end role. To achieve this transformation, banks need to develop organisational structures and grading systems that are fit for the future. They also need to specify the qualification requirements for key positions and evaluate their talent pool to ensure that the right personnel are available to meet fintech development needs.

5. Financial markets

With respect to financial markets, banks need to transition from the conventional business model of providing customers with traditional financial services, such as deposits and loans, to conducting intermediary and financial market business. To meet this urgent need for transformation, banks should formulate consistent strategies to quickly seize market share and outline a clear path for cultivating the right professional talent.

Reducing costs: improving quality and efficiency

1. Optimising organisational structures and roles

The design of banks' organisational structures and roles lags behind their business development, and this problem has been made more acute in recent years amid internal and external changes in Internet finance, interest rate marketisation, stricter regulatory requirements, and digital transformation. Financial institutions urgently need to upgrade the traditional models that are used at their head offices and branches into more flexible models that are better suited to the new normal. By deploying strategies, drawing on the experience of leading peers, improving business line management, and taking into account local circumstances, banks can significantly improve management quality and operational efficiency and embrace new market opportunities.

2. Optimising personnel

From a personnel perspective, the banking industry is facing a structural imbalance: redundant employees are on staff at a time when there is a shortage of key personnel. To rectify this issue, commercial banks should focus on factors that are key to business development, and they should devise differentiated roles for the front, middle and back offices. To be successful in these efforts, banks need to compile lists of job positions and develop dynamic staffing models. In addition, they need to optimise their staff structures and improve the performance of all positions to improve overall staff efficiency.

As competition intensifies in the financial industry, banks are encountering challenges such as shortages of key professionals, high turnover rates, and imbalanced personnel structures. By evaluating the talent pool, banks can gain a more comprehensive and objective understanding of the talent available. Based on this understanding, they can take targeted measures to select and retain talent and ensure that their personnel strategies meet their transformation needs under the new normal.

Measures to support sustainable development

1. Financial risk management

How can banks ensure that all the talk about cultivating a risk culture is actually implemented? Should they use modeling, systems, rewards and punishments, or technology? Should they change employee thinking? In view of the need to continuously strengthen risk management, banks should break down abstract risk culture concepts and implement them at each level and business line of the bank, and as part of this work they should spell out specific work lists and requirements for the front, middle and back offices. By supplementing these efforts with a supervision and assessment mechanism, everyone in the bank can become a defender against risk.

Another issue relates to the fact that risk management is usually conducted at a later stage in the business process, and oftentimes customers are only tracked after risk warnings arise. To address this problem, risk management should be conducted earlier by the front office. Specifically, the front office should effectively identify risks before loans are granted, and relevant departments should propose forward-looking and differentiated post-loan management measures during the loan approval process to lower the risk that loans will become overdue or non-performing.

2. Business continuity

Commercial banks face more management difficulties when they have a large number of employees spread across their branches and entities. At the same time, banks are concerned with ensuring business continuity in an increasingly uncertain external market environment. In this regard, one solution is to establish a bank-wide "systematic, standardised, and template-based" work instruction manual, so that every employee at the bank can efficiently operate and collaborate with other employees, thereby reducing management and communication costs. In addition, banks can use smart marketing and online training tools to reduce the costs associated with centralised training and enhance the capabilities of employees.


7%
26%
8%
24%
20%

Challenges in liquidity risk management during the pandemic

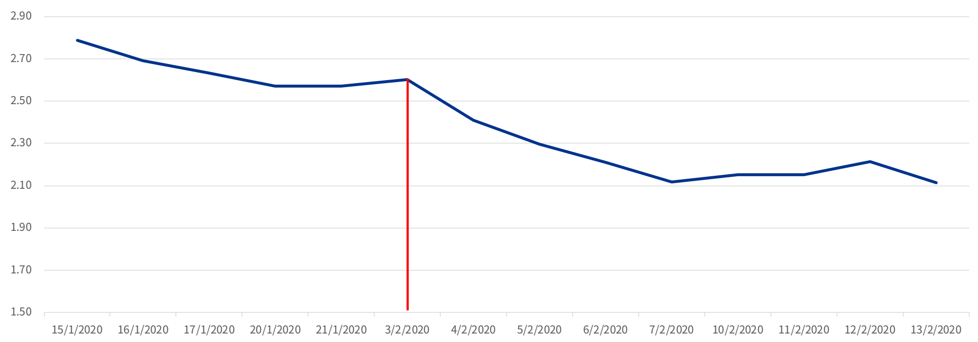
Authors:
Kevin Tao
Partner, Financial Services Consulting
Lori Zhang
Associate Director, Financial Services Consulting

Liquidity risk is not only the most fundamental risk for commercial banks — it is the ultimate and "most lethal" risk. Since the outbreak of COVID-19, the liquidity security of commercial banks, an important link in the liquidity transmission chain, has been put to the test. The pandemic has acted as a kind of mirror that has fully exposed the liquidity risks that were hidden under the previous extensive management model that "focused on profitability and neglected liquidity." Under that model, some commercial banks lacked a sense of crisis and the ability to respond to crises. In this regard, we recommend that commercial banks raise their awareness and switch from a passive stance to a more active one. They can do this by focusing on improving their systems, stress testing, contingency management, dynamic asset and liability management tools, and liquidity risk management information systems. In this way, they can overcome the difficulties that have arisen during the pandemic and successfully transform and upgrade liquidity risk management.

1. Loose monetary policies and declining market interest rates

To maintain adequate liquidity in the banking system and the stability of the money market during the epidemic prevention and control period, the central bank carried out a series of open market operations after the Spring Festival holidays to maintain market liquidity and manage market expectations. From 3 February to 10 February 2020, the central bank made reverse repurchases amounting to RMB 2,600 billion, injecting RMB 520 billion into the market and lowering the winning bid rates. On 3 February, the bid rates for 7-day and 14-day reverse repurchases were 2.40% and 2.55%, respectively, which represented a decrease of 10 basis points compared with the previous rates. Since the market resumed trading on 3 February, liquidity in the interbank market has been loose, and money market interest rates have stayed low, further driving down interest rates on bonds, bills and loans.

Chart 1: Weighted interest rates for 7-day pledge repurchases



(Source: WIND)

2. Liquidity risk management challenges for commercial banks during the pandemic

(1) Funds: Small and medium-sized banks that rely on interbank lending have been greatly affected by declines in total general deposits

Due to the interruption of business activities, the cash flow needs of small and medium-sized enterprises (SMEs) and owner-operator businesses have increased; and as a result, commercial banks' general deposits, especially corporate deposits, have fallen. Despite the measures taken by banks to stabilise retail deposits, the decline in total general deposits has put pressure on regulatory liquidity indicators, particularly for small and medium-sized banks, which are highly dependent on interbank lending.

(2) Assets: Banks are facing significant cash flow pressure as greater funding needs arise to support resumption of production and work

During the pandemic, SMEs' daily transactions have been significantly lower than normal, and as a result, their solvency positions have declined in the short term. This trend has been particularly obvious in the restaurant, transportation, wholesale and retail industries. As these SMEs' cash flows decline, their loans may become overdue or be extended, which will reduce banks' cash inflows and even undermine asset quality. In addition, the income of employees in sectors hit by the pandemic may drop, especially for those who have temporarily lost their sources of income; and their ability to repay personal loans such as housing mortgages and credit cards will be impaired. Given the need to fight the disease and resume production and work, loan demand will gradually rise, putting greater pressure on short-term funding. At the same time, commercial banks' credit management capabilities, such as flexible credit support, credit restructuring, repayment period adjustment and credit protection, will be put to the test.

(3) Liquidity risk indicators: Some regulatory indicators may be adversely affected

Over time, the impact of COVID-19 on asset and liability businesses will gradually be reflected in liquidity gaps, liquidity matching ratios (LMRs), liquidity coverage ratios (LCRs), net stable funding ratios (NSFRs) and other regulatory indicators. The specific impact of the pandemic on these metrics is as follows:

Table 1: Impact analysis for liquidity risk regulatory indicators

<table>
<tr><th colspan="2">Adjustment items</th><th>Liquidity gap rate</th><th>Liquidity ratio</th><th>LMR</th><th>LCR</th><th>NSFR</th></tr>
<tr><td rowspan="2">Assets</td><td>Greater corporate credit support</td><td colspan="5">The short-term impact on risk indicators needs to be judged by considering both the financing methods and term structures of commercial banks. Uncertainty exists with respect to long-term cash flows. (*)</td></tr>
<tr><td>Loan extensions</td><td>Increase short-term cash flow gaps</td><td>Decrease</td><td>Decrease</td><td>Decrease</td><td>Decrease</td></tr>
<tr><td rowspan="2">Liabilities</td><td>Losses of short-term deposits</td><td>Increase short-term cash flow gaps</td><td>Decrease</td><td>Decrease</td><td>Decrease</td><td>Decrease</td></tr>
<tr><td>Extensions of matured deposits</td><td>Alleviate short-term cash flow gaps</td><td>Increase</td><td>Increase</td><td>Increase</td><td>Increase</td></tr>
</table>

*Note: Given the adoption of different financing methods and term structures by commercial banks (e.g. central bank refinancing, money market financing and matured proprietary funds), the impact needs to be evaluated in light of banks' actual circumstances.

(4) Liquidity risk management: Challenges for commercial banks that "focus on profitability and neglect liquidity"

For a long time, some commercial banks have deployed the extensive development model of scale growth that "stresses profitability" and "neglects liquidity," and eventually gives rise to hidden liquidity risks. During the COVID-19 pandemic, the weak links in the liquidity risk management of commercial banks are bound to be exposed.

Extensive management is not systematic. Many small and medium-sized banks do not have a sound risk management system in place, and their liquidity risk management is rather imprecise and lacks effective systemic support for risk identification, measurement, monitoring and control. During crises, the lack of systemic support makes it impossible to accurately analyse changes in customer behaviour and liquidity gaps, effectively predict and analyse liquidity risks, and monitor the entire liquidity risk management process in a dynamic manner.

These banks are not able to effectively grasp the weight of a crisis, and their response capabilities are limited. Before a crisis occurs, they lack the technical means to manage liquidity risks and are unable to promptly identify risks and eliminate hidden risks. They have limited means and capabilities to respond to a crisis when it occurs. Due to their weak response capabilities, these banks miss the window of time that offers the best prospects for handling a crisis. Furthermore, instead of having a basket of solutions at their disposal, these banks primarily resort to interbank lending for liquidity risk management.

3. Recommendations for commercial banks to improve liquidity risk management during the pandemic

Considering the impact of COVID-19 on the liquidity of commercial banks, we recommend that commercial banks adopt the following measures to improve their liquidity risk management and crisis response capabilities:

(1) Strengthen stress testing for liquidity risk:

Stress testing is chiefly based on quantitative analysis. It measures the potential losses of commercial banks under extremely unfavourable conditions, such as hypothetical small-probability events; and it analyses the negative impact of these losses on banks' financing ability and evaluates their vulnerability to liquidity issues so that judgements can be made and necessary measures can be taken.

In addition to stress scenarios designated by regulators, commercial banks should pay attention to the design of internal stress test scenarios, retrospectively analyse the pressure exerted by risk factors involved in various assets and liabilities during the pandemic, and update relevant stress parameters and thresholds, such as asset default rates, loan extension rates and deposit loss rates. Banks should also enrich their own stress test scenario libraries and analyse regular and ad hoc stress testing results.

(2) Review contingency plans and conduct contingency drills:

Contingency management refers to the identification of early warning indicators, the formulation of contingency plans, and advance planning for the optimisation of financing channels and the use of high-quality liquid assets to meet financing needs in the event of temporary and long-term crises. Contingency management should be based on experience gained from liquidity risk contingency incidents that have already occurred.

We recommend that commercial banks pay attention to their reserves of existing high-quality liquid assets; evaluate and calculate financing capacity under various scenarios; consider the constraints of financing costs, the capital market environment and regulatory liquidity indicators; and use rational measurement tools to formulate risk mitigation strategies. Banks should investigate changes that occurred in early warning indicators during the pandemic; update contingency early warning scenarios; summarise the experience of various business units and management departments in responding to the pandemic; refine their own emergency management mechanisms, response plans and contingency plans; and conduct regular contingency drills to test the reasonableness and feasibility of contingency plans.

(3) Improve dynamic asset and liability management capabilities:

In asset-liability structure management, banks need to fully consider liquidity risks and strengthen the stability of financing sources when determining the amount, structure, and maturity of assets and liabilities; and they should focus on matching the amount, maturity, and structural arrangement of their assets and liabilities. In addition, banks should use dynamic cash flow forecasting to estimate their daily, weekly, and monthly cash inflows and outflows; and they should also calculate net cash flow mismatch figures.

The pandemic disrupted commercial banks' existing asset arrangements. After production and work are fully resumed, various needs that have been suppressed due to the pandemic will re-emerge, and these needs will generate large-scale liquidity demand on the asset side and increase uncertainties. We recommend that commercial banks foster dynamic management practices, quantify the impact of measures such as asset and liability adjustments and the extension of tax return deadlines on cash flows in the cash flow forecasting process, and conduct rational financing planning based on the forecasts. In addition, banks should analyse the impact of declines in general deposits, formulate plans to replenish funding sources using other debt instruments, and adjust asset placements based on the availability of liabilities. By taking into account liquidity and profitability objectives and closely monitoring the effect of liquidity issues on the yearly budget, banks can make dynamic adjustments to ensure the flexibility and adaptability of asset and liability management.

(4) Improve liquidity risk management information systems:

Under the new normal, internal liquidity management needs to be able to perform more functions, including rapidly adjusting static cash flows for business lines affected by the pandemic, such as lending and deposits, and conducting temporary scenario simulations, impact analysis, and stress testing. These expanded needs highlight the importance of basic support tools like liquidity risk management systems. We recommend that commercial banks improve their core liquidity risk management systems so that they can dynamically measure liquidity risk, produce cash flow calculations and forecasts, generate internal management reports for management decision-making, and analyse liquidity risk under flexible stress scenarios. In this way, banks can improve the timeliness and accuracy of their liquidity risk management and better meet liquidity risk management needs that arise from "black swan" events.

Financial and tax guidelines to help banks combat COVID-19

Author:
David Cao
Senior Tax Manager

After the sudden outbreak of COVID-19 at the beginning of 2020, the disease has spread uncontrollably around the world.

Financial institutions in China have donated money, goods, products and services to support medical institutions and their staff in the fight against the pandemic. In response to the call of regulators, financial institutions have also used various flexible methods to provide financial support and insurance protection for affected companies and their employees.

In this section, we will describe some extraordinary scenarios encountered by financial institutions in the fight against the pandemic; and we will put forward our professional views and policy recommendations regarding tax treatments with respect to the temporary business patterns and scenarios facing financial institutions during this difficult period.

1. Special funds and emergency loans

Scenario

The Ministry of Finance (MOF) and the China Banking and Insurance Regulatory Commission (CBIRC) have issued policies requiring banks not to blindly withdraw, cut off, or squeeze loans for companies that have been significantly affected by the pandemic and those experiencing temporary difficulties despite their promising prospects, especially small and micro enterprises. In response to the call of the state and in order to fulfil their corporate social responsibility, commercial banks have taken special measures to supply funds, including emergency loans, and have opened "green channels" to swiftly handle credit business and provide related services.

Tax treatment under current policies

According to Caishui [2018] No. 91, prior to 31 December 2020 and subject to certain standards and requirements, financial institutions are exempt from value-added tax (VAT) on interest income from small loans granted to small and micro businesses and owner-operator businesses; and loan contracts signed between financial institutions and small and micro businesses are exempt from stamp duty. However, no preferential tax policy is available for loan extensions granted to enterprises that are not small or micro enterprises, and such loans are still subject to VAT and stamp duty.

Policy recommendations

Companies affected by the pandemic are not limited to small and micro enterprises. We recommend that finance and taxation agencies consider introducing policies to exempt VAT and stamp duty for "special loans" granted by banks and other financial institutions to companies impacted by the pandemic. Of course, before such policies are formulated, joint discussions will need to be held among the financial industry, taxpayers, regulatory agencies and tax bureaus to define "special loans" and determine how to distinguish them from other loans.

2. Loan extensions for affected entities and credit card payment period extensions for affected individuals

Scenario

In addition to granting special emergency loans, commercial banks are prepared to extend matured loans to affected companies in accordance with the regulator's guiding opinions. Commercial banks are also prepared to defer credit card payments and offer credit protection for affected individuals. Extended loans will be treated as new loans and accounted for like normal loans, with corresponding interest income recognised.

Tax treatment under current policies

Regarding interest accrued during the original loan period, according to Caishui [2016] No. 36, after a loan is granted, interest receivable that has been outstanding for less than 90 days after the interest settlement date shall be subject to VAT pursuant to the current requirements, while interest receivable that has been outstanding for more than 90 days will only be subject to VAT after the interest is received.

During the extended loan period, banks must still observe the 90-day threshold for accrued interest receivable; that is, interest receivable that has been outstanding for less than 90 days after the interest settlement date is subject to VAT.

For deferred credit card payments and credit protection, since non-payment does not constitute a payment default during the extended credit period, banks will not recognise corresponding interest, and there is no tax impact.

Policy recommendations

We consider the extension of loans granted to companies in the affected regions to be essentially the same as the granting of special emergency loans, which provide borrowers with additional emergency funds. Therefore, we recommend that finance and taxation agencies respond to the state's call and exempt the related interest income of commercial banks and other lending institutions from VAT during the extended loan period.

3. Reduction and exemption of various handling charges

Scenario

In order to respond to and control the disease, ensure the smooth transfer of funds and encourage society to use e-payments and other online settlement services during this unusual period, the CBIRC and the Payment and Clearing Association (支付清算协会) have instructed banks and clearing organisations to reduce or exempt handling charges for cash withdrawals, fund transfers, agency wage payments, and other payment and settlement services. For accounting purposes, no fee income is recognised for the reduced or exempt amount.

Tax treatment under current policies

For fees that have been reduced, VAT and income taxes payable are directly reduced in accordance with the relevant tax regulations based on the discounts offered.

With respect to VAT on fees that have been exempted, according to Caishui [2016] No. 36, services rendered by entities or owner-operator businesses to other entities or individuals are deemed to be sales, except when they are rendered for the public good or to the general public. From an income tax perspective, in accordance with the Implementation Regulations for the Corporate Income Tax Law and related requirements, labour services donated by entities are deemed to be sales, and such services are subject to income tax based on their fair value.

Policy recommendations

We consider fee exemptions and reductions provided by banks and clearing organisations during the pandemic to be responses to the state's call and to be services that are provided for the public good or to the general public. As such, they should not be deemed sales. However, regulators have not yet issued any documents to clarify whether such fee exemptions and reductions are services provided for the public's welfare. For this reason, we recommend that the government promulgate relevant laws and regulations to clarify the definition and reduce uncertainty.

4. Increases in loan write-offs and greater pressure on pre-tax deductions

Scenario

The number of affected entities and individuals continues to grow as the pandemic spreads. Commercial banks may not be able to recover loans granted to affected groups in the short term and may eventually need to write them off.

Tax treatment under current policies

According to SAT Announcement [2011] No. 25 and SAT Announcement [2008] No. 15, entities may apply to the tax authorities for deduction of asset losses that comply with the Enterprise Income Tax Law, its implementation regulations and other relevant laws and regulations, but they should have supporting documents available for inspection.

We have noted that, when there is a debtor and a guarantor, a debt investment loss resulting from pandemic-related payment issues is not one of the specified losses. For agricultural and SME loan losses that meet certain conditions, banks can apply the simplified treatment described in SAT Announcement [2011] No. 25. Otherwise, banks need to abide by the requirements in the announcement and obtain the documents that support the write-offs through judicial recourse. It should be emphasised that in cases involving judicial recourse as stipulated in SAT Announcement [2011] No. 25, when the court accepts a case, as long as the debtor or the guarantor still owns any property, the bank is not allowed to deduct write-offs. This provision is quite different from the Administrative Measures for the Write-off of Bad Debts by Financial Institutions issued by the MOF.

Policy recommendations

Taking into account the special circumstances brought by COVID-19 and the feasibility of banks pursuing judicial recourse against affected entities and individuals, we recommend that finance and tax agencies consider relaxing the deduction standards for written-off loan losses and simplify the requirements for supporting documents that must be made available for inspection.

5. Discounted interest provided by the government for special loans

Scenario

The MOF has issued supportive policies to provide discounted interest on loans granted to companies that are key to the prevention and control of the disease, and to guarantee entrepreneurship loans for affected entities and individuals. Discounted interest, on top of preferential interest rates offered by banks, keep the effective interest rates of special loans at a low level.

Tax treatment under current policies

VAT: With respect to discounted interest for the borrowings of entities and individuals, according to SAT Announcement [2019] No. 45, financial subsidy income that is not directly linked to income from the sale of goods, labour services, intangible assets and real estate or the quantity of goods, labour services, intangible assets and real estate sold is not subject to VAT.

Income tax: Discounted interest received by entities may be regarded as non-taxable income when certain conditions are met, but the expenses incurred cannot be deducted for tax purposes. As for discounted interest received by individuals, although the Personal Income Tax Law and its implementation regulations stipulate that special government subsidies are exempt from personal income tax, the provisions do not stipulate whether the tax exemption policy applies to discounted interest on entrepreneurship loans. Therefore, we recommend that entities and individuals confirm these issues with their local tax authorities.

Harnessing data talent to achieve digital transformation

Author:
Amity Wei
Partner, Management Consulting – Big Data

The trend of digital transformation

As banks face increasing competition both in and outside the banking sector, digital transformation has become a common measure in the industry for the pursuit of business innovation and exploration. According to the Chinese Commercial Banking Digital Transformation Research Report jointly released by the National Internet Finance Association of China and the Liaowang Institute, China's banking industry is fiercely competitive and is also facing significant external uncertainty. In addition, the report says that the industry is trending toward "long-tail" customers, scenario-based products, "round-the-clock" channels, intelligent risk control, data as an asset, and open platforms, all of which make digital transformation an urgent necessity. In order to achieve digital transformation, banks need to harness the power of big data technology. The Action Outline for Promoting the Development of Big Data and the Next Generation Artificial Intelligence Development Plan released by the State Council, as well as the Plan for a Modern Financial Framework in the 13th Five-Year Plan Period issued by the PBOC, strongly advocate and promote IT and big data development and provide clear guidance, principles, and objectives for the future development of fintech in China.

In order to keep pace with the trend, an increasing number of banks are exploring digital transformation in order to leverage IT and big data and reshape their businesses more quickly. In its "3+1" Transformation Strategy for Digital Finance Innovation in the Banking Industry report released in 2019, McKinsey pointed out that according to their surveys on the digital innovation practices of about 30 companies across the globe over the past 5 years, transformation through digital innovation is becoming a necessity for banks.

Digital transformation talent is urgently needed

The truth about digital transformation is that it involves the comprehensive reform of an entity's organisation, culture, processes, and management, among other areas. It cannot be achieved by changing a single department or implementing a single programme. The banking industry is heavily dependent on technology, and in the future its business lines will be inextricably linked with technology. Therefore, for banks, technology and data talent represent the way of the future. Liu Weiguang, Vice President of Alibaba Group, President of Intelligent New Finance at Alibaba Cloud, and General Manager of Fintech at Ant Financial, noted that digital transformation is not driven by the technology departments of banks, but by changes in the mindset of management, i.e. changes in people.

In order to ensure a promising future, banks need to quickly develop measures to effectively convert digital thinking into digital capacity. In August 2019, the PBOC released the Fintech Development Plan (2019-2021) as a guideline for financial institutions pursuing digital transformation. The priorities it highlights include strategic plans for talent cultivation and support for fintech development.

Currently, most banks are facing data talent shortages in the following respects:

Lack of talent capable of leading high-level planning: Many banks have tried to undertake big data analysis, and many have set up data management departments and teams to coordinate and steer their data analysis efforts. In general, the directors of these departments and teams are knowledgeable about technology and their banks' underlying data, but they do not have a clear vision and plan for how to use the data to pursue the bank's goals, and they struggle to provide definitive answers to four critical data analysis questions: "what should be analysed," "how should data be analysed," "how should data be used," and "how should data analysis be managed." This causes various problems for data analysis teams in terms of positioning, development, and collaboration with business departments.

Lack of data analysis talent: Big data analysis is highly technology-intensive, and it should be carried out by individuals with extensive knowledge of data analysis software, statistics, big data, machine learning, and other analytical measures and tools. Unfortunately, most banks have failed to recruit or cultivate individuals who meet these competency requirements. All too often, banking business is foreign to their data-related staff, and their business personnel are clumsy with data. In summary, banks are not staffed with the talent needed to design and develop analytical models for data mining.

Lack of innovators who can effectively leverage data: In most banks, data analysis still focuses on simple statistics, indicators, reports, and performance assessments, and has not yet explored in-depth data mining. Data analysis personnel usually possess only a shallow understanding of how data analysis can support business and drive business transformation, and therefore they are not able to proactively convert data into business insights and business development guidelines.

At the second China Digital Banking Forum, Pan Guangwei, Executive Vice Chairman of the China Banking Association, said that lack of technology talent is a significant challenge facing China's banking industry in the digital era. For this reason, Chinese commercial banks should prioritise digital talent cultivation in order to accelerate digital transformation.

Data talent empowerment is essential

Banks are facing significant constraints when it comes to digital transformation due to the scarcity of professionals who are knowledgeable in both banking and data analysis. The demand for such professionals is fairly strong while the supply is weak. Therefore, in addition to recruiting talent externally, banks should identify and cultivate existing employees who have demonstrated the potential to conduct data analysis. On a related note, as a result of advances in data analysis software, the clarity and understandability of data and code have been increased, further enabling the development of business personnel into technical personnel. These advances represent another reason why the cultivation of digital talent should be prioritised.

Recruiting such talent externally can be quite onerous, but developing data analysis talent is not as difficult. David He, a partner at Boston Consulting Group, said that many world-leading financial institutions have employed agile and innovative measures to develop talent and make related breakthroughs. The idea that underpins these measures is that the data analysis talent that banks need may not necessarily be experts in data models and algorithms. They only need to be capable of applying simple models and algorithms to actual business scenarios. Therefore, for individuals without data analysis experience, banks can adopt the scenario-specific enablement approach, which focuses mainly on how to apply data analysis to business scenarios based on limited data analysis skills training. With this approach, individuals will be motivated to learn data analysis techniques and apply the practical knowledge to their daily work as much as possible. For those with data analysis experience, continuous practices may be leveraged to enhance their data analysis capabilities and mindset and help them build a passion for and confidence in data analysis. In general, personalised training is more effective in empowering data talent.


TECHNOLOGY
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A vision for an intelligent, experience-oriented, omni-channel digital transformation for banks

Authors:
Daniel Zhi
Partner, Financial Strategy Consulting
Carol Hong
Director, Financial Strategy Consulting

Over the past dozen or so years, Chinese banks have significantly outperformed their foreign counterparts when it comes to innovation, and many new business concepts have emerged during this period. For example, concepts such as B2B, B2C, C2C, business channel transformation, and business outlet transformation were introduced in the last decade; and in the last 5 years, concepts such as multi-channel integration, B2B2C (the convergence of relationships between enterprises, customers, and banks) and smart outlets were developed. The current era is bringing us even more new concepts, such as OMO (online-merge-offline), green finance, private traffic, B2P2B2C (banks, platforms, business partners, and customers), open banking, and the omni-channel customer experience. These innovations, which are largely associated with mobile Internet and digitalisation, are reshaping the banking industry.

Digital banking

The banking industry differs from the retail industry in many respects. For the retail industry, digitalisation starts from the outside. More specifically, the development of an online retail ecosystem has driven the digitalisation of brick-and-mortar retail businesses. For the banking industry, the process runs in the opposite direction because banks' products and services are all digital.

If this is the case, then why should banks undertake digitalisation? The answer is because the preferences and behaviour of their customers have changed. In the past, customers "consumed" banks' digital products mainly via physical interactions. However, as the Internet penetrates deeper into our daily lives, customers are developing higher expectations when it comes to accessing banking services through digital channels, and they also expect financial services that are convenient and that suit their daily lives. These demands are forcing banks to shift gears from internal digitalisation to external digitalisation in order to integrate their service delivery channels.

For banks, one of the main goals of digitalisation is to integrate their external channels. However, digitalisation is not just about providing online channels — it should also convert digital capabilities into business capabilities to help the bank stand out from the competition.

Capital One serves as a wonderful example of one bank's efforts to build digital competitiveness. Capital One's digital capabilities are the strongest among US banks, and the bank has used these capabilities to develop into the country's seventh-largest bank over the past 20 or so years. Richard Fairbank, the CEO of Capital One, once said, "We are a technology company that happens to do banking."

To build and maintain its digital competitiveness, Capital One has not only digitalised its business processes and implemented AI technology; it has also leveraged digital capabilities to enable customer-specific business operations. For example, Capital One has used its digital capabilities to identify subprime customers with relatively high profitability, which account for over 35% of its total customers. Unlike other US banks, Capital One has developed a risk management policy, risk control process, and digital risk control chain specifically for this group of customers, ensuring more precise customer screening and better risk management. Its approval rate for subprime customer applications has reached 30%, and its subprime customer invitations have achieved an acceptance rate of 75%, much higher than the 5% and 15% achieved respectively by large traditional US banks. In addition, Capital One also boasts a larger scale of product customisation than traditional banks. It has introduced as many as 6,000 types of credit cards, 6 times that of traditional banks. To provide a better customer experience, Capital One employs a large number of models to predict customer demands, which allows it to offer a remarkable smart customer experience in real time. Its mobile banking apps have received the "Highest in Customer Satisfaction among US Banking Apps" award from JD Power for 2 consecutive years.

Based on the case of Capital One, Chinese banks can see that the purpose of digitalisation is not only to take business online and build powerful AI capabilities, but also to develop differentiated service delivery capabilities.

The value offered by omni-channel services

Before conducting omni-channel digital transformation, banks should clarify their value proposition and ensure that their transformation initiative is designed to achieve it. Based on our experience in serving multiple financial groups and banks, omni-channel digital transformation consists of three core elements:

1. As One: Internally, the channels of subsidiaries, business lines, and group branches should all be interconnected, including online and offline channels, as well as automatic and manual channels. Externally, the bank should be able to interface with business partners in the same ecosystem. The goal is to create a system in which channels are fully integrated.

2. Smart: Data-driven intelligence provides the foundation for omni-channel digital transformation. The use of intelligent technology to seamlessly merge channels is what separates "omni-channel" operations from "cross-channel" and "multi-channel" operations.

3. Open: Today, banks are facing challenges related to financial disintermediation, and customers' financial service needs are becoming increasingly ecosystem- and scenario-based. In the past, banks have operated in an isolated system, but now they need to consider how they can adapt to address customer needs in an open ecosystem and in various scenarios.

In summary, we believe that "As One," "Smart," and "Open" each constitute a critical component of omni-channel digital transformation. "As One" stresses the integration of internal channels; "Open" emphasises the need for the institution to adapt to external ecosystems; and "Smart" focuses on using digital measures to achieve this integration and adaptation.

Breakthroughs in omni-channel digital

Omni-channel digital transformation requires changes to business frameworks, processes, systems, and other areas. We have provided the following practical recommendations for financial institutions that are trying to achieve this transformation:

1. Develop a business framework that is omni-channel-driven

The omni-channel approach represents the customer service model of the future, but in order to successfully apply this approach, banks need to reshape their business frameworks.

Since 2015, many leading Chinese banks have been further separating their front, middle, and back offices. Some of them have also established an omni-channel department to support all their business lines, including both online and offline business lines. The banks ultimately aim to assign all channel management duties to the omni-channel department, all product development and risk management duties to the middle office, and all support functions to the back office.

However, omni-channel digital transformation cannot be achieved by simply setting up a department or restructuring an organisation. Omni-channel digital transformation is a bank-wide initiative that requires the integration of the capabilities of the front, middle and back offices. For this reason, all departments need to think carefully about how they should change to meet this goal. One obstacle lies in the fact that, during the transformation process, new tasks might arise that need to be handled by multiple departments or business lines.

For example, ideally, channel management should customise or adapt products on a channel-by-channel basis. However, when launching products through different channels, issuers rarely consider the delivery differences between the channels, or how to ensure a consistent customer experience across different channels.

In the past, customers accessed services mostly via business outlets. After electronic channels were introduced, some turned to mobile banking, online banking, or phone banking. However, banks have not fully evaluated the relationship between the customers and channels, the roles of the channels, how to allocate resources, how to measure the contribution of each channel, and how to measure and evaluate channel performance. Therefore, the priority for banks that are pursuing omni-channel digital transformation should be to more clearly ascertain what their channels' service models are. This should include identifying the preferred and alternative channels for each scenario and service — by customer level, by customer group, and then by individual customer.

Here we will use customer migration across channels as an example. Let's say that a certain bank has many business outlets and has been in business a long time. After years of operating, its business scale and customer base have reached a considerable size. Nonetheless, due to urbanisation, more customers are turning to online services, and customers' geographic locations are changing. In addition, customers now require fewer services from business outlets, and the number of customers that the business outlets serve has fallen to less than 10% of the number of customers served by outlets in previous periods. However, the bank has disregarded these trends, and it has continued to set business indicators and invest resources based on its existing business scale and customer base. For this reason, the bank's management and resource investments are destined to be ineffective, and the bank will fail to meet customers' service demands. Under such circumstances, a critical step in omni-channel digital transformation would be to gain an understanding of how customers match with channels or channel combinations. Based on this understanding, the bank could dynamically migrate its customers across channels in a continuous manner.

Of course, in addition to addressing customer experience issues, banks should work to strike a balance between costs and benefits by, for example, encouraging less profitable customers to access services via less costly channels.

In this regard, Wells Fargo can serve as a useful example. Wells Fargo boasts the broadest channel network in the US and ranks first in the country in terms of business outlets, online banking, and mobile banking. Since 2015, Wells Fargo has been driving customer migration across its channels. As part of this effort, the bank has built a channel preference model and channel cost/value model, which allow the bank to conduct continuous analysis and select the optimal service channel mix for different customer groups and even for specific customers. When designing its channel service models, the bank tried to strike a balance between customer profitability, customer channel preferences and channel costs. In addition, it developed a customer reward plan to encourage customer migration across channels. During the customer migration process, Wells Fargo continually collected customer feedback and optimised its models accordingly.

Following customer migration, Wells Fargo's business outlets require significantly fewer resources, and its banking call centres assume more proactive customer service duties, including services delivered by personal account managers. In order to improve the customer experience offered by its call centres, Wells Fargo has established 23 banking call centres that are tailored to different customer and service types. For example, for ordinary customers who need to occasionally access services through a business outlet, the relevant banking call centre can help the customer make an appointment at the business outlet and provide the customer with phone banking services. For recent immigrants who are less-than-fluent in the native language, the relevant banking call centre can assign an attendant who speaks the customer's language to provide services, and the attendant can even remotely assist a business outlet in delivering services. For US soldiers serving overseas, the relevant banking call centre has been granted special authorisation to offer more convenient access to services. In addition, the attendants who are employed at this centre have relatives serving in the army, and therefore they may be able to offer more considerate solutions to such customers.

In this way, Wells Fargo has repositioned its banking call centres across all channels, and it has taken the initiative to divide customers into different groups and set up dedicated units to deliver services by customer group. The bank's business and operations departments have also re-examined process risks based on the characteristics of the services that the banking call centres deliver to customer groups. Based on their results, they have optimised the banking call centres' business processes so that they can better serve customers. All relevant departments in the bank have been tasked with determining what they can do to adapt to the bank's omni-channel digital transformation efforts.

2. Ensure that information flows across channels and processes to enable a more consistent customer experience

The ultimate purpose of omni-channel digital transformation is to improve the customer experience.

In most cases, customers do not approach banks through fixed channels. Instead, they choose more convenient and user-friendly channels, if such channels exist. Over the past few years, most banks have focused their omni-channel digital transformation efforts on establishing online channels and self-service channels and on migrating customers to such channels. Although the overall trend indicates that an increasing number of customers prefer online and self-service channels, some individuals still need face-to-face services. The ratio of online service needs to offline service needs for each customer will continue to change, but there will never come a time when a customer demands only one or the other. Therefore, channel collaboration should be stressed when designing service processes so as to ensure a consistent and optimal customer experience.

To achieve this end, financial institutions should bear in mind two principles. First, services should be delivered via less costly channels without compromising the customer experience. Second, in order to achieve higher customer profitability and loyalty, banks should consider customers' channel preferences as well as methods for integrating and optimising cross-channel service processes.

When combing through service processes, banks should answer these questions: (1) If an online process is streamlined and requires little additional information, and its corresponding offline service process is more complicated, why is this the case? Can the processes be innovated to ensure a more consistent experience between the online and offline processes? (2) Can channel collaboration enable a better customer experience for certain services? Why does the bank only offer certain services through a single channel? Banks should try to change their mindset and look at channel construction from the customer's point of view.

Financial institutions cannot develop a consistent, high-quality customer experience overnight or with a single plan. It requires continuous effort. At the same time, banks should be prepared to encounter new headwinds as they make progress toward their goals because each channel and service comes with its own "rules."

Below we have provided an anecdote regarding a personal experience one of us had at a financial institution:

> I am a VIP customer of a Chinese bank, and the business outlet where I opened my account assigned me an account manager. However, I hardly ever went to the outlet, and the account manager only called or texted me when products were expiring or when new products or events were being launched. He did not really perform customer relationship maintenance.
>
> One day, I received a call from the bank's remote service centre. The caller said they had discovered that I almost never visited the bank's business outlet, and therefore they assigned me a "round-the-clock" remote account manager at the centre. That was a standard omni-channel manoeuvre. For customers like me, who need an account manager but rarely visit a business outlet, setting up a remote service centre makes sense because it improves efficiency and enables a better customer experience, while also cutting costs.
>
> Later, I received a promotional call for a financing product, but I soon realised I was talking to a robot rather than a person. Banks should bear in mind that approaching high-end customers via immature channels like this can be quite damaging to the customer experience. You can see from this story that creating a high-quality omni-channel customer experience is no easy feat.

3. Build double middle offices to drive digitalisation across all channels

Many state-owned banks and joint-stock commercial banks boast robust underlying data capabilities, and most of them have met the basic requirements for constructing "data middle offices." However, they typically have significant gaps in their customer behaviour data, and they have usually not sufficiently integrated external and internal data. These are the first weaknesses banks should address for their middle offices.

It is widely acknowledged in the industry that business middle offices present a significant challenge for omni-channel digital transformation. Business middle offices should leverage scenario-based business applications to deliver omni-channel services to customers in a more intelligent way. However, traditional product and service delivery models are unable to satisfy present-day customer requirements. In order to develop omni-channel customer service capabilities, banks need to accurately map customers to customer service channels and migrate customers across channels as needed. In addition, as customer demands are constantly changing, banks should digitalise their processes and adopt flexible policies that allow them to switch smoothly between different channels. This approach, which uses capabilities that involve multiple traditional organisations and functions, constitutes a new operating and service delivery model.

How to drive omni-channel digital transformation

Implementing digitalisation for the purposes of omni-channel transformation can be quite difficult. Digitalisation focuses on developing capabilities, but banks tend to approach transformation from a system, department, or service process perspective, which results in a conflict.

In the past, the biggest mistake that banks made was concentrating solely on technology. For example, many tried to achieve their digitalisation objectives by establishing a single model or applying a certain technology. Unfortunately, as they undertook these technology initiatives, they often found that it was difficult to link their back office's data with their front office's business scenarios due to resistance from business departments. It was also hard for them to ensure that the initiatives were effective.

Omni-channel digital transformation should address issues like these, which span various organisational levels and processes. Vertically, if the underlying data is not well established, applications will be affected, and the bank will not be able to successfully provide services in the relevant business scenarios. Horizontally, if departments and channels fail to effectively collaborate and pursue common objectives, implementation will become impossible.

Therefore, in order to ensure effective omni-channel digital transformation, we recommend that banks adopt a capability-focused mindset and develop more comprehensive strategies and plans.

Banks' digital capabilities can be divided into the following 8 categories, which include 40 sub-capabilities. This approach can help banks analyse their digital capabilities, determine where they fall short, and develop transformation strategies and plans.

Connected Banking: Capabilities that indicate banks' digitalisation levels

- KPMG's Connected Banking Maturity Model lists 40 sub-capabilities across 8 categories to help banks determine the maturity of their digital banking operations

Capability	Sub-capability				
Product and service innovation	Strategic planning	Product portfolio and pricing strategy	Brand positioning and strategy	Customer segmentation and positioning	Product R&D
Experience-centric E2E customer journey design	Customer centricity	Customer experience strategy	Customer experience design and customer journey reshaping	Customer value and relationship management	Customer experience measurement (CEM)
Customer demand-based operating adjustments: optimising resources for digital operations	Allocation model for operating resources	Cost and income management	Refined operations	Channel optimisation and adjustments	Risk and compliance
Integrated business partners and ecosystem	Business partner strategy and framework design	Business partner cooperation and integration	Business model optimisation	Digital disruptors and fintech	Service delivery
Data insight-driven decision making	Data analysis strategy and implementation	Enterprise data management	Technological innovation	Data analysis capability	Data security and privacy
Seamless omni-channel interaction	Customer channel preference analysis	Process management	Content management	Online-merge-offline (OMO)	Data loss prevention
Technical architecture suitable for digital transformation	Enterprise architecture	Agile development	Technical security and risk	Automation	Service efficiency
Digitalisation in respect of organisations and personnel	Organisational structure design	Human capital strategy	Leadership development	Change management	Innovation

In summary, digitalisation involves capabilities that span the entirety of an organisation or business, and therefore banks can only hope to achieve digital transformation by deploying a systematic methodology.


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Comprehensive AI empowerment

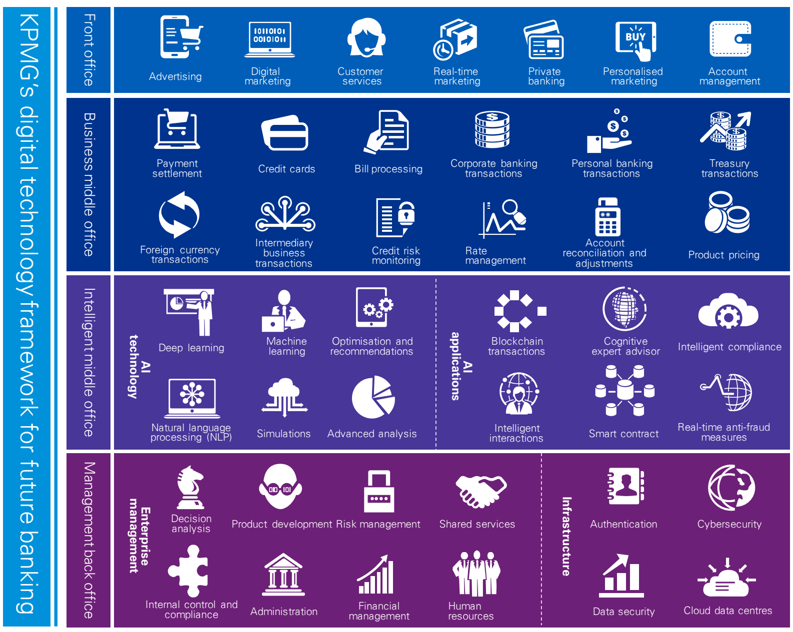
Author:
Lang Lang Xu
Head of KPMG Lighthouse

Future banking

The future banking trend represents a singular opportunity for banks to reconceptualise and rebuild the banking ecosystem and enterprise value chain. By implementing future banking concepts, banks can forge deeper connections with their customers and society as a whole at a time when technological disruption is reshaping the business world. The three critical areas of future banking include:

- **Strategic transformation:** adopting a more ecosystem-focused and professional governance approach; refreshing the public image; and implementing a top-down transformation that covers top-level strategy, ecosystem structures, and infrastructure.
- **Customer profiling:** reclassifying customers to better understand them, reshaping the value chain based on the customer experience, and rebuilding relationships with customers via “know-your-customer” (KYC) and “customer perception” efforts.
- **Technological intelligence:** leveraging intelligent technologies to convert data into “valuable information” that can be used to make banking operations more precise, and driving business growth by generating asset value from such valuable information converted from data.

KPMG has been serving China’s financial industry, and the banking sector in particular, for decades. We have been honoured to play a role in the sector's transformation and milestone events, and we have appreciated the opportunity to contribute, alongside other professional service providers, to each round of reform. KPMG Lighthouse is looking forward to partnering with Chinese banking institutions to seize the opportunities offered by the future banking model.



- **Insight intelligence:** automate data acquisition and analysis to enhance the bank’s ability to process the massive amounts of data involved in future banking operations; implement automated and intelligent customer analysis and profiling processes; and develop products, services, and the overall customer experience based on customer insights.
- **Product intelligence:** automatically reveal business rules based on data and gain insight into business risks.
- **Channel intelligence:** innovate new forms of interaction between banks and customers and promote open banking.
- **Process intelligence:** set up automated and intelligent banking processes to cut costs and enhance efficiency.

KPMG Lighthouse – Innovative Services

At a glance

KPMG Lighthouse is the firm's global big data and AI innovation centre, and its leading technological experts have been able to develop an array of innovative solutions. KPMG Lighthouse engages with frontline businesses to identify industry-specific digital transformation needs. We then design and develop digital solutions that satisfy these needs in the fields of marketing, risk, finance, operations, and other areas.

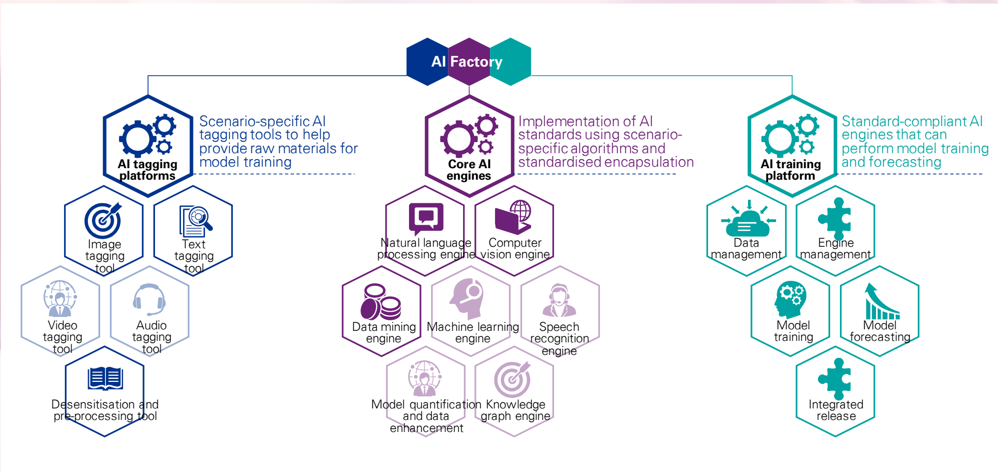
KPMG Lighthouse's ability to source solutions globally, implement those solutions at the local level, and develop its own in-house solutions is what make its approach so exceptional.

Driving business innovation with the support of KPMG's AI Factory

Talent, business expertise, data, and technology constitute the most precious assets in the era of big data and AI. Over the last 30 years, KPMG has worked with hundreds of banks in China. Recently, the firm conducted a careful study of financial institutions' digital transformation needs, learned from the leading practices of Fintech 50 enterprises, and drew lessons from thousands of past advisory service engagements. Based on the results of these efforts, KPMG has launched a comprehensive AI-powered solution for the Chinese banking sector.

AI empowerment platform – AI Factory

The AI Factory is KPMG Lighthouse's AI solution incubator. We think of the AI Factory as a production line that leverages our extensive experience to develop responsive AI solutions. We have hundreds of proven, independent AI modules at our disposal; and our production line can flexibly assemble these modules, like Lego blocks, to accelerate the implementation of AI projects without compromising the quality of the deliverables. In this way, KPMG's AI Factory can help boost frontline business innovation in a cost-effective manner.



Functional advantages

- **Full coverage:** cover all AI areas, with a focus on financial sector-oriented AI capabilities
- **Modular design:** flexibly assemble AI modules to implement specific functions
- **Fast implementation:** accelerate processing and implementation for projects
- **Integration:** combine corpus tagging tools, algorithm engines, and training/forecasting capabilities in an integrated manner

Technical advantages

- Multiple algorithms for each scenario
- Quick iteration of AI modules
- Use AI technology to conduct rapid E2E simulation tests for key business scenarios

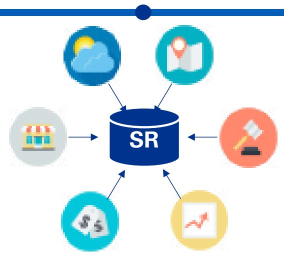
External data support – Signals R

Signals R (KPMG Signals Repository) provides lasting, stable, compliant, and reliable data, and functions as KPMG Lighthouse's external data platform. It plays a direct role in helping the AI Factory perform big data analysis training for public opinion data, commercial and industrial data, financial data, risk data, stock data, transportation data, and other types of data.

What does Signals R do?

- Data collection
- Data compliance
- Data integration
- Data sharing

Signals R's data sources



Available data types

Financial statement data	Stock data
Public opinion data	Weather forecast data
Risk data	Judicial data
Valuation data	...

Functional advantages

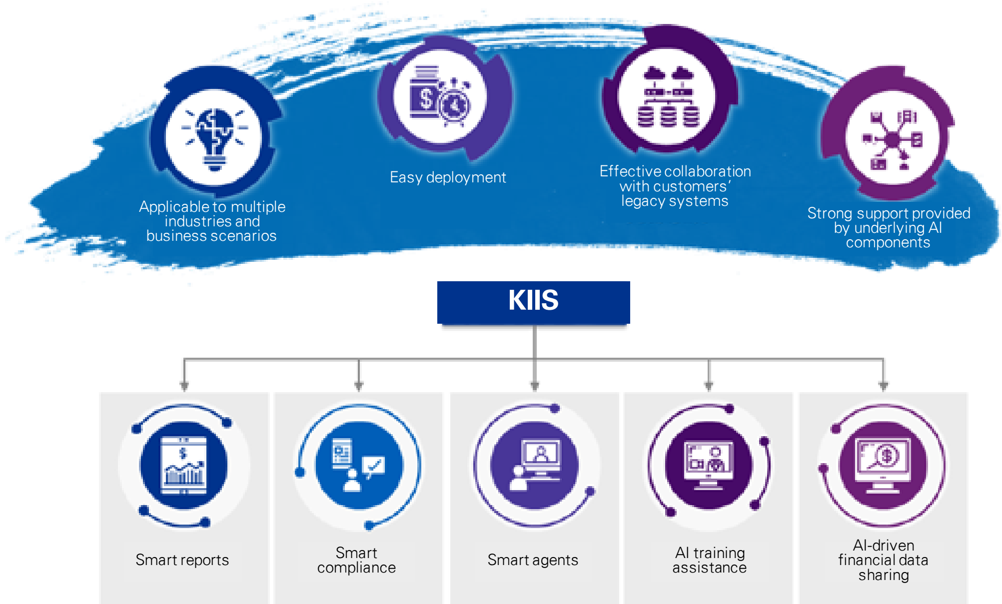
- **Legal compliance:** access reliable and legitimate data from external sources
- **Convenience:** directly access external data via the platform
- **Flexible application:** export data based on your individual specifications and retrieve external data needed for AI solutions
- **Data security:** enjoy peace of mind with effective data access controls

Technical advantages

- **Massive data processing capabilities:** relational databases and big data HBase for unstructured data processing
- **Forwarding and security capabilities (with gateway functionality):** the NGINX API can directly communicate with gateways to forward data, perform authentication, count operations, and conduct billing
- **Excellent performance:** strong buffering mechanism

KPMG Intelligent Interactions Solution – KIIS

KIIS is an intelligent human-machine interaction solution developed by KPMG Lighthouse that incorporates multi-dimensional deep knowledge structures, comprehensive natural language understanding (NLU) technology, attention mechanisms, and dialogue management and control systems. Using these technologies, KIIS is able to quickly set up scenario-specific chatbots for policy compliance inquiries, tax policy inquiries, after-sales services, smart marketing, smart reporting, smart sourcing, and other scenarios.



Functional advantages

- **DIY chatbots:** set up chatbots independently for any business field
- **Intelligent business processes:** create virtual assistants as needed to help handle various tasks
- **Professional industry knowledge:** leverage built-in industry knowledge provided by KPMG
- **Customisable AI components:** combine and arrange AI components flexibly using the web user interface
- **Comprehensive integration:** use the solution in conjunction with various IT systems and instant messaging tools

Technical advantages

- **Multi-dimensional syntax resolution:** select the most suitable algorithm from among a large number of built-in underlying NLP models to better understand users' questions or instructions
- **Online model management:** manage the lifecycle of the intention recognition model, named entity extraction model, and other related models online
- **Abundant functions:** develop functions based on project experience, such as tag management and rich text displays, to support phrasal expressions as well as dialogue containing text, image, audio, and video messages

Comprehensive partnership

AI platform delivery

- **Service objective:** deliver the entire AI platform and deploy it in the customer's environment. KPMG's business and technical professionals can help customers quickly implement the platform
- **Expected benefits:** full and extensible business scenario coverage. Customers can tailor the platform to suit their specific requirements
- **Deployment model:** locally deployed by the customer

Deployment on the financial cloud

- **Service objective:** help the customer deploy the platform on the financial cloud and subscribe to, develop, and download AI solutions using licences and accounts in the most cost-effective manner
- **Expected benefits:** access to AI capabilities and the big data lab
- **Deployment model:** private cloud

AI solution delivery

- **Service objective:** offer customers scenario-specific solutions that have been developed by KPMG professionals
- **Expected benefits:** efficient delivery of solutions that address business pain points
- **Deployment model:** locally deployed by KPMG

AI personnel training

- **Service objective:** quickly provide AI training services to the customer
- **Training method:** field training, online training, or functional trials

03 Commercial banks' financial summary (1)

			Total assets		Net assets attributable to the parent company		Total loans		Total deposits	
			Unit: Million		Unit: Million		Unit: Million		Unit: Million	
No.	**Name of bank**	**Currency**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
1	Industrial and Commercial Bank of China Co., Ltd.	RMB	30,109,436	27,699,540	2,676,186	2,330,001	16,805,050	15,458,863	22,977,655	21,408,934
2	China Construction Bank Corporation	RMB	25,436,261	23,222,693	2,216,257	1,976,463	15,022,825	13,783,053	18,366,293	17,108,678
3	Agricultural Bank of China Limited	RMB	24,878,288	22,609,471	1,948,355	1,670,294	13,360,188	11,940,685	18,542,861	17,346,290
4	Bank of China Limited	RMB	22,769,744	21,267,275	1,851,701	1,612,980	13,068,785	11,819,272	15,817,548	14,883,596
5	Postal Savings Bank of China Co., Ltd.	RMB	10,216,706	9,516,211	543,867	474,404	4,974,186	4,276,865	9,314,066	8,627,440
6	Bank of Communications Co., Ltd.	RMB	9,905,600	9,531,171	793,247	698,405	5,318,923	4,868,423	6,072,908	5,793,324
7	China Merchants Bank Co., Ltd.	RMB	7,417,240	6,745,729	611,301	540,118	4,500,199	3,941,844	4,874,981	4,427,566
8	Industrial Bank Co., Ltd.	RMB	7,145,681	6,711,657	541,360	465,953	3,450,033	2,934,082	3,794,832	3,303,512
9	Shanghai Pudong Development Bank Co., Ltd.	RMB	7,005,929	6,289,606	553,861	471,562	3,986,670	3,560,910	3,661,842	3,253,315
10	China CITIC Bank Corporation Limited	RMB	6,750,433	6,066,714	517,311	436,661	4,008,091	3,616,750	4,073,258	3,649,611
11	China Minsheng Banking Corp., Ltd.	RMB	6,681,841	5,994,822	518,845	420,074	3,512,902	3,079,488	3,637,034	3,194,441
12	China Everbright Bank Company Limited	RMB	4,733,431	4,357,332	384,982	321,488	2,720,364	2,428,487	3,017,888	2,571,961
13	Ping An Bank Co., Ltd.	RMB	3,939,070	3,418,592	312,983	240,042	2,328,909	2,003,790	2,459,768	2,149,142
14	Hua Xia Bank Co., Limited	RMB	3,020,789	2,680,580	267,588	217,141	1,877,093	1,613,516	1,671,276	1,492,492
15	Bank of Beijing Co., Ltd.	RMB	2,737,040	2,572,865	207,129	192,450	1,451,909	1,261,811	1,545,130	1,386,006
16	China Guangfa Bank Co., Ltd.	RMB	2,632,798	2,360,850	209,564	158,502	1,571,074	1,338,526	1,600,170	1,320,432
17	Bank of Shanghai Co., Ltd.	RMB	2,237,082	2,027,772	176,709	161,277	976,211	850,696	1,203,552	1,042,490
18	Bank of Jiangsu Co., Ltd.	RMB	2,065,058	1,925,823	132,792	122,624	1,044,323	889,209	1,205,562	1,093,328
19	China Zheshang Bank Co., Ltd.	RMB	1,800,786	1,646,695	126,246	100,886	1,030,171	865,233	1,143,741	974,770
20	Bank of Nanjing Co., Ltd.	RMB	1,343,435	1,243,269	86,881	77,808	570,342	480,340	863,653	770,556
21	Bank of Ningbo Co., Ltd.	RMB	1,317,717	1,116,423	100,309	80,879	531,151	429,087	779,224	646,721
22	Huishang Bank Corporation Limited	RMB	1,131,721	1,050,506	87,209	68,213	464,941	382,569	603,455	573,798
23	China Bohai Bank Co., Ltd.	RMB	1,113,117	1,034,451	82,781	55,859	710,880	567,472	647,765	606,701
24	Chongqing Rural Commercial Bank Co., Ltd.	RMB	1,029,790	950,618	87,773	70,748	437,085	381,136	673,402	616,166
25	Hengfeng Bank Co., Ltd.	RMB	1,028,768	1,046,428	86,650	(14,411)	443,245	575,008	557,435	599,338
26	Bank of Hangzhou Co., Ltd.	RMB	1,024,070	921,056	62,545	57,165	414,986	350,478	619,976	532,783
27	Shengjing Bank Co., Ltd.	RMB	1,021,481	985,433	78,556	56,458	459,255	378,437	655,071	524,941
28	Beijing Rural Commercial Bank Co., Ltd.	RMB	958,590	881,128	60,598	51,473	340,895	315,564	649,290	599,353
29	Shanghai Rural Commercial Bank Co., Ltd.	RMB	930,287	833,713	71,150	63,636	467,616	409,907	692,349	644,908
30	Xiamen International Bank Co., Ltd.	RMB	915,525	806,105	50,246	44,461	466,814	359,859	634,682	537,158
31	Guangzhou Rural Commercial Bank Co., Ltd.	RMB	894,154	763,290	68,347	52,861	479,968	377,989	658,243	542,335
32	Bank of Jinzhou Co., Ltd.	RMB	836,694	845,923	55,671	56,777	496,034	372,002	407,113	445,576
33	Zhongyuan Bank Co., Ltd.	RMB	709,417	620,444	56,276	54,857	301,002	255,866	389,732	349,387
34	Bank of Tianjin Co., Ltd.	RMB	669,401	659,340	50,395	46,999	293,946	288,789	350,996	342,877
35	Bank of Changsha Co., Ltd.	RMB	601,998	526,630	40,633	30,996	261,171	204,961	392,017	341,202
36	Harbin Bank Co., Ltd.	RMB	583,089	615,588	49,827	46,275	266,505	256,041	431,362	400,280
37	Bank of Guangzhou Co., Ltd.	RMB	561,231	513,620	40,044	37,761	295,699	239,850	362,344	320,821
38	Bank of Guiyang Co., Ltd.	RMB	560,399	503,326	39,029	34,830	205,116	170,305	337,582	312,479
39	Bank of Chengdu Co., Ltd.	RMB	558,386	492,285	35,551	31,199	231,898	185,830	386,719	352,292
40	HSBC Bank (China) Company Limited	RMB	524,797	476,324	50,616	49,379	213,081	196,776	287,272	261,802

The data quoted in this report came from the 2018 and 2019 annual reports publicly released by various banks.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

Operating Income		Net fee income		Net interest income		Net profit attributable to the parent company		Cost-to-income ratio	
Unit: Million		Unit: Million		Unit: Million		Unit: Million		% (rounded to 2 decimal places)	
2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
855,164	773,789	155,600	145,301	606,926	572,518	312,224	297,676	23.28%	23.91%
705,629	658,891	137,284	123,035	510,680	486,278	266,733	254,655	26.53%	26.42%
627,268	598,588	86,926	78,141	486,871	477,760	212,098	202,783	30.49%	31.27%
549,182	504,107	89,612	87,208	374,250	359,706	187,405	180,086	28.00%	28.09%
276,809	261,245	17,085	14,434	240,224	234,122	60,933	52,311	56.57%	57.60%
232,472	212,654	43,625	41,237	144,083	130,908	77,281	73,630	30.11%	31.50%
269,703	248,555	71,493	66,480	173,090	160,384	92,867	80,560	32.09%	31.02%
181,308	158,287	49,679	42,978	102,988	95,657	65,868	60,620	26.03%	26.89%
190,688	171,542	40,447	39,009	128,850	111,844	58,911	55,914	22.58%	25.12%
187,584	164,854	46,384	45,148	127,271	104,772	48,015	44,513	27.70%	30.57%
180,441	156,769	52,295	48,131	97,943	76,680	53,819	50,327	26.74%	30.07%
132,812	110,244	23,169	36,894	101,918	61,043	37,354	33,659	27.27%	28.79%
137,958	116,716	36,743	31,297	89,961	74,745	28,195	24,818	29.61%	30.32%
84,734	72,227	18,016	17,758	64,561	51,538	21,905	20,854	30.59%	32.58%
63,129	55,488	7,386	8,879	49,579	45,553	21,441	20,002	23.23%	25.19%
76,312	59,320	35,144	33,931	33,613	22,622	12,581	10,700	30.79%	36.18%
49,800	43,888	6,567	5,980	30,321	29,937	20,298	18,034	19.98%	20.52%
44,974	35,224	6,023	5,222	25,537	25,447	14,619	13,065	25.64%	28.68%
46,364	39,022	4,579	4,252	33,874	26,386	12,925	11,490	26.24%	29.99%
32,442	27,406	4,044	3,588	21,380	21,567	12,453	11,073	27.39%	28.61%
35,081	28,930	7,784	5,794	19,564	19,120	13,714	11,186	34.32%	34.44%
31,287	26,951	4,164	3,706	24,726	17,967	9,819	8,747	22.76%	23.02%
28,282	23,175	4,226	6,357	22,910	15,228	8,336	7,080	29.09%	35.46%
26,630	26,092	2,322	2,066	23,291	20,014	9,760	9,058	28.54%	30.35%
13,763	16,035	1,612	2,676	9,973	11,737	661	535	56.80%	47.98%
21,409	17,054	1,665	1,183	15,613	13,992	6,602	5,412	28.71%	29.91%
21,002	15,885	1,155	627	16,350	12,418	5,443	5,129	21.31%	24.13%
18,839	19,530	1,254	1,230	16,619	17,583	8,229	7,252	34.31%	33.57%
21,271	20,145	2,762	3,241	15,059	15,029	8,846	7,308	30.37%	32.00%
16,884	13,230	1,833	1,760	13,035	10,145	5,152	4,907	25.47%	25.55%
23,657	20,667	1,682	1,548	18,564	13,272	7,520	6,526	27.25%	28.05%
23,170	21,283	232	758	19,345	19,101	(959)	(4,593)	15.02%	15.91%
18,935	16,784	1,866	1,280	15,610	13,744	3,164	2,415	38.45%	40.59%
17,054	12,138	2,266	1,538	13,223	6,706	4,548	4,181	22.20%	27.18%
17,017	13,941	1,773	1,580	12,278	11,550	5,080	4,479	30.72%	34.12%
15,094	14,325	2,226	2,391	10,836	10,127	3,558	5,549	32.71%	30.88%
13,379	10,935	767	366	10,443	10,117	4,324	3,769	28.15%	29.76%
14,668	12,645	968	1,219	12,088	11,066	5,800	5,137	26.30%	26.73%
12,725	11,590	427	308	10,321	9,674	5,551	4,649	26.52%	25.77%
12,932	12,621	1,886	1,763	8,273	8,923	4,455	3,894	58.47%	53.99%

03 Commercial banks' financial summary (2)

No.	Name of bank	Currency	Return on average equity % (rounded to 2 decimal places) 2019	2018	Net interest spread % (rounded to 2 decimal places) 2019	2018	Net interest margin % (rounded to 2 decimal places) 2019	2018	Non-performing loan (NPL) ratio % (rounded to 2 decimal places) 2019	2018
1	Industrial and Commercial Bank of China Co., Ltd.	RMB	13.05%	13.79%	2.08%	2.16%	2.24%	2.30%	1.43%	1.52%
2	China Construction Bank Corporation	RMB	13.18%	14.04%	2.12%	2.18%	2.26%	2.31%	1.42%	1.46%
3	Agricultural Bank of China Limited	RMB	12.43%	13.66%	2.03%	2.20%	2.17%	2.33%	1.40%	1.59%
4	Bank of China Limited	RMB	11.45%	12.06%	2.69%	2.25%	1.84%	1.90%	1.37%	1.42%
5	Postal Savings Bank of China Co., Ltd.	RMB	13.10%	12.31%	2.45%	2.64%	2.50%	2.67%	0.86%	0.86%
6	Bank of Communications Co., Ltd.	RMB	11.20%	11.17%	1.48%	1.39%	1.58%	1.51%	1.47%	1.49%
7	China Merchants Bank Co., Ltd.	RMB	16.84%	16.57%	2.48%	2.44%	2.59%	2.57%	1.16%	1.36%
8	Industrial Bank Co., Ltd.	RMB	14.02%	14.27%	1.64%	1.54%	1.94%	1.83%	1.54%	1.57%
9	Shanghai Pudong Development Bank Co., Ltd.	RMB	12.29%	13.14%	2.02%	1.87%	2.08%	1.94%	2.05%	1.92%
10	China CITIC Bank Corporation Limited	RMB	11.07%	11.39%	2.04%	1.85%	2.12%	1.94%	1.65%	1.77%
11	China Minsheng Banking Corp., Ltd.	RMB	12.40%	12.94%	1.87%	1.64%	2.11%	1.73%	1.56%	1.76%
12	China Everbright Bank Company Limited	RMB	11.77%	11.55%	2.18%	1.50%	2.31%	1.74%	1.56%	1.59%
13	Ping An Bank Co., Ltd.	RMB	11.30%	11.49%	2.53%	2.26%	2.62%	2.35%	1.65%	1.75%
14	Hua Xia Bank Co., Limited	RMB	10.61%	12.67%	2.10%	1.80%	2.24%	1.95%	1.83%	1.85%
15	Bank of Beijing Co., Ltd.	RMB	11.45%	11.65%	2.07%	2.57%	2.07%	2.28%	1.40%	1.46%
16	China Guangfa Bank Co., Ltd.	RMB	7.42%	8.82%	1.34%	1.06%	1.46%	1.11%	1.55%	1.45%
17	Bank of Shanghai Co., Ltd.	RMB	12.94%	12.67%	1.93%	1.81%	1.71%	1.76%	1.16%	1.14%
18	Bank of Jiangsu Co., Ltd.	RMB	12.65%	12.43%	1.72%	1.37%	1.94%	1.59%	1.38%	1.39%
19	China Zheshang Bank Co., Ltd.	RMB	12.92%	14.17%	2.08%	1.76%	2.34%	1.93%	1.37%	1.20%
20	Bank of Nanjing Co., Ltd.	RMB	16.53%	16.96%	1.98%	1.85%	1.85%	1.89%	0.89%	0.89%
21	Bank of Ningbo Co., Ltd.	RMB	17.10%	18.72%	2.41%	2.20%	1.84%	1.97%	0.78%	0.78%
22	Huishang Bank Corporation Limited	RMB	14.60%	15.08%	2.32%	2.21%	2.51%	2.37%	1.04%	1.04%
23	China Bohai Bank Co., Ltd.	RMB	13.93%	13.59%	2.03%	1.46%	2.21%	1.54%	1.78%	1.84%
24	Chongqing Rural Commercial Bank Co., Ltd.	RMB	12.82%	13.47%	2.16%	2.40%	2.33%	2.45%	1.25%	1.29%
25	Hengfeng Bank Co., Ltd.	RMB	1.83%	N/A	0.91%	1.05%	0.99%	1.03%	3.38%	28.44%
26	Bank of Hangzhou Co., Ltd.	RMB	12.15%	11.01%	1.91%	1.66%	1.83%	1.71%	1.34%	1.45%
27	Shengjing Bank Co., Ltd.	RMB	7.99%	9.38%	1.59%	1.33%	1.76%	1.43%	1.75%	1.71%
28	Beijing Rural Commercial Bank Co., Ltd.	RMB	14.69%	15.05%	1.79%	2.02%	1.91%	2.18%	0.95%	0.36%
29	Shanghai Rural Commercial Bank Co., Ltd.	RMB	13.14%	13.25%	1.74%	1.93%	1.84%	2.01%	0.90%	1.13%
30	Xiamen International Bank Co., Ltd.	RMB	10.82%	11.52%	1.63%	1.79%	1.64%	1.56%	0.71%	0.73%
31	Guangzhou Rural Commercial Bank Co., Ltd.	RMB	13.24%	13.13%	2.66%	2.28%	2.61%	2.12%	1.73%	1.27%
32	Bank of Jinzhou Co., Ltd.	RMB	-2.07%	-9.86%	2.29%	1.93%	2.48%	2.46%	7.70%	4.99%
33	Zhongyuan Bank Co., Ltd.	RMB	5.52%	5.43%	2.56%	2.81%	2.65%	2.83%	2.23%	2.44%
34	Bank of Tianjin Co., Ltd.	RMB	9.32%	9.15%	1.88%	1.23%	2.21%	1.59%	1.96%	1.65%
35	Bank of Changsha Co., Ltd.	RMB	15.61%	16.91%	2.55%	2.34%	2.42%	2.45%	1.22%	1.29%
36	Harbin Bank Co., Ltd.	RMB	7.41%	12.68%	1.87%	1.67%	1.95%	1.87%	1.99%	1.73%
37	Bank of Guangzhou Co., Ltd.	RMB	11.35%	12.23%	2.51%	2.07%	2.30%	2.25%	1.19%	0.86%
38	Bank of Guiyang Co., Ltd.	RMB	17.41%	18.88%	2.36%	2.25%	2.40%	2.33%	1.45%	1.35%
39	Bank of Chengdu Co., Ltd.	RMB	16.63%	16.04%	2.24%	2.21%	2.16%	2.21%	1.43%	1.54%
40	HSBC Bank (China) Company Limited	RMB	8.91%	8.09%	1.52%	1.80%	1.71%	1.97%	N.A.	N.A.

The data quoted in this report came from the 2018 and 2019 annual reports publicly released by various banks.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

Allowance to total loans ratio		Provision coverage ratio		Capital adequacy ratio		Tier 1 capital adequacy ratio		Core tier 1 capital adequacy ratio	
% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)	
2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
2.86%	2.68%	199.32%	175.76%	16.77%	15.39%	14.27%	13.45%	13.20%	12.98%
3.23%	3.04%	227.69%	208.37%	17.52%	17.19%	14.68%	14.42%	13.88%	13.83%
4.06%	4.02%	288.75%	252.18%	16.13%	15.12%	12.53%	12.13%	11.24%	11.55%
2.97%	3.07%	182.86%	181.97%	15.59%	14.97%	12.79%	12.27%	11.30%	11.41%
3.35%	2.99%	389.45%	346.80%	13.52%	13.76%	10.87%	10.88%	9.90%	9.77%
2.53%	2.59%	171.77%	173.13%	14.83%	14.37%	12.85%	12.21%	11.22%	11.16%
4.97%	4.88%	426.78%	358.18%	15.54%	15.68%	12.69%	12.62%	11.95%	11.78%
3.07%	3.26%	199.13%	207.28%	13.36%	12.20%	10.56%	9.85%	9.47%	9.30%
2.74%	2.97%	133.73%	154.88%	13.86%	13.67%	11.53%	10.79%	10.26%	10.09%
2.90%	2.80%	175.25%	157.98%	12.44%	12.47%	10.20%	9.43%	8.69%	8.62%
2.43%	2.36%	155.50%	134.05%	13.17%	11.75%	10.28%	9.16%	8.89%	8.93%
2.83%	2.80%	181.62%	176.16%	13.47%	13.01%	11.08%	10.09%	9.20%	9.15%
3.01%	2.71%	183.12%	155.24%	13.22%	11.50%	10.54%	9.39%	9.11%	8.54%
2.59%	2.93%	141.92%	158.59%	13.89%	13.19%	11.91%	10.43%	9.25%	9.47%
3.15%	3.18%	224.69%	217.51%	12.28%	12.07%	10.09%	9.85%	9.22%	8.93%
2.69%	2.20%	173.41%	151.06%	12.56%	11.78%	10.65%	9.41%	8.35%	9.41%
3.90%	3.80%	337.15%	332.95%	13.84%	13.00%	10.92%	11.22%	9.66%	9.83%
3.21%	2.84%	232.79%	203.84%	12.89%	12.55%	10.10%	10.28%	8.59%	8.61%
3.03%	3.25%	220.80%	270.37%	14.24%	13.38%	10.94%	9.83%	9.64%	8.38%
3.73%	4.11%	417.73%	462.68%	13.03%	12.99%	10.01%	9.74%	8.87%	8.51%
4.10%	4.08%	524.08%	521.83%	15.57%	14.86%	11.30%	11.22%	9.62%	9.16%
3.15%	3.15%	303.86%	302.22%	13.21%	11.65%	10.85%	9.18%	8.85%	8.37%
3.34%	3.44%	187.73%	186.96%	13.07%	11.77%	10.63%	8.61%	8.06%	8.61%
4.75%	4.50%	380.31%	347.79%	14.88%	13.52%	12.44%	10.96%	12.42%	10.95%
4.08%	15.56%	120.83%	54.70%	12.26%	-11.14%	9.68%	-13.65%	9.68%	-13.65%
4.23%	3.71%	316.71%	256.00%	13.54%	13.15%	9.62%	9.91%	8.08%	8.17%
2.82%	2.75%	160.90%	160.81%	14.54%	11.86%	11.48%	8.52%	11.48%	8.52%
3.78%	3.80%	398.24%	1068.87%	15.87%	15.26%	12.64%	11.82%	12.64%	11.82%
3.90%	3.87%	431.31%	342.28%	15.57%	15.86%	12.62%	12.70%	12.59%	12.69%
2.31%	2.26%	323.47%	310.59%	12.26%	12.77%	9.41%	9.23%	9.04%	8.86%
3.61%	3.52%	208.09%	276.64%	14.23%	14.28%	11.65%	10.53%	9.96%	10.50%
8.86%	6.18%	115.01%	123.75%	8.09%	9.12%	6.47%	7.43%	5.15%	6.07%
3.39%	3.81%	151.77%	156.11%	13.02%	14.37%	10.31%	11.49%	8.51%	9.44%
4.36%	4.13%	220.58%	250.37%	15.24%	14.53%	10.63%	9.84%	10.62%	9.83%
3.42%	3.56%	279.98%	275.40%	13.25%	12.24%	10.76%	9.55%	9.16%	9.53%
3.04%	2.94%	152.50%	169.88%	12.53%	12.15%	10.24%	9.75%	10.22%	9.74%
2.59%	1.99%	217.30%	231.26%	12.42%	13.38%	10.14%	11.24%	10.14%	11.24%
4.23%	3.60%	291.86%	266.05%	13.61%	12.97%	10.77%	11.22%	9.39%	9.61%
3.63%	3.64%	253.88%	237.01%	15.69%	14.08%	10.14%	11.15%	10.13%	11.14%
1.53%	1.51%	376.10%	353.40%	16.20%	18.30%	15.50%	17.60%	15.50%	17.60%

No.	Name of bank	Currency	Total assets (Unit: Million) 2019	Total assets (Unit: Million) 2018	Net assets attributable to the parent company (Unit: Million) 2019	Net assets attributable to the parent company (Unit: Million) 2018	Total loans (Unit: Million) 2019	Total loans (Unit: Million) 2018	Total deposits (Unit: Million) 2019	Total deposits (Unit: Million) 2018
41	Bank of Chongqing Co., Ltd.	RMB	501,232	450,369	36,949	33,051	247,349	212,431	281,049	256,394
42	Bank of Zhengzhou Co., Ltd.	RMB	500,478	466,142	38,590	36,650	196,594	160,062	292,126	267,758
43	Chengdu Rural Commercial Bank Co., Ltd.	RMB	484,987	623,053	40,311	35,649	242,479	251,458	387,497	421,001
44	Dongguan Rural Commercial Bank Co., Ltd.	RMB	461,209	408,157	33,814	30,102	198,971	157,375	314,217	246,179
45	Jiangxi Bank Co., Ltd.	RMB	456,119	419,064	34,456	32,226	210,783	171,082	284,549	260,449
46	Shenzhen Rural Commercial Bank Co., Ltd.	RMB	422,001	316,897	29,881	26,769	210,146	161,828	341,361	262,132
47	Bank of Dalian Co., Ltd.	RMB	413,121	418,573	25,695	26,590	202,038	181,015	283,319	262,416
48	Bank of Guizhou Co., Ltd.	RMB	409,389	341,203	33,889	25,459	180,266	140,474	260,266	220,084
49	Jiangsu Jiangnan Rural Commercial Bank Co., Ltd.	RMB	408,032	379,796	26,716	24,349	197,233	163,769	239,457	209,046
50	Hankou Bank Co., Ltd.	RMB	405,740	319,296	21,805	19,986	172,611	137,188	250,341	188,829
51	Bank of Jilin Co., Ltd.	RMB	376,369	361,852	31,194	24,899	254,459	219,279	293,799	263,513
52	Bank of Qingdao Co., Ltd.	RMB	373,622	317,659	29,915	26,985	173,568	126,908	215,425	177,911
53	Bank of Dongguan Co., Ltd.	RMB	372,008	314,499	22,718	20,639	190,676	145,288	267,642	227,961
54	Bank of Hebei Co., Ltd.	RMB	367,446	342,253	27,122	25,246	217,233	185,797	250,111	224,898
55	Huarong Xiangjiang Bank Corporation Limited	RMB	366,777	335,452	23,919	21,891	208,033	183,046	227,684	209,362
56	Bank of Jiujiang Co., Ltd.	RMB	363,352	311,623	24,726	23,063	178,956	141,830	255,263	217,934
57	Bank of Suzhou Co., Ltd.	RMB	343,472	311,086	27,802	23,563	160,728	141,327	222,114	192,675
58	Qingdao Rural Commercial Bank Corporation	RMB	341,667	294,141	24,415	20,514	179,107	136,974	218,806	192,610
59	Bank of Lanzhou Co., Ltd.	RMB	336,683	303,902	21,463	21,014	176,867	163,766	271,014	238,216
60	Bank of Kunlun Co., Ltd.	RMB	336,484	351,138	32,682	30,392	146,166	126,794	184,160	155,805
61	Bank of Gansu Co., Ltd.	RMB	335,044	328,622	24,657	25,216	170,449	160,885	236,869	210,723
62	Guangdong Shunde Rural Commercial Bank Co., Ltd.	RMB	331,140	303,208	28,748	26,912	160,577	138,235	232,014	202,097
63	Tianjin Rural Commercial Bank Co., Ltd.	RMB	319,683	317,256	29,105	24,678	154,438	139,286	218,288	208,267
64	Guilin Bank Co., Ltd.	RMB	312,273	267,288	19,838	17,264	170,381	139,509	219,510	185,868
65	Qilu Bank Co., Ltd.	RMB	307,520	265,737	22,461	20,695	140,621	118,624	211,274	183,978
66	WeBank Co., Ltd.	RMB	291,236	220,037	16,119	11,940	158,643	116,497	237,163	154,786
67	Chang'An Bank Co., Ltd.	RMB	287,737	241,257	15,657	14,540	153,628	118,067	203,364	168,637
68	Bank of Xi'An Co., Ltd.	RMB	278,283	243,490	23,620	19,952	153,504	132,703	172,824	155,977
69	Bank of Luoyang Co., Ltd.	RMB	273,985	253,416	19,646	18,232	107,594	89,129	151,820	132,185
70	Fudian Bank Co., Ltd.	RMB	267,420	247,418	19,374	15,085	139,382	118,006	162,075	144,931
71	Hubei Bank Co., Ltd.	RMB	262,109	242,479	25,063	20,610	128,378	111,133	179,869	160,582
72	Longjiang Bank Co., Ltd.	RMB	258,970	273,866	17,105	15,985	100,964	83,147	167,774	146,298
73	Jinshang Bank Co., Ltd.	RMB	247,571	227,248	20,135	15,970	115,973	102,135	155,322	144,897
74	Xiamen Bank Co., Ltd.	RMB	246,868	232,414	15,295	13,704	108,480	83,357	136,766	120,864
75	Hangzhou United Rural Commercial Bank Co., Ltd.	RMB	236,546	209,941	19,943	17,875	154,437	130,418	182,305	158,862
76	Guangxi Beibu Gulf Bank Co., Ltd.	RMB	235,030	189,147	17,327	14,325	121,538	93,822	154,201	120,796
77	Standard Chartered Bank (China) Limited	RMB	234,935	215,197	23,762	22,312	103,175	88,781	140,108	121,577
78	Zhejiang Chouzhou Commercial Bank Co., Ltd.	RMB	234,253	212,902	17,539	16,160	112,239	91,185	149,516	126,497
79	Guangdong Huaxing Bank Co., Ltd.	RMB	233,141	196,768	15,687	13,801	113,624	88,637	159,169	130,550
80	Bank of Wenzhou Co., Ltd.	RMB	230,472	227,782	13,017	13,734	121,967	105,893	154,375	135,648
81	Bank of Zhangjiakou Co., Ltd.	RMB	225,475	192,963	14,486	13,336	111,564	90,750	187,457	143,671
82	Weihai City Commercial Bank Co., Ltd.	RMB	224,477	203,332	17,706	13,600	92,454	75,209	142,201	115,784
83	Bank of Taizhou Co., Ltd.	RMB	222,960	189,351	18,791	15,559	151,535	124,974	174,152	148,328
84	Sichuan Tianfu Bank Co., Ltd.	RMB	211,026	206,851	16,561	15,132	114,387	90,624	144,274	130,163
85	Bank of Langfang Co., Ltd.	RMB	209,653	204,771	19,201	14,175	98,143	74,481	153,538	125,949
86	Chongqing Three Gorges Bank Co., Ltd.	RMB	208,385	204,678	15,442	13,737	85,333	64,719	133,809	122,564
87	Shanxi Qinnong Rural Commercial Bank Co., Ltd.	RMB	207,912	199,925	14,650	13,769	109,694	111,863	134,120	121,771
88	Zhejiang Tailong Commercial Bank Co., Ltd.	RMB	207,775	168,562	15,842	13,093	135,626	109,310	140,565	111,783
89	Guangdong Nanyue Bank Co., Ltd.	RMB	206,268	204,923	16,849	15,041	109,830	106,845	154,612	122,753
90	China Resources Bank of Zhuhai Co., Ltd.	RMB	201,677	174,510	15,658	12,722	105,232	87,847	133,656	112,275

The data quoted in this report came from the 2018 and 2019 annual reports publicly released by various banks.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

Operating Income		Net fee income		Net interest income		Net profit attributable to the parent company		Cost-to-income ratio	
Unit: Million		Unit: Million		Unit: Million		Unit: Million		% (rounded to 2 decimal places)	
2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
11,791	10,630	1,258	1,342	8,839	6,876	4,207	3,770	22.27%	22.93%
13,487	11,157	1,610	1,874	8,984	6,643	3,285	3,059	26.46%	27.96%
12,438	11,434	1,097	1,129	9,762	8,579	4,732	4,554	29.45%	33.81%
11,808	9,680	1,366	1,335	8,490	8,017	4,936	4,505	28.32%	31.39%
12,953	11,351	667	653	10,619	8,916	2,051	2,734	26.08%	30.48%
9,681	8,760	397	369	7,321	7,072	4,793	4,322	29.99%	30.29%
8,000	7,803	1,031	1,117	5,698	6,534	1,251	1,631	38.45%	40.03%
10,706	8,770	95	21	9,871	8,326	3,564	2,877	30.84%	33.91%
10,364	9,005	1,161	1,407	8,566	1,453	2,659	2,357	27.63%	28.78%
6,473	6,076	888	614	4,293	4,002	2,417	1,892	34.34%	34.04%
9,984	8,719	686	724	9,044	7,748	1,211	1,157	40.71%	41.72%
9,616	7,372	1,217	866	6,846	4,464	2,285	2,023	31.88%	32.97%
9,083	7,495	823	719	6,973	6,324	2,826	2,457	28.97%	32.41%
8,028	6,773	701	607	7,196	6,073	1,895	1,963	31.08%	36.15%
9,346	9,542	(710)	(337)	9,176	8,764	3,023	2,710	25.20%	25.56%
9,549	7,866	416	279	7,277	5,568	1,837	1,758	28.12%	27.86%
9,424	7,737	1,073	915	6,064	6,591	2,473	2,242	31.68%	37.73%
8,729	7,462	199	149	7,090	6,530	2,825	2,419	30.25%	32.23%
7,618	6,800	244	227	5,720	6,513	1,464	2,248	30.99%	33.29%
7,124	6,710	32	157	4,265	5,934	3,587	3,274	28.65%	28.21%
7,233	8,872	253	166	5,288	7,128	509	3,435	31.53%	24.72%
8,557	7,565	798	680	6,358	6,856	3,758	3,198	30.01%	31.26%
8,519	7,977	122	190	7,816	7,648	2,457	2,444	29.91%	31.19%
7,281	6,529	27	513	5,419	4,805	1,171	1,549	34.92%	31.61%
7,407	6,402	556	365	5,767	5,593	2,338	2,152	29.43%	31.49%
14,870	10,030	5,292	4,424	9,464	5,520	3,950	2,474	25.03%	35.84%
7,584	5,538	(305)	518	6,202	2,987	1,568	1,528	29.59%	34.83%
6,845	5,976	582	783	5,621	5,104	2,675	2,362	25.68%	27.97%
7,562	7,216	173	236	7,388	7,011	1,797	1,483	20.65%	20.35%
5,088	5,114	114	257	4,562	4,389	379	113	40.64%	40.64%
8,001	6,739	253	248	7,694	6,428	1,950	1,752	24.49%	25.53%
5,170	5,096	725	655	4,043	3,694	1,138	1,530	34.66%	34.30%
5,089	4,753	625	424	3,245	3,179	1,484	1,310	34.79%	35.75%
4,509	4,186	328	291	3,383	4,157	1,711	1,409	29.13%	27.78%
7,930	7,504	273	348	7,280	6,826	2,144	2,033	30.63%	29.58%
4,783	3,379	299	182	4,374	3,048	1,144	925	30.46%	33.14%
6,911	6,555	1,268	1,172	4,550	4,618	1,397	2,013	57.30%	56.58%
6,560	4,943	(363)	(44)	3,430	1,331	1,749	1,490	32.13%	39.88%
5,874	4,497	202	343	5,546	3,821	2,036	1,508	34.03%	37.56%
4,231	3,618	455	715	3,601	2,707	693	510	42.09%	44.80%
6,795	5,590	(328)	29	5,662	2,534	1,842	1,905	28.86%	33.81%
4,938	3,846	272	73	4,523	3,552	1,519	956	28.45%	33.85%
9,745	9,373	136	260	7,747	7,305	3,924	4,213	36.67%	31.95%
4,776	4,709	671	767	3,831	3,789	1,429	1,357	38.11%	34.60%
5,143	5,250	149	268	4,483	4,307	1,512	1,570	33.31%	36.62%
4,492	3,778	196	129	3,502	3,610	1,605	1,280	30.61%	35.72%
5,138	5,475	57	40	2,764	2,319	1,339	971	41.24%	39.29%
9,613	8,038	695	782	7,255	5,716	3,155	2,761	44.90%	47.08%
5,648	5,316	548	466	4,970	4,727	1,637	1,431	38.22%	40.52%
5,867	4,856	405	496	5,008	4,125	1,746	1,367	34.39%	37.12%

03 Commercial banks' financial summary (2)

			Return on average equity		Net interest spread		Net interest margin		Non-performing loan (NPL) ratio	
			% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)	
No.	**Name of bank**	**Currency**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
41	Bank of Chongqing Co., Ltd.	RMB	13.00%	12.80%	2.03%	1.78%	2.11%	1.79%	1.27%	1.36%
42	Bank of Zhengzhou Co., Ltd.	RMB	9.30%	10.03%	2.28%	1.77%	2.16%	1.70%	2.37%	2.47%
43	Chengdu Rural Commercial Bank Co., Ltd.	RMB	12.13%	12.88%	1.65%	1.30%	1.76%	1.37%	1.76%	1.70%
44	Dongguan Rural Commercial Bank Co., Ltd.	RMB	15.68%	16.68%	1.19%	2.20%	2.03%	2.22%	1.00%	1.27%
45	Jiangxi Bank Co., Ltd.	RMB	6.15%	9.95%	2.53%	2.09%	2.59%	2.31%	2.26%	1.91%
46	Shenzhen Rural Commercial Bank Co., Ltd.	RMB	17.00%	17.40%	2.61%	3.03%	2.50%	2.99%	1.15%	1.14%
47	Bank of Dalian Co., Ltd.	RMB	4.78%	6.41%	1.42%	1.38%	1.66%	1.63%	3.93%	2.29%
48	Bank of Guizhou Co., Ltd.	RMB	12.01%	12.36%	2.75%	2.66%	2.82%	2.82%	1.18%	1.36%
49	Jiangsu Jiangnan Rural Commercial Bank Co., Ltd.	RMB	10.41%	10.31%	2.82%	1.49%	2.58%	0.54%	1.70%	1.81%
50	Hankou Bank Co., Ltd.	RMB	11.55%	9.96%	1.45%	1.79%	1.34%	1.57%	1.75%	2.11%
51	Bank of Jilin Co., Ltd.	RMB	4.70%	4.89%	2.41%	2.01%	2.56%	2.17%	4.31%	2.82%
52	Bank of Qingdao Co., Ltd.	RMB	8.27%	8.36%	2.10%	1.67%	2.13%	1.63%	1.65%	1.68%
53	Bank of Dongguan Co., Ltd.	RMB	13.20%	12.78%	2.25%	1.97%	2.22%	2.16%	1.27%	1.39%
54	Bank of Hebei Co., Ltd.	RMB	8.09%	8.07%	2.66%	1.93%	2.45%	1.95%	1.84%	2.53%
55	Huarong Xiangjiang Bank Corporation Limited	RMB	13.13%	12.96%	2.52%	3.03%	2.67%	2.98%	1.57%	1.58%
56	Bank of Jiujiang Co., Ltd.	RMB	7.69%	8.66%	2.36%	2.49%	2.56%	2.65%	1.71%	1.99%
57	Bank of Suzhou Co., Ltd.	RMB	9.85%	10.08%	2.29%	1.87%	2.09%	2.11%	1.53%	1.68%
58	Qingdao Rural Commercial Bank Corporation	RMB	12.38%	12.86%	2.75%	2.29%	2.61%	2.49%	1.46%	1.57%
59	Bank of Lanzhou Co., Ltd.	RMB	6.89%	11.34%	1.90%	2.79%	1.92%	2.62%	2.44%	2.25%
60	Bank of Kunlun Co., Ltd.	RMB	11.31%	11.09%	1.61%	1.65%	1.49%	1.90%	1.09%	1.36%
61	Bank of Gansu Co., Ltd.	RMB	2.05%	16.43%	1.74%	2.07%	1.96%	2.37%	2.45%	2.29%
62	Guangdong Shunde Rural Commercial Bank Co., Ltd.	RMB	13.50%	12.50%	2.13%	2.13%	2.18%	2.33%	1.00%	1.27%
63	Tianjin Rural Commercial Bank Co., Ltd.	RMB	9.14%	10.37%	2.86%	2.96%	2.80%	2.86%	2.45%	2.47%
64	Guilin Bank Co., Ltd.	RMB	6.31%	9.83%	2.59%	3.01%	2.26%	2.49%	1.75%	1.74%
65	Qilu Bank Co., Ltd.	RMB	11.43%	11.78%	2.13%	2.07%	2.23%	2.27%	1.49%	1.64%
66	WeBank Co., Ltd.	RMB	28.15%	24.41%	3.64%	3.71%	3.83%	3.86%	1.24%	0.51%
67	Chang'An Bank Co., Ltd.	RMB	11.18%	10.98%	2.49%	1.51%	2.52%	1.46%	1.72%	1.78%
68	Bank of Xi'An Co., Ltd.	RMB	11.94%	12.61%	2.12%	2.00%	2.26%	2.23%	1.18%	1.20%
69	Bank of Luoyang Co., Ltd.	RMB	9.52%	8.55%	3.99%	3.40%	3.59%	3.65%	2.08%	2.78%
70	Fudian Bank Co., Ltd.	RMB	2.20%	0.76%	1.90%	1.82%	2.06%	1.95%	3.10%	4.25%
71	Hubei Bank Co., Ltd.	RMB	8.54%	9.83%	3.83%	3.56%	3.70%	3.45%	1.99%	2.21%
72	Longjiang Bank Co., Ltd.	RMB	6.88%	9.99%	1.51%	1.51%	1.69%	1.69%	2.05%	2.14%
73	Jinshang Bank Co., Ltd.	RMB	8.20%	8.70%	1.68%	1.68%	1.61%	1.70%	1.86%	1.87%
74	Xiamen Bank Co., Ltd.	RMB	11.80%	10.94%	1.43%	2.53%	1.51%	2.27%	12.76%	1.33%
75	Hangzhou United Rural Commercial Bank Co., Ltd.	RMB	11.34%	12.09%	3.26%	3.14%	3.19%	3.39%	1.05%	1.33%
76	Guangxi Beibu Gulf Bank Co., Ltd.	RMB	7.23%	7.11%	1.88%	2.51%	2.09%	2.17%	1.47%	1.53%
77	Standard Chartered Bank (China) Limited	RMB	6.10%	9.50%	1.99%	2.07%	2.16%	2.23%	1.17%	0.98%
78	Zhejiang Chouzhou Commercial Bank Co., Ltd.	RMB	10.42%	9.57%	3.10%	2.37%	2.23%	1.04%	1.51%	1.64%
79	Guangdong Huaxing Bank Co., Ltd.	RMB	13.81%	11.73%	2.42%	1.94%	2.58%	2.19%	0.83%	1.09%
80	Bank of Wenzhou Co., Ltd.	RMB	5.49%	3.71%	1.89%	2.14%	1.95%	1.73%	1.78%	1.72%
81	Bank of Zhangjiakou Co., Ltd.	RMB	13.24%	15.01%	4.01%	2.51%	3.49%	1.86%	1.84%	1.98%
82	Weihai City Commercial Bank Co., Ltd.	RMB	10.96%	8.81%	3.15%	2.84%	2.70%	2.27%	1.82%	1.82%
83	Bank of Taizhou Co., Ltd.	RMB	22.85%	30.07%	3.74%	4.12%	4.66%	5.24%	0.65%	0.63%
84	Sichuan Tianfu Bank Co., Ltd.	RMB	9.01%	9.43%	3.17%	3.23%	2.46%	2.52%	1.99%	2.16%
85	Bank of Langfang Co., Ltd.	RMB	7.90%	11.10%	1.99%	2.02%	2.20%	2.16%	1.98%	2.16%
86	Chongqing Three Gorges Bank Co., Ltd.	RMB	11.01%	9.88%	2.08%	3.06%	1.94%	2.38%	1.31%	1.30%
87	Shanxi Qinnong Rural Commercial Bank Co., Ltd.	RMB	9.43%	7.16%	1.17%	1.04%	2.50%	2.90%	3.03%	3.20%
88	Zhejiang Tailong Commercial Bank Co., Ltd.	RMB	21.81%	23.32%	4.12%	4.18%	4.88%	4.82%	1.10%	1.16%
89	Guangdong Nanyue Bank Co., Ltd.	RMB	10.25%	9.85%	3.35%	3.16%	3.16%	3.11%	1.50%	1.95%
90	China Resources Bank of Zhuhai Co., Ltd.	RMB	12.22%	11.61%	2.80%	2.62%	2.90%	2.74%	1.86%	1.86%

The data quoted in this report came from the 2018 and 2019 annual reports publicly released by various banks.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

Allowance to total loans ratio		Provision coverage ratio		Capital adequacy ratio		Tier 1 capital adequacy ratio		Core tier 1 capital adequacy ratio	
% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)	
2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
3.56%	3.08%	279.83%	225.87%	13.00%	13.21%	9.82%	9.94%	8.51%	8.47%
3.79%	3.82%	159.85%	154.84%	12.11%	13.15%	10.05%	10.48%	7.98%	8.22%
3.24%	2.96%	184.42%	174.29%	13.37%	12.15%	12.20%	9.60%	12.20%	9.56%
3.88%	4.19%	389.57%	329.67%	15.30%	14.84%	12.63%	12.09%	12.63%	12.08%
3.74%	3.27%	165.65%	171.42%	12.63%	13.60%	9.97%	10.79%	9.96%	10.78%
2.86%	3.24%	280.97%	250.71%	14.26%	13.68%	11.97%	12.50%	11.88%	12.48%
4.56%	3.23%	116.05%	141.04%	11.11%	11.35%	8.91%	9.05%	8.91%	9.05%
3.85%	3.31%	324.95%	243.72%	14.45%	12.83%	12.30%	10.62%	12.30%	10.62%
3.19%	3.27%	193.25%	176.46%	14.13%	12.95%	9.60%	9.36%	9.60%	9.36%
3.35%	3.41%	194.23%	158.23%	13.31%	13.60%	9.88%	10.19%	9.88%	10.19%
4.41%	4.23%	102.44%	150.19%	11.27%	10.70%	10.49%	8.87%	10.49%	8.86%
2.56%	2.82%	155.09%	168.04%	14.76%	15.68%	11.33%	11.82%	8.36%	8.39%
2.52%	2.63%	208.03%	182.06%	14.10%	13.03%	9.30%	9.85%	9.30%	9.84%
2.83%	3.13%	169.66%	111.85%	13.98%	14.34%	11.34%	11.56%	11.29%	11.52%
2.57%	2.44%	163.44%	154.20%	12.61%	12.75%	9.58%	9.65%	9.58%	9.64%
3.12%	3.38%	182.34%	169.69%	11.64%	11.55%	8.97%	8.90%	8.97%	8.90%
2.94%	3.42%	224.07%	174.33%	14.36%	12.96%	11.34%	10.10%	11.30%	10.07%
4.54%	4.54%	310.23%	290.05%	12.26%	12.55%	10.49%	10.61%	10.48%	10.60%
3.91%	3.15%	160.11%	140.15%	11.76%	12.29%	9.50%	10.27%	9.50%	10.27%
3.78%	3.21%	293.66%	278.24%	14.11%	14.57%	12.94%	13.41%	12.94%	13.41%
3.33%	3.89%	135.87%	169.47%	11.83%	13.55%	9.92%	11.01%	9.92%	11.01%
3.58%	3.27%	357.93%	257.21%	14.80%	15.96%	13.67%	14.83%	13.67%	14.83%
4.96%	3.91%	159.64%	200.33%	15.14%	15.20%	12.67%	11.07%	12.66%	11.06%
2.69%	2.71%	154.93%	154.33%	11.84%	11.00%	8.67%	9.39%	8.65%	9.36%
3.04%	3.15%	204.09%	192.68%	14.72%	14.50%	11.15%	11.77%	10.16%	10.63%
5.52%	4.30%	444.31%	848.01%	12.90%	12.82%	N.A.	N.A.	N.A.	N.A.
3.40%	2.89%	193.49%	162.33%	11.95%	10.80%	9.13%	9.92%	9.13%	9.92%
3.09%	2.60%	262.41%	216.53%	14.85%	14.17%	12.62%	11.87%	12.62%	11.87%
5.08%	4.32%	207.65%	182.43%	14.70%	14.77%	11.02%	10.94%	10.95%	10.85%
4.42%	4.46%	142.66%	104.88%	14.96%	12.96%	11.06%	9.68%	11.05%	9.67%
3.59%	3.19%	179.86%	144.16%	14.01%	14.04%	11.80%	10.89%	11.80%	10.89%
3.41%	4.15%	166.51%	193.61%	12.19%	11.73%	N.A.	N.A.	N.A.	N.A.
3.71%	3.97%	199.92%	212.68%	13.60%	12.99%	11.47%	10.63%	11.47%	10.63%
3.24%	2.83%	274.58%	212.83%	15.21%	15.03%	11.16%	10.87%	11.15%	10.85%
4.65%	4.45%	443.95%	333.69%	14.20%	14.68%	11.31%	11.49%	11.23%	11.40%
2.50%	2.13%	170.56%	138.88%	12.79%	11.46%	10.77%	11.02%	10.77%	11.01%
2.39%	1.63%	204.00%	166.00%	15.80%	15.70%	15.10%	15.40%	15.10%	15.40%
3.02%	3.31%	200.63%	201.79%	13.29%	12.83%	9.82%	9.55%	9.82%	9.55%
2.54%	2.37%	305.47%	218.13%	13.97%	12.70%	9.67%	10.32%	9.67%	10.32%
2.61%	2.73%	153.62%	151.14%	11.17%	11.85%	8.53%	8.70%	8.53%	8.70%
2.83%	3.60%	154.16%	181.59%	11.55%	12.52%	8.53%	8.86%	8.52%	8.85%
2.65%	2.66%	147.33%	145.54%	16.06%	15.12%	12.00%	10.60%	9.98%	10.57%
2.51%	2.52%	386.00%	397.00%	15.75%	16.39%	12.61%	12.80%	11.52%	12.72%
3.45%	3.23%	162.70%	159.38%	12.00%	11.67%	9.45%	9.17%	9.38%	9.15%
3.21%	4.02%	162.30%	185.77%	13.90%	11.45%	11.90%	9.23%	11.90%	9.23%
2.22%	2.12%	169.25%	163.48%	13.47%	12.93%	9.84%	9.25%	9.84%	9.25%
4.50%	4.98%	148.29%	155.50%	14.06%	13.69%	12.98%	12.56%	12.98%	12.56%
2.54%	2.63%	230.36%	226.24%	15.54%	15.20%	10.36%	10.20%	10.35%	10.19%
4.53%	3.71%	247.42%	217.93%	12.03%	11.57%	10.01%	9.50%	10.01%	9.50%
3.72%	3.71%	201.90%	198.83%	13.67%	12.77%	11.08%	10.01%	11.08%	10.00%

03 Commercial banks' financial summary (1)

No.	Name of bank	Currency	Total assets (Unit: Million) 2019	Total assets 2018	Net assets attributable to the parent company (Unit: Million) 2019	Net assets attributable to the parent company 2018	Total loans (Unit: Million) 2019	Total loans 2018	Total deposits (Unit: Million) 2019	Total deposits 2018
91	Jiangsu Zijin Rural Commercial Bank Co., Ltd.	RMB	201,319	193,165	13,749	12,294	102,148	87,142	133,512	114,710
92	Guangdong Nanhai Rural Commercial Bank Co., Ltd.	RMB	200,712	186,233	19,614	17,456	96,765	87,099	148,234	131,291
93	Bank of East Asia (China) Limited	RMB	195,683	216,367	22,135	21,811	108,687	124,816	121,583	139,597
94	Bank of Tangshan Co., Ltd.	RMB	190,741	200,904	16,599	15,439	72,497	60,487	127,224	122,605
95	Jiangsu Changshu Rural Commercial Bank Co., Ltd.	RMB	184,839	166,704	16,925	12,836	110,274	92,795	138,079	113,101
96	Citibank (China) Co., Ltd.	RMB	177,853	174,203	21,468	19,428	66,579	63,201	139,499	134,595
97	Zhejiang Xiaoshan Rural Commercial Bank Co., Ltd.	RMB	176,418	157,902	14,522	13,146	100,560	86,369	136,483	120,584
98	Jilin Jiutai Rural Commercial Bank Company Limited	RMB	173,276	164,253	13,340	12,956	96,104	77,528	122,840	109,521
99	Bank of Handan Co., Ltd.	RMB	172,972	161,492	9,472	8,262	68,876	61,774	130,957	111,395
100	Bank of Yingkou Co., Ltd.	RMB	170,085	160,419	12,044	11,316	66,983	59,140	132,943	107,959
101	Bank of Ganzhou Co., Ltd.	RMB	169,414	136,469	11,917	9,192	92,997	66,011	134,772	100,627
102	Bank of Rizhao Co., Ltd.	RMB	167,386	148,475	13,273	12,392	83,762	70,609	121,244	102,289
103	Bank of Fuxin Co., Ltd.	RMB	166,743	177,155	10,513	10,430	82,839	68,897	124,955	110,923
104	Tianjin Binhai Rural Commercial Bank Corporation	RMB	164,080	162,182	15,326	12,292	85,234	87,250	111,244	94,245
105	MUFG Bank (China), Ltd.	RMB	163,701	156,652	20,935	19,618	50,245	55,956	125,081	108,577
106	Fujian Haixia Bank Co., Ltd.	RMB	162,454	153,077	13,206	11,378	72,392	65,658	88,627	76,853
107	Wuxi Rural Commercial Bank Co., Ltd.	RMB	161,912	154,395	11,649	10,850	85,067	75,343	131,358	115,808
108	Bank of Cangzhou Co., Ltd.	RMB	160,240	147,776	11,627	10,689	89,329	75,235	140,420	126,951
109	Bank of Urumqi Co., Ltd.	RMB	158,520	152,684	14,769	13,815	74,899	67,869	92,911	87,901
110	Zhejiang Mintai Commercial Bank Co., Ltd.	RMB	157,242	139,280	10,673	9,921	95,982	80,582	106,805	89,090
111	Bank of Ningxia Co., Ltd.	RMB	151,308	144,762	12,050	11,576	76,344	70,587	90,656	83,615
112	Bank of Inner Mongolia Co., Ltd.	RMB	144,841	139,514	13,305	11,141	72,342	65,414	95,387	87,395
113	Bank of Weifang Co., Ltd.	RMB	144,348	128,014	9,875	9,053	66,547	56,425	102,940	87,181
114	Ningbo Yinzhou Rural Cooperative Bank	RMB	144,342	131,672	13,818	12,357	82,715	70,036	97,309	85,491
115	Foshan Rural Commercial Bank Co., Ltd.	RMB	141,935	89,025	13,822	6,724	77,689	46,805	116,394	65,282
116	Nanyang Commercial Bank (China) Limited	RMB	140,138	151,280	14,324	13,535	73,359	74,932	95,625	91,259
117	Zhejiang E-Commerce Bank Co., Ltd.	RMB	139,553	95,864	10,518	5,365	70,030	50,183	78,858	42,979
118	Bank of Chengde Co., Ltd.	RMB	138,926	126,073	7,695	6,712	65,677	52,488	106,821	90,982
119	Bank of Laishang Co., Ltd.	RMB	134,028	121,320	9,553	8,998	70,354	62,982	95,734	76,962
120	Bank of Liuzhou Co., Ltd.	RMB	133,236	136,667	15,374	14,823	60,198	55,369	88,824	81,991
121	Changsha Rural Commercial Bank Co., Ltd.	RMB	132,931	119,283	14,698	13,892	68,083	63,334	92,931	89,612
122	Sumitomo Mitsui Banking Corporation (China) Limited	RMB	132,055	124,268	19,366	17,788	44,627	44,750	92,859	85,815
123	Bank of Qishang Co., Ltd.	RMB	131,851	111,444	12,849	12,218	81,317	63,128	110,704	88,117
124	Zhejiang Hangzhou Yuhang Rural Commercial Bank Co., Ltd.	RMB	129,615	102,546	7,626	7,015	63,052	51,067	98,641	84,798
125	Bank of Shaoxing Co., Ltd.	RMB	128,329	108,367	7,209	6,718	67,215	57,220	89,666	69,224
126	Mizuho Bank (China), Ltd.	RMB	127,818	120,590	16,789	15,324	50,364	51,642	91,197	83,442
127	Bank of Liaoyang Co., Ltd.	RMB	127,631	135,929	10,225	9,057	81,673	61,241	88,099	105,148
128	Xiamen Rural Commercial Bank Co., Ltd.	RMB	127,443	131,243	9,927	9,504	56,876	50,397	96,607	86,138
129	The Chinese Merchandise Bank, Ltd.	RMB	126,743	126,490	13,087	11,903	57,024	61,446	31,248	38,270
130	Jiangsu Jiangyin Rural Commercial Bank Co., Ltd.	RMB	126,343	114,853	11,757	10,518	70,311	62,986	95,288	84,758
131	Jiangsu Suzhou Rural Commercial Bank Co., Ltd.	RMB	125,955	116,782	11,512	9,411	68,395	59,391	95,956	82,748
132	Zhongshan Rural Commercial Bank Co., Ltd.	RMB	125,229	112,507	8,302	7,474	65,328	57,607	95,935	87,045
133	Haikou Rural Commercial Bank Co., Ltd.	RMB	124,155	118,158	8,469	8,010	55,495	43,319	88,562	67,801
134	Bank of Shangrao Co., Ltd.	RMB	124,022	109,851	10,613	6,695	63,294	51,184	89,520	73,052
135	Jiangsu Zhangjiagang Rural Commercial Bank Co., Ltd.	RMB	123,045	113,446	10,668	9,918	71,549	60,160	92,892	79,504

The data quoted in this report came from the 2018 and 2019 annual reports publicly released by various banks.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

Operating Income		Net fee income		Net interest income		Net profit attributable to the parent company		Cost-to-income ratio	
Unit: Million		Unit: Million		Unit: Million		Unit: Million		% (rounded to 2 decimal places)	
2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
4,675	4,230	264	256	3,993	3,763	1,417	1,254	29.69%	33.42%
5,611	5,340	321	277	4,311	4,414	3,228	2,741	31.99%	30.67%
5,674	4,367	693	580	4,650	3,328	(1,706)	471	60.04%	61.93%
2,986	2,919	6	17	2,528	2,140	1,550	1,530	29.58%	27.66%
6,445	5,824	324	367	5,690	5,099	1,785	1,486	38.24%	36.53%
5,946	6,460	1,076	1,078	2,510	2,787	2,072	2,552	52.10%	47.67%
4,883	4,796	254	229	2,507	2,439	1,426	1,246	20.70%	19.67%
5,311	5,038	316	376	4,165	3,520	1,042	983	51.08%	54.72%
3,025	2,839	6	(7)	1,960	1,494	933	889	48%	44.41%
3,412	2,746	(88)	18	3,469	2,682	643	583	50.86%	69.61%
3,733	3,116	264	212	1,476	1,177	933	845	30%	32.05%
4,710	3,785	191	194	4,417	3,360	868	741	27.65%	29.11%
2,098	2,022	35	33	2,069	2,030	400	374	54.72%	55.03%
2,354	1,719	(387)	(7)	2,663	1,635	476	403	51.78%	67.83%
3,648	3,584	109	102	2,294	2,340	1,294	1,371	53.74%	54.44%
3,017	2,790	527	521	2,515	2,203	510	475	39.14%	42.52%
3,540	3,192	112	86	2,945	2,989	1,250	1,096	29.66%	29.18%
3,612	3,616	(1)	1	3,604	3,601	1,239	1,120	39.61%	38.61%
3,354	3,395	57	124	3,246	3,156	1,346	1,316	31.97%	28.59%
4,778	3,915	475	415	2,633	1,505	763	650	51.81%	59.34%
3,410	3,587	82	85	2,117	1,739	701	575	34.10%	34.34%
3,005	2,671	256	179	1,344	808	613	543	51.00%	52.09%
4,150	3,471	138	172	975	775	819	739	31.48%	34.64%
4,327	4,125	257	132	2,827	2,250	1,722	1,493	36.51%	33.90%
2,867	2,291	23	49	2,613	1,811	1,367	890	37.66%	32.91%
2,632	3,202	327	468	1,703	1,990	805	1,128	46.45%	39.26%
6,628	6,284	1,394	1,635	5,197	4,623	1,256	671	43%	61.29%
3,196	3,001	(242)	(36)	1,682	1,292	1,199	942	27.01%	28.05%
3,536	3,196	(194)	49	1,883	1,125	545	467	31.47%	31.43%
3,729	3,106	129	106	3,586	2,981	495	345	35.26%	36.97%
3,521	3,583	160	115	3,318	3,440	1,403	1,458	34.47%	34.26%
2,925	3,119	78	96	1,501	1,629	1,559	1,229	43.42%	40.41%
2,743	2,567	129	74	2,555	2,433	594	531	44.21%	45.31%
3,119	3,147	24	91	1,946	1,848	936	814	29.53%	27.66%
2,381	1,952	84	81	1,370	628	472	405	40.00%	41.20%
2,884	3,126	88	89	1,489	1,452	1,453	1,408	40.51%	35.91%
3,710	3,135	68	72	1,915	1,270	1,148	1,082	18.73%	18.88%
3,666	3,494	(109)	(47)	3,134	3,331	1,179	1,115	27.86%	28.16%
1,971	2,273	106	149	1,945	2,037	1,140	1,183	18.33%	15.45%
3,404	3,186	99	65	2,472	2,342	1,013	857	31.66%	32.03%
3,521	3,150	128	72	2,931	2,684	913	802	34.61%	34.18%
3,249	3,058	101	119	2,937	2,822	1,262	1,030	38.66%	39.24%
3,337	3,363	316	229	2,486	2,471	753	700	34%	31.95%
3,545	3,230	(138)	(112)	1,786	1,401	800	725	29.81%	29.28%
3,853	2,992	7	33	3,183	2,720	954	835	31.15%	35.43%

No.	Name of bank	Currency	Return on average equity % (rounded to 2 decimal places) 2019	2018	Net interest spread % (rounded to 2 decimal places) 2019	2018	Net interest margin % (rounded to 2 decimal places) 2019	2018	Non-performing loan (NPL) ratio % (rounded to 2 decimal places) 2019	2018
91	Jiangsu Zijin Rural Commercial Bank Co., Ltd.	RMB	10.80%	11.93%	2.00%	2.31%	2.12%	2.28%	1.68%	1.69%
92	Guangdong Nanhai Rural Commercial Bank Co., Ltd.	RMB	17.67%	17.26%	2.14%	2.76%	2.29%	2.83%	1.06%	1.19%
93	Bank of East Asia (China) Limited	RMB	-7.76%	2.18%	2.07%	1.38%	2.39%	1.65%	1.75%	1.85%
94	Bank of Tangshan Co., Ltd.	RMB	9.68%	10.31%	2.77%	4.71%	1.35%	1.99%	1.30%	1.08%
95	Jiangsu Changshu Rural Commercial Bank Co., Ltd.	RMB	11.52%	12.62%	3.33%	2.89%	3.44%	3.00%	0.96%	0.99%
96	Citibank (China) Co., Ltd.	RMB	10.13%	14.15%	1.35%	1.60%	1.49%	1.75%	0.47%	0.50%
97	Zhejiang Xiaoshan Rural Commercial Bank Co., Ltd.	RMB	10.31%	9.99%	1.48%	1.72%	1.63%	1.80%	1.01%	1.22%
98	Jilin Jiutai Rural Commercial Bank Company Limited	RMB	7.93%	7.71%	2.74%	2.32%	2.75%	2.49%	1.68%	1.75%
99	Bank of Handan Co., Ltd.	RMB	10.49%	13.40%	1.16%	1.00%	1.23%	1.01%	2.18%	2.17%
100	Bank of Yingkou Co., Ltd.	RMB	5.51%	5.25%	4.10%	4.66%	2.99%	2.75%	1.70%	1.61%
101	Bank of Ganzhou Co., Ltd.	RMB	9.64%	9.73%	0.84%	0.80%	1.00%	0.94%	1.26%	1.88%
102	Bank of Rizhao Co., Ltd.	RMB	6.77%	6.19%	2.69%	2.33%	2.88%	2.53%	1.70%	2.08%
103	Bank of Fuxin Co., Ltd.	RMB	3.82%	3.69%	1.05%	1.02%	1.31%	1.20%	1.98%	1.89%
104	Tianjin Binhai Rural Commercial Bank Corporation	RMB	3.45%	3.34%	2.66%	2.26%	2.09%	1.38%	2.24%	2.26%
105	MUFG Bank (China), Ltd.	RMB	6.38%	6.99%	1.34%	N.A.	1.50%	N.A.	N.A.	N.A.
106	Fujian Haixia Bank Co., Ltd.	RMB	4.15%	4.28%	2.24%	2.32%	1.95%	1.41%	1.55%	1.58%
107	Wuxi Rural Commercial Bank Co., Ltd.	RMB	11.22%	10.68%	1.79%	1.93%	2.02%	2.16%	1.21%	1.24%
108	Bank of Cangzhou Co., Ltd.	RMB	11.10%	11.09%	2.22%	2.61%	2.41%	2.65%	2.27%	2.37%
109	Bank of Urumqi Co., Ltd.	RMB	9.42%	10.01%	2.46%	2.59%	2.43%	2.47%	1.84%	1.93%
110	Zhejiang Mintai Commercial Bank Co., Ltd.	RMB	7.60%	7.25%	2.67%	2.06%	2.22%	1.43%	1.68%	2.41%
111	Bank of Ningxia Co., Ltd.	RMB	5.93%	5.03%	1.95%	2.08%	2.12%	2.28%	3.82%	3.79%
112	Bank of Inner Mongolia Co., Ltd.	RMB	5.05%	4.96%	1.40%	1.30%	1.15%	0.79%	2.60%	2.71%
113	Bank of Weifang Co., Ltd.	RMB	8.65%	8.58%	1.27%	1.24%	2.97%	2.72%	1.78%	1.97%
114	Ningbo Yinzhou Rural Cooperative Bank	RMB	13.02%	13.78%	1.80%	1.61%	2.71%	2.64%	0.76%	0.90%
115	Foshan Rural Commercial Bank Co., Ltd.	RMB	13.30%	14.23%	2.40%	2.54%	2.49%	2.46%	0.89%	1.06%
116	Nanyang Commercial Bank (China) Limited	RMB	5.78%	8.66%	0.93%	1.18%	1.18%	1.37%	0.84%	0.85%
117	Zhejiang E-Commerce Bank Co., Ltd.	RMB	15.81%	13.36%	4.27%	5.37%	4.51%	5.61%	1.31%	1.32%
118	Bank of Chengde Co., Ltd.	RMB	16.64%	14.92%	1.15%	0.96%	1.30%	1.11%	1.84%	1.89%
119	Bank of Laishang Co., Ltd.	RMB	5.87%	5.28%	2.19%	2.06%	1.85%	1.40%	2.41%	2.84%
120	Bank of Liuzhou Co., Ltd.	RMB	4.14%	3.75%	4.98%	4.93%	4.09%	3.75%	2.87%	2.48%
121	Changsha Rural Commercial Bank Co., Ltd.	RMB	12.12%	10.96%	2.49%	2.84%	2.72%	3.06%	1.42%	1.27%
122	Sumitomo Mitsui Banking Corporation (China) Limited	RMB	8.39%	7.17%	0.98%	1.17%	1.20%	1.42%	N.A.	N.A.
123	Bank of Qishang Co., Ltd.	RMB	4.65%	4.55%	2.44%	2.74%	2.42%	2.66%	1.80%	2.35%
124	Zhejiang Hangzhou Yuhang Rural Commercial Bank Co., Ltd.	RMB	12.78%	12.19%	1.51%	2.24%	1.79%	2.25%	0.79%	0.98%
125	Bank of Shaoxing Co., Ltd.	RMB	6.72%	5.95%	2.12%	1.81%	1.54%	0.86%	1.67%	2.20%
126	Mizuho Bank (China), Ltd.	RMB	9.05%	9.66%	1.07%	1.10%	1.25%	1.30%	0.04%	0.04%
127	Bank of Liaoyang Co., Ltd.	RMB	11.91%	12.24%	1.25%	0.77%	1.48%	0.97%	2.16%	2.03%
128	Xiamen Rural Commercial Bank Co., Ltd.	RMB	12.34%	12.49%	2.28%	2.41%	2.47%	2.64%	1.01%	1.17%
129	The Chinese Merchandise Bank, Ltd.	RMB	9.13%	10.59%	N.A.	N.A.	N.A.	N.A.	1.24%	0.97%
130	Jiangsu Jiangyin Rural Commercial Bank Co., Ltd.	RMB	9.10%	8.92%	2.20%	2.42%	2.46%	2.67%	1.83%	2.15%
131	Jiangsu Suzhou Rural Commercial Bank Co., Ltd.	RMB	8.44%	9.08%	2.54%	2.51%	2.71%	2.64%	1.33%	1.31%
132	Zhongshan Rural Commercial Bank Co., Ltd.	RMB	16.00%	14.51%	2.54%	2.98%	2.61%	2.97%	0.96%	1.11%
133	Haikou Rural Commercial Bank Co., Ltd.	RMB	9.14%	9.52%	2.04%	2.22%	2.18%	2.36%	3.84%	5.37%
134	Bank of Shangrao Co., Ltd.	RMB	9.74%	12.19%	2.07%	2.44%	1.86%	1.84%	2.85%	2.41%
135	Jiangsu Zhangjiagang Rural Commercial Bank Co., Ltd.	RMB	9.22%	9.39%	2.51%	2.37%	2.74%	2.56%	1.38%	1.47%

The data quoted in this report came from the 2018 and 2019 annual reports publicly released by various banks.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

	Allowance to total loans ratio		Provision coverage ratio		Capital adequacy ratio		Tier 1 capital adequacy ratio		Core tier 1 capital adequacy ratio	
	% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)	
	2019	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
	3.99%	3.88%	236.95%	229.58%	14.78%	13.35%	11.07%	9.70%	11.07%	9.70%
	3.45%	3.51%	324.41%	294.17%	18.30%	17.59%	15.22%	14.40%	15.22%	14.40%
	2.64%	2.59%	150.91%	140.00%	15.84%	13.38%	14.24%	12.84%	14.24%	12.84%
	4.54%	3.42%	351.10%	317.30%	14.70%	14.46%	13.61%	13.36%	13.61%	13.36%
	4.63%	4.38%	481.28%	445.02%	15.10%	15.12%	12.49%	10.53%	12.44%	10.49%
	2.28%	2.58%	488.89%	556.30%	20.44%	19.76%	19.42%	18.76%	19.42%	18.76%
	5.89%	5.50%	590.92%	452.53%	15.13%	13.89%	13.10%	12.74%	13.10%	12.74%
	2.82%	2.80%	167.58%	160.41%	11.98%	11.83%	9.66%	11.44%	9.55%	9.40%
	3.50%	6.52%	160.49%	242.29%	12.12%	11.93%	9.39%	10.01%	9.39%	8.83%
	5.22%	4.27%	306.85%	264.77%	12.74%	12.09%	8.52%	13.76%	8.52%	8.50%
	2.35%	2.90%	186.80%	153.86%	13.91%	12.09%	11.50%	11.28%	11.50%	9.97%
	3.01%	3.32%	176.90%	159.62%	12.21%	12.97%	10.20%	10.88%	10.20%	10.87%
	3.87%	3.66%	184.78%	205.01%	11.05%	12.08%	8.53%	8.56%	8.53%	8.56%
	3.49%	3.64%	162.63%	153.10%	15.04%	13.28%	10.56%	8.61%	10.56%	8.61%
	2.71%	2.58%	N.A.	N.A.	20.51%	20.51%	N.A.	19.39%	N.A.	19.39%
	2.88%	2.51%	N.A.	182.24%	14.13%	14.34%	11.72%	11.44%	11.72%	11.44%
	3.50%	2.91%	288.18%	234.76%	15.85%	16.81%	10.20%	10.44%	10.20%	10.44%
	3.74%	3.78%	167.01%	157.73%	13.94%	14.30%	11.58%	11.83%	11.58%	11.83%
	4.02%	3.96%	214.69%	208.71%	18.55%	17.58%	16.29%	15.31%	16.29%	15.31%
	2.86%	2.84%	168.95%	118.73%	11.45%	11.63%	9.20%	9.78%	9.17%	9.75%
	5.76%	5.51%	150.88%	145.15%	13.29%	13.26%	10.11%	10.01%	10.11%	10.01%
	3.59%	4.07%	137.95%	150.54%	11.77%	10.51%	11.11%	9.54%	11.10%	9.54%
	3.00%	2.63%	147.66%	152.41%	13.14%	13.64%	9.33%	9.38%	9.33%	9.38%
	3.93%	3.39%	380.54%	364.78%	17.32%	17.32%	14.66%	14.52%	14.66%	14.52%
	3.96%	3.13%	353.36%	374.35%	20.59%	17.07%	17.54%	13.03%	17.54%	13.03%
	1.58%	1.97%	188.45%	231.35%	17.37%	16.53%	16.71%	15.57%	16.71%	15.57%
	4.94%	4.97%	376.32%	377.56%	16.44%	12.09%	15.40%	11.06%	15.40%	11.06%
	3.22%	3.22%	174.52%	170.56%	13.01%	13.62%	10.49%	10.87%	10.48%	10.85%
	3.47%	3.77%	156.26%	122.23%	12.20%	12.91%	9.22%	9.95%	9.16%	9.88%
	4.59%	4.06%	164.95%	163.91%	15.74%	14.59%	14.55%	13.76%	14.53%	13.76%
	3.19%	3.24%	212.26%	247.86%	17.04%	18.03%	15.90%	16.89%	15.90%	16.89%
	1.67%	2.60%	N.A.	N.A.	20.94%	21.23%	20.18%	20.14%	20.18%	20.14%
	3.06%	3.83%	170.27%	163.17%	14.35%	13.86%	12.07%	12.40%	12.04%	12.31%
	5.14%	4.87%	616.10%	525.48%	13.89%	14.68%	10.59%	11.12%	10.59%	11.12%
	2.76%	2.66%	159.02%	125.48%	11.23%	11.12%	8.62%	8.74%	8.61%	8.74%
	2.01%	2.49%	4935.18%	6373.74%	16.96%	17.40%	16.04%	16.34%	16.04%	16.34%
	4.10%	4.89%	226.11%	201.95%	11.53%	11.91%	8.58%	8.71%	8.58%	8.71%
	3.03%	3.11%	301.74%	265.83%	12.90%	13.21%	10.78%	10.43%	10.77%	10.42%
	2.27%	2.20%	183.48%	227.90%	16.91%	15.45%	16.16%	14.52%	16.16%	14.52%
	4.61%	5.03%	259.13%	233.71%	15.29%	15.21%	14.17%	14.04%	14.16%	14.02%
	3.33%	3.26%	249.32%	248.18%	14.67%	14.89%	12.17%	10.99%	12.17%	10.99%
	4.58%	4.34%	477.25%	392.27%	15.43%	14.69%	12.11%	11.28%	12.11%	11.28%
	8.13%	8.49%	211.77%	153.70%	15.36%	16.09%	11.60%	12.72%	11.60%	12.72%
	5.38%	5.16%	188.66%	214.02%	14.89%	12.66%	12.59%	10.10%	12.59%	10.10%
	3.47%	3.29%	252.14%	223.85%	15.10%	15.65%	11.02%	11.94%	11.02%	11.94%

			Total assets		Net assets attributable to the parent company		Total loans		Total deposits	
			Unit: Million		Unit: Million		Unit: Million		Unit: Million	
No.	Name of bank	Currency	2019	2018	2019	2018	2019	2018	2019	2018
136	DBS Bank (China) Limited	RMB	122,936	127,101	11,848	11,113	47,838	45,174	62,294	60,994
137	Bank of Anshan Co., Ltd.	RMB	122,709	104,500	8,232	8,085	76,488	68,080	104,963	88,127
138	Yunnan Hongta Bank Co., Ltd.	RMB	113,716	105,092	11,238	10,588	36,063	27,930	84,654	74,459
139	Leshan City Commercial Bank Co., Ltd.	RMB	110,169	106,824	9,298	8,789	45,315	39,015	56,390	50,025
140	Zhejiang Shaoxing Ruifeng Rural Commercial Bank Co., Ltd.	RMB	109,919	104,978	10,232	9,609	63,846	53,145	80,520	77,000
141	Dongying Bank Co., Ltd.	RMB	109,223	103,795	8,248	6,644	53,193	43,056	81,653	69,068
142	Bank of Huludao Co., Ltd.	RMB	108,700	90,815	5,969	5,578	61,197	48,991	92,696	76,623
143	Dalian Rural Commercial Bank Co., Ltd.	RMB	107,919	103,843	8,213	8,131	58,131	55,586	87,629	77,894
144	Jiangmen Rural Commercial Bank Co., Ltd.	RMB	107,009	104,311	11,975	11,228	50,356	44,994	79,764	78,233
145	Bank of Quanzhou Co., Ltd.	RMB	106,988	101,785	7,186	7,009	52,947	45,034	76,942	63,750
146	Bank of Qinghai Co., Ltd.	RMB	106,644	106,870	9,170	8,845	55,365	52,168	70,302	60,717
147	Mianyang City Commercial Bank Co., Ltd.	RMB	106,328	85,720	6,011	5,418	50,785	39,694	64,064	52,761
148	Jiangsu Kunshan Rural Commercial Bank Co., Ltd.	RMB	104,209	101,682	9,415	7,977	55,381	47,293	81,616	71,054
149	Yantai Bank Co., Ltd.	RMB	103,840	86,172	6,105	5,924	46,303	38,010	66,148	59,723
150	Guiyang Rural Commercial Bank Co., Ltd.	RMB	103,377	80,884	4,487	4,051	58,137	46,749	75,345	62,739
151	Bank of Xingtai Co., Ltd.	RMB	103,117	92,758	6,770	6,575	59,007	49,189	87,954	76,374
152	Bank of Baoding Co., Ltd.	RMB	102,989	94,209	8,428	7,679	41,350	32,822	72,168	61,393
153	Bank of Qinhuangdao Co., Ltd.	RMB	102,903	80,190	5,411	5,167	38,348	26,218	91,175	68,571
154	Bank of Jining Co., Ltd.	RMB	102,717	82,330	7,143	4,983	56,273	44,471	78,193	60,801
155	Hefei Science Technology Rural Commercial Bank Co., Ltd.	RMB	102,462	96,048	7,343	6,613	43,793	40,231	65,501	59,304
156	Hang Seng Bank (China) Limited	RMB	101,733	88,108	10,817	9,970	63,649	52,432	44,029	43,040
157	Bank of Chaoyang Co., Ltd.	RMB	101,712	86,045	5,931	5,656	48,330	41,428	76,612	69,935
158	Yingkou Coastal Bank Co., Ltd.	RMB	98,909	75,509	7,704	6,903	45,056	28,058	68,517	39,583
159	Ningbo Commerce Bank Co., Ltd.	RMB	96,852	82,925	8,224	7,590	39,797	34,501	61,339	48,664
160	Fubon Bank (China) Co., Ltd.	RMB	94,766	70,793	6,099	5,763	40,447	30,649	71,082	46,198
161	Bank of China Travel Service Co., Ltd. Jiaozuo	RMB	93,122	78,405	7,823	7,531	46,091	37,482	56,788	47,037
162	Luzhou Bank Co., Ltd.	RMB	91,681	82,550	6,890	6,367	44,759	31,279	61,437	52,386
163	Jincheng Bank Co., Ltd.	RMB	90,801	87,530	6,600	6,213	44,146	38,571	61,511	51,068
164	Bank of Linshang Co., Ltd.	RMB	88,405	81,920	7,961	8,320	56,858	52,474	74,447	67,347
165	Bank of Dandong Co., Ltd.	RMB	84,590	84,892	5,886	5,558	46,964	43,920	66,862	60,180
166	Bank of Jiaxing Co., Ltd.	RMB	82,336	67,305	5,153	4,516	43,775	37,021	56,040	47,045
167	Zhejiang Wenzhou Lucheng Rural Commercial Bank Co., Ltd.	RMB	81,189	64,047	4,911	4,089	52,955	41,892	61,974	47,480
168	Bank of Zigong Co., Ltd.	RMB	79,184	73,506	5,353	5,163	27,919	24,666	62,536	35,320
169	Jinzhong Bank Co., Ltd.	RMB	78,123	75,936	5,253	4,892	40,650	34,455	51,694	44,822
170	Bank of Jinhua Co., Ltd.	RMB	77,682	72,073	4,470	4,322	40,919	35,548	57,280	50,634
171	Shanxi Yaodu Rural Commercial Bank Co., Ltd.	RMB	75,615	78,336	6,311	6,139	37,054	34,123	48,131	45,466
172	Hebei Tangshan Rural Commercial Bank Co., Ltd.	RMB	73,843	65,591	5,748	4,911	44,078	38,629	59,826	54,279
173	Bank of Fushun Co., Ltd.	RMB	73,817	66,207	5,379	5,027	32,959	28,052	58,420	50,331
174	United Overseas Bank (China) Limit-ed	RMB	71,856	74,207	6,985	6,835	35,925	33,637	39,506	37,255
175	Jiangsu Nantong Rural Commercial Bank Co., Ltd.	RMB	71,821	65,584	6,765	6,199	40,325	36,315	55,500	50,985
176	Bank of Huzhou Co., Ltd.	RMB	71,205	52,044	4,457	3,404	35,770	28,084	52,734	43,269
177	Changchun Rural Commercial Bank Co., Ltd.	RMB	70,793	77,363	5,360	5,235	36,415	32,878	52,339	48,662
178	Zhejiang Yiwu Rural Commercial Bank Co., Ltd.	RMB	70,738	65,186	7,221	6,730	41,562	37,804	55,327	48,750
179	Jiangsu Haian Rural Commercial Bank Co., Ltd.	RMB	70,297	67,048	6,535	5,876	37,937	33,342	52,405	48,325
180	Bank of Dazhou Co., Ltd.	RMB	69,208	66,046	6,095	5,652	20,297	16,658	43,551	33,784

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Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

Operating Income		Net fee income		Net interest income		Net profit attributable to the parent company		Cost-to-income ratio	
Unit: Million		Unit: Million		Unit: Million		Unit: Million		% (rounded to 2 decimal places)	
2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
2,725	2,822	289	212	1,449	1,413	703	799	63.70%	57.60%
1,076	2,311	13	9	83	1,624	147	21	71.14%	30.83%
2,061	1,991	110	71	1,353	1,132	727	564	33%	30.31%
2,368	2,073	(22)	28	2,336	2,002	525	528	36.25%	37.76%
2,860	2,641	N.A.	N.A.	2,422	2,252	1,038	964	32.66%	30.68%
2,171	2,166	96	125	2,035	1,986	418	673	37.47%	35.60%
2,510	2,236	45	29	1,379	1,143	298	618	44.18%	42.07%
1,816	2,106	9	29	1,286	1,217	61	105	62.23%	54.73%
2,700	640	57	11	2,441	611	1,312	90	39.75%	48.91%
2,452	2,065	(17)	111	2,257	1,815	349	362	35.80%	38.52%
2,398	2,276	(124)	22	2,385	2,175	460	214	27.61%	27.47%
2,617	2,068	129	58	979	516	666	634	31.34%	33.72%
3,730	2,925	97	59	2,841	2,505	1,186	977	32.72%	33.80%
2,278	1,871	27	58	2,159	1,756	206	205	39.00%	38.76%
2,828	2,491	(4)	(17)	1,975	1,915	311	296	37%	36.79%
2,616	2,133	18	50	1,388	1,063	217	366	37%	44.91%
2,611	2,365	279	345	828	241	1,203	1,001	23%	21.24%
1,731	1,482	31	66	427	308	628	539	35%	32.23%
3,251	2,502	(760)	(233)	2,910	1,653	603	544	26%	28.33%
1,816	1,722	45	88	1,722	1,566	832	781	32.31%	33.94%
2,260	1,855	300	272	1,742	1,406	878	353	53.12%	59.94%
1,255	1,483	39	30	1,206	1,439	400	318	43.19%	35.34%
2,398	1,966	75	262	2,012	1,420	801	801	19%	21.68%
2,394	2,066	62	41	2,244	2,001	833	712	35.97%	39.55%
1,378	1,009	2	42	1,225	1,012	331	180	59.26%	73.49%
2,173	1,988	67	95	2,020	1,826	265	221	34%	34.71%
2,808	1,934	5	2	2,718	1,772	634	658	35.95%	34.54%
3,258	2,810	575	572	2,107	1,740	589	513	34.57%	39.21%
2,489	2,281	27	25	1,703	1,585	443	322	41.40%	45.05%
1,400	1,648	31	29	485	354	328	351	48.80%	38.66%
2,374	2,104	88	68	2,098	1,922	669	629	31.93%	33.80%
3,124	2,429	105	32	2,283	1,840	1,022	705	40.78%	40.93%
1,337	1,393	46	98	1,000	1,138	189	144	N.A.	N.A.
1,910	1,648	72	66	1,791	1,625	472	428	40%	44.56%
1,282	1,292	56	60	166	113	203	180	51.89%	48.87%
3,070	2,125	(2)	134	2,624	1,743	679	702	40.89%	34.21%
1,268	1,359	(11)	23	783	730	365	338	46%	39.34%
1,476	1,865	18	42	1,200	1,046	574	540	34.73%	24.53%
1,361	1,229	172	130	834	979	124	150	78.60%	81.10%
1,665	1,646	(154)	(102)	1,638	943	367	355	34%	33.40%
1,746	1,648	(152)	(100)	1,764	1,708	757	489	35.02%	30.40%
1,893	2,093	92	74	727	457	459	469	49.24%	46.13%
2,013	2,000	49	65	1,309	1,264	635	582	34.28%	31.65%
1,830	1,652	18	4	1,738	1,647	658	571	26.91%	27.94%
1,409	1,510	N.A.	N.A.	N.A.	N.A.	448	495	N.A.	N.A.

No.	Name of bank	Currency	Return on average equity % (rounded to 2 decimal places) 2019	2018	Net interest spread % (rounded to 2 decimal places) 2019	2018	Net interest margin % (rounded to 2 decimal places) 2019	2018	Non-performing loan (NPL) ratio % (rounded to 2 decimal places) 2019	2018
136	DBS Bank (China) Limited	RMB	6.13%	7.38%	0.96%	0.92%	1.30%	1.27%	0.70%	1.00%
137	Bank of Anshan Co., Ltd.	RMB	1.80%	0.27%	0.20%	2.27%	0.09%	1.99%	2.73%	13.25%
138	Yunnan Hongta Bank Co., Ltd.	RMB	6.66%	5.56%	1.28%	1.50%	1.38%	1.32%	1.24%	1.37%
139	Leshan City Commercial Bank Co., Ltd.	RMB	5.80%	6.17%	5.31%	5.58%	3.68%	3.38%	2.51%	2.97%
140	Zhejiang Shaoxing Ruifeng Rural Commercial Bank Co., Ltd.	RMB	N.A.	10.85%	N.A.	N.A.	N.A.	N.A.	1.35%	1.46%
141	Dongying Bank Co., Ltd.	RMB	5.62%	10.54%	2.36%	2.42%	2.23%	2.36%	2.05%	1.94%
142	Bank of Huludao Co., Ltd.	RMB	4.32%	11.19%	1.07%	1.13%	1.44%	1.51%	3.73%	1.76%
143	Dalian Rural Commercial Bank Co., Ltd.	RMB	0.75%	1.30%	1.66%	1.80%	1.46%	1.45%	4.99%	8.73%
144	Jiangmen Rural Commercial Bank Co., Ltd.	RMB	11.31%	0.80%	2.24%	N.A.	2.38%	N.A.	1.03%	2.03%
145	Bank of Quanzhou Co., Ltd.	RMB	4.92%	5.77%	2.11%	1.74%	2.24%	1.86%	1.74%	1.81%
146	Bank of Qinghai Co., Ltd.	RMB	5.06%	2.66%	2.90%	2.75%	2.22%	1.98%	2.49%	4.31%
147	Mianyang City Commercial Bank Co., Ltd.	RMB	11.66%	12.37%	1.22%	0.79%	2.45%	2.19%	1.87%	1.77%
148	Jiangsu Kunshan Rural Commercial Bank Co., Ltd.	RMB	13.51%	13.43%	3.07%	2.43%	3.10%	2.63%	1.29%	1.30%
149	Yantai Bank Co., Ltd.	RMB	3.43%	3.56%	2.99%	2.76%	2.72%	N.A.	2.97%	3.65%
150	Guiyang Rural Commercial Bank Co., Ltd.	RMB	7.27%	7.02%	2.45%	0.94%	2.36%	2.87%	2.74%	9.88%
151	Bank of Xingtai Co., Ltd.	RMB	3.25%	7.47%	2.50%	2.26%	2.68%	2.41%	2.81%	2.09%
152	Bank of Baoding Co., Ltd.	RMB	14.27%	13.04%	1.13%	0.63%	2.38%	2.09%	2.12%	2.04%
153	Bank of Qinhuangdao Co., Ltd.	RMB	11.88%	11.16%	0.69%	0.31%	0.53%	-0.07%	1.93%	1.98%
154	Bank of Jining Co., Ltd.	RMB	9.95%	11.79%	3.78%	3.11%	3.65%	2.81%	1.56%	1.89%
155	Hefei Science Technology Rural Commercial Bank Co., Ltd.	RMB	11.92%	12.51%	1.60%	1.52%	1.76%	1.69%	1.91%	1.94%
156	Hang Seng Bank (China) Limited	RMB	8.45%	3.64%	1.62%	1.30%	1.88%	1.55%	N.A.	N.A.
157	Bank of Chaoyang Co., Ltd.	RMB	6.90%	6.20%	1.58%	2.34%	1.46%	2.06%	1.93%	1.93%
158	Yingkou Coastal Bank Co., Ltd.	RMB	10.97%	14.23%	4.21%	6.30%	3.16%	3.62%	1.77%	1.46%
159	Ningbo Commerce Bank Co., Ltd.	RMB	10.53%	9.89%	3.32%	4.17%	3.02%	3.52%	1.12%	1.19%
160	Fubon Bank (China) Co., Ltd.	RMB	5.58%	3.23%	1.35%	1.29%	1.52%	1.45%	1.09%	1.38%
161	Bank of China Travel Service Co., Ltd. Jiaozuo	RMB	3.45%	2.98%	1.40%	1.78%	2.51%	2.71%	2.22%	2.10%
162	Luzhou Bank Co., Ltd.	RMB	9.47%	14.66%	2.85%	2.43%	3.08%	2.53%	0.94%	0.80%
163	Jincheng Bank Co., Ltd.	RMB	9.20%	8.73%	2.36%	2.29%	2.54%	2.24%	2.24%	1.95%
164	Bank of Linshang Co., Ltd.	RMB	5.45%	4.26%	2.11%	2.11%	2.18%	2.17%	2.44%	3.21%
165	Bank of Dandong Co., Ltd.	RMB	5.58%	6.43%	0.37%	0.18%	0.59%	0.45%	2.56%	2.59%
166	Bank of Jiaxing Co., Ltd.	RMB	13.84%	14.91%	2.78%	2.98%	2.93%	3.09%	1.12%	1.13%
167	Zhejiang Wenzhou Lucheng Rural Commercial Bank Co., Ltd.	RMB	22.71%	18.54%	3.26%	3.44%	3.39%	3.51%	1.25%	0.94%
168	Bank of Zigong Co., Ltd.	RMB	N.A.	2.92%	N.A.	N.A.	N.A.	N.A.	1.89%	1.95%
169	Jinzhong Bank Co., Ltd.	RMB	9.30%	9.08%	3.20%	2.61%	2.86%	2.50%	N.A.	2.56%
170	Bank of Jinhua Co., Ltd.	RMB	4.62%	4.21%	0.90%	0.60%	1.72%	1.81%	2.00%	1.68%
171	Shanxi Yaodu Rural Commercial Bank Co., Ltd.	RMB	10.91%	11.45%	3.22%	2.86%	3.24%	2.66%	2.44%	2.14%
172	Hebei Tangshan Rural Commercial Bank Co., Ltd.	RMB	6.85%	6.63%	1.25%	1.50%	1.26%	1.32%	2.55%	3.05%
173	Bank of Fushun Co., Ltd.	RMB	11.02%	11.15%	1.63%	1.53%	1.80%	1.66%	1.29%	1.12%
174	United Overseas Bank (China) Limited	RMB	1.80%	2.21%	1.02%	1.34%	1.26%	1.58%	0.60%	0.70%
175	Jiangsu Nantong Rural Commercial Bank Co., Ltd.	RMB	5.66%	6.83%	2.29%	1.46%	2.50%	1.59%	2.12%	2.07%
176	Bank of Huzhou Co., Ltd.	RMB	19.26%	15.27%	3.03%	3.33%	3.06%	3.52%	0.59%	0.66%
177	Changchun Rural Commercial Bank Co., Ltd.	RMB	8.66%	9.31%	1.96%	2.00%	2.17%	0.92%	1.97%	1.92%
178	Zhejiang Yiwu Rural Commercial Bank Co., Ltd.	RMB	9.10%	9.05%	2.30%	2.61%	2.26%	2.46%	1.13%	1.70%
179	Jiangsu Haian Rural Commercial Bank Co., Ltd.	RMB	10.62%	10.60%	2.33%	2.26%	2.58%	2.55%	1.27%	1.28%
180	Bank of Dazhou Co., Ltd.	RMB	7.62%	8.80%	N.A.	N.A.	N.A.	N.A.	1.98%	3.49%

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Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

Allowance to total loans ratio		Provision coverage ratio		Capital adequacy ratio		Tier 1 capital adequacy ratio		Core tier 1 capital adequacy ratio	
% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)	
2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
2.40%	2.50%	360.10%	246.80%	15.40%	15.50%	12.40%	12.50%	12.40%	12.50%
5.90%	4.94%	181.29%	44.54%	11.43%	5.58%	8.18%	3.25%	8.18%	3.25%
3.39%	3.52%	274.49%	257.00%	18.44%	17.41%	17.36%	16.28%	17.36%	16.28%
4.04%	4.07%	161.50%	135.59%	16.87%	13.90%	11.24%	10.91%	11.23%	10.90%
3.30%	3.35%	243.84%	228.97%	18.94%	17.53%	15.63%	13.51%	15.62%	13.50%
2.91%	2.95%	N.A.	N.A.	12.87%	12.31%	9.73%	8.83%	9.73%	8.83%
3.93%	2.88%	105.37%	154.95%	10.77%	12.41%	8.51%	9.12%	8.50%	9.07%
3.69%	5.41%	N.A.	N.A.	11.75%	10.86%	N.A.	N.A.	N.A.	N.A.
2.98%	3.60%	289.10%	210.49%	18.53%	18.51%	17.42%	17.14%	17.42%	17.14%
2.61%	2.73%	150.58%	150.58%	12.62%	12.50%	9.39%	9.30%	9.39%	9.30%
4.93%	4.29%	172.75%	121.33%	13.77%	14.22%	12.62%	13.48%	12.62%	13.48%
3.09%	3.24%	172.54%	174.43%	11.53%	11.94%	9.05%	9.32%	9.05%	9.32%
5.21%	5.05%	403.77%	388.72%	14.66%	13.71%	12.37%	11.15%	12.37%	11.14%
5.30%	4.68%	178.69%	128.24%	12.74%	13.75%	9.30%	10.42%	9.30%	10.42%
3.25%	7.61%	N.A.	61.16%	7.81%	5.93%	5.83%	4.15%	5.83%	4.15%
4.92%	3.11%	153.49%	148.55%	12.52%	13.38%	11.37%	12.47%	11.37%	12.47%
3.30%	3.07%	155.35%	150.47%	16.37%	16.58%	14.49%	14.77%	14.49%	14.77%
3.61%	3.97%	186.40%	200.70%	12.19%	12.82%	9.63%	11.65%	9.63%	11.65%
2.92%	3.03%	187.37%	160.28%	14.09%	12.02%	11.04%	8.94%	11.04%	8.94%
3.75%	3.68%	196.61%	189.57%	12.82%	12.81%	9.91%	9.80%	9.91%	9.80%
2.21%	2.57%	536.00%	426.00%	14.10%	14.90%	12.90%	13.80%	12.90%	13.80%
4.04%	4.48%	210.00%	231.25%	13.18%	13.57%	9.15%	9.35%	9.15%	9.35%
3.29%	2.53%	186.08%	172.98%	10.70%	12.04%	8.78%	10.13%	8.78%	10.13%
2.52%	2.88%	260.82%	211.85%	13.39%	13.46%	10.24%	10.36%	10.24%	10.36%
2.08%	1.72%	157.95%	150.69%	13.92%	14.18%	10.14%	11.70%	10.14%	11.70%
3.61%	3.15%	163.07%	150.44%	14.53%	11.97%	10.86%	11.37%	10.86%	11.37%
3.28%	2.54%	349.78%	319.36%	12.09%	13.29%	9.31%	10.69%	9.31%	10.69%
2.89%	3.46%	154.39%	148.55%	14.21%	13.56%	11.60%	11.18%	11.60%	11.18%
3.68%	3.25%	151.08%	101.19%	14.28%	14.89%	11.27%	12.71%	11.27%	12.71%
3.89%	3.93%	153.05%	150.60%	13.10%	12.62%	9.91%	9.50%	9.91%	9.50%
3.80%	4.96%	442.91%	336.58%	12.81%	12.48%	N.A.	9.68%	10.13%	9.67%
3.51%	3.33%	267.13%	N.A.	14.19%	14.49%	11.32%	N.A.	11.13%	N.A.
3.77%	3.09%	199.21%	158.35%	11.26%	11.47%	10.29%	10.89%	10.29%	10.89%
4.32%	4.85%	N.A.	189.81%	12.74%	11.71%	8.62%	8.75%	8.57%	8.72%
2.44%	2.53%	121.89%	150.06%	13.37%	13.94%	9.66%	9.81%	9.66%	9.81%
3.99%	3.61%	163.75%	168.04%	12.62%	12.77%	11.08%	10.90%	11.08%	10.90%
4.27%	4.60%	167.41%	156.13%	14.35%	13.78%	10.46%	9.65%	10.46%	9.65%
2.99%	2.54%	232.13%	226.46%	14.04%	14.90%	9.48%	10.06%	9.48%	10.06%
2.20%	2.10%	348.50%	288.50%	16.50%	14.00%	13.50%	13.10%	13.50%	13.10%
3.64%	3.64%	183.57%	176.46%	16.38%	16.48%	15.23%	15.33%	15.23%	15.33%
3.68%	4.35%	629.42%	659.42%	13.30%	13.45%	9.93%	9.52%	9.93%	9.52%
2.96%	3.13%	150.03%	163.38%	11.83%	11.78%	N.A.	N.A.	10.24%	10.01%
5.83%	6.28%	516.03%	370.19%	16.27%	14.67%	15.13%	13.53%	15.13%	13.53%
3.90%	3.60%	307.40%	281.36%	14.96%	14.13%	13.78%	12.97%	13.78%	12.97%
3.64%	5.24%	184.47%	150.00%	14.26%	16.11%	13.49%	15.32%	13.49%	15.32%

No.	Name of bank	Currency	Total assets (Unit: Million) 2019	Total assets (Unit: Million) 2018	Net assets attributable to the parent company (Unit: Million) 2019	Net assets attributable to the parent company (Unit: Million) 2018	Total loans (Unit: Million) 2019	Total loans (Unit: Million) 2018	Total deposits (Unit: Million) 2019	Total deposits (Unit: Million) 2018
181	Inner Mongolia Hohhot Jingu Rural Commercial Bank Co., Ltd.	RMB	68,829	65,628	5,716	5,486	33,194	29,154	45,781	43,952
182	Nanchang Rural Commercial Bank Co., Ltd.	RMB	66,359	64,245	5,745	5,491	41,993	37,960	53,741	48,906
183	Bank of Taian Co., Ltd.	RMB	65,733	53,800	5,826	3,985	32,766	24,642	48,991	40,149
184	Anhui Maanshan Rural Commercial Bank Co., Ltd.	RMB	64,390	58,883	4,082	3,429	36,784	32,048	46,634	40,969
185	Jiangsu Suning Bank Co., Ltd.	RMB	63,901	32,414	4,158	4,044	30,506	10,855	43,687	19,579
186	Deutsche Bank (China) Co., Ltd.	RMB	60,588	52,679	8,991	9,381	17,218	15,417	31,375	27,196
187	Zhuhai Rural Commercial Bank Co., Ltd.	RMB	60,158	59,574	5,185	5,114	27,912	26,791	45,285	42,610
188	Zhejiang Wenzhou Ouhai Rural Commercial Bank Co., Ltd.	RMB	59,522	48,557	5,070	4,556	36,653	31,937	48,206	45,565
189	CITIC aiBank Corporation Limited	RMB	58,860	35,924	3,245	3,223	37,151	27,311	31,138	13,104
190	Qujing City Commercial Bank Co., Ltd.	RMB	54,959	36,664	8,219	7,978	30,131	19,965	31,350	23,232
191	OCBC Wing Hang Bank (China) Limited	RMB	54,565	60,761	7,853	7,658	25,081	24,514	26,264	26,758
192	Bank of Panjin Co., Ltd.	RMB	54,557	29,169	3,330	2,759	20,378	16,650	42,451	22,952
193	Dezhou Bank Co., Ltd.	RMB	54,489	49,134	4,902	4,674	29,273	24,421	45,078	40,129
194	KEB Hana Bank (China) Co., Ltd.	RMB	53,906	49,671	5,904	5,706	22,050	21,327	44,388	38,968
195	Bank of Hainan Co., Ltd.	RMB	53,674	37,347	4,717	4,460	21,824	14,029	31,609	22,013
196	Zhejiang Fuyang Rural Commercial Bank Co., Ltd.	RMB	52,189	44,504	4,342	3,946	28,481	25,464	42,177	34,705
197	Jiangsu Qidong Rural Commercial Bank Co., Ltd.	RMB	52,147	49,107	3,351	2,942	28,618	25,342	43,544	39,955
198	Zhejiang Shangyu Rural Commercial Bank Co., Ltd.	RMB	51,824	45,569	5,237	4,818	30,758	26,244	43,331	38,746
199	Zhejiang Hecheng Rural Commercial Bank Co., Ltd.	RMB	51,767	42,785	4,264	3,835	24,795	20,079	43,579	37,544
200	Hunan Sanxiang Bank Co., Ltd.	RMB	51,581	31,538	3,441	3,163	22,194	13,213	43,240	26,794

The data quoted in this report came from the 2018 and 2019 annual reports publicly released by various banks.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

Operating Income		Net fee income		Net interest income		Net profit attributable to the parent company		Cost-to-income ratio	
Unit: Million		Unit: Million		Unit: Million		Unit: Million		% (rounded to 2 decimal places)	
2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
1,766	1,903	45	7	1,110	1,407	412	531	50%	46.30%
1,934	2,173	(22)	(6)	1,376	1,287	486	488	35%	31.74%
1,677	1,276	(140)	(148)	1,625	1,185	510	422	32.46%	38.77%
1,463	1,399	(9)	(9)	1,430	1,360	547	402	34.46%	32.75%
1,017	450	(65)	7	1,817	474	76	4	34.22%	58.65%
1,573	1,650	74	71	693	718	289	761	49.94%	50.51%
1,582	1,504	31	31	1,426	1,382	568	555	38%	38.44%
1,764	1,355	16	28	1,198	842	684	645	37.02%	29.55%
2,373	1,295	4	(2)	2,284	1,225	20	(484)	39.41%	59.15%
1,362	1,042	6	5	672	781	218	20	37.90%	38.46%
1,223	1,401	94	92	754	1,089	215	260	69.75%	55.55%
816	547	4	2	700	546	374	271	24%	35.59%
1,364	1,103	34	20	826	433	180	71	N.A.	N.A.
1,023	1,125	88	90	838	939	196	298	54.60%	49.34%
983	968	24	28	915	928	242	187	49%	45.93%
1,859	1,760	45	37	1,171	1,103	463	367	27.54%	27.04%
1,237	1,222	16	13	543	564	378	336	32.21%	32.73%
1,416	1,525	N.A.	N.A.	869	929	507	480	32.18%	27.81%
1,176	1,316	15	23	503	611	486	464	34%	27.75%
1,258	681	(8)	1	1,146	590	319	153	36%	37.26%

No.	Name of bank	Currency	Return on average equity % (rounded to 2 decimal places) 2019	2018	Net interest spread % (rounded to 2 decimal places) 2019	2018	Net interest margin % (rounded to 2 decimal places) 2019	2018	Non-performing loan (NPL) ratio % (rounded to 2 decimal places) 2019	2018
181	Inner Mongolia Hohhot Jingu Rural Commercial Bank Co., Ltd.	RMB	N.A.	N.A.	1.82%	2.04%	2.61%	2.67%	2.24%	2.29%
182	Nanchang Rural Commercial Bank Co., Ltd.	RMB	8.66%	9.12%	2.09%	2.07%	2.21%	2.13%	2.41%	2.45%
183	Bank of Taian Co., Ltd.	RMB	10.39%	11.23%	2.52%	2.14%	2.81%	2.28%	1.91%	4.69%
184	Anhui Ma'anshan Rural Commercial Bank Co., Ltd.	RMB	14.57%	12.27%	2.21%	2.18%	2.37%	2.43%	N.A.	N.A.
185	Jiangsu Suning Bank Co., Ltd.	RMB	1.85%	0.09%	3.48%	N.A.	3.73%	1.65%	0.88%	0.00%
186	Deutsche Bank (China) Co., Ltd.	RMB	3.15%	8.47%	1.13%	1.14%	1.31%	1.42%	0.15%	1.18%
187	Zhuhai Rural Commercial Bank Co., Ltd.	RMB	11.04%	11.22%	2.35%	2.35%	2.48%	2.47%	1.30%	1.62%
188	Zhejiang Wenzhou Ouhai Rural Commercial Bank Co., Ltd.	RMB	14.17%	14.15%	2.05%	2.79%	2.20%	2.73%	1.03%	0.88%
189	CITIC aiBank Corporation Limited	RMB	0.61%	-19.62%	4.94%	N.A.	4.91%	N.A.	N.A.	N.A.
190	Qujing City Commercial Bank Co., Ltd.	RMB	2.70%	0.60%	1.50%	2.22%	1.69%	2.58%	1.96%	2.47%
191	OCBC Wing Hang Bank (China) Limited	RMB	2.78%	3.48%	1.02%	1.36%	1.40%	1.66%	0.78%	2.40%
192	Bank of Panjin Co., Ltd.	RMB	12.33%	9.86%	1.86%	1.90%	2.17%	2.20%	2.43%	3.18%
193	Dezhou Bank Co., Ltd.	RMB	3.77%	1.53%	N.A.	N.A.	N.A.	N.A.	2.72%	3.15%
194	KEB Hana Bank (China) Co., Ltd.	RMB	3.38%	5.39%	1.52%	1.82%	1.75%	2.01%	0.99%	N.A.
195	Bank of Hainan Co., Ltd.	RMB	5.27%	4.30%	1.72%	2.03%	2.11%	2.29%	0.98%	0.36%
196	Zhejiang Fuyang Rural Commercial Bank Co., Ltd.	RMB	11.17%	9.80%	2.48%	3.00%	2.63%	3.20%	1.10%	1.61%
197	Jiangsu Qidong Rural Commercial Bank Co., Ltd.	RMB	12.02%	12.01%	0.95%	3.77%	1.10%	2.41%	1.77%	1.77%
198	Zhejiang Shangyu Rural Commercial Bank Co., Ltd.	RMB	10.09%	10.47%	1.80%	3.12%	1.93%	3.34%	0.97%	0.99%
199	Zhejiang Hecheng Rural Commercial Bank Co., Ltd.	RMB	12.00%	12.75%	1.01%	1.50%	1.13%	1.58%	0.92%	0.98%
200	Hunan Sanxiang Bank Co., Ltd.	RMB	9.65%	4.97%	2.43%	2.45%	2.59%	3.00%	0.59%	0.00%

The data quoted in this report came from the 2018 and 2019 annual reports publicly released by various banks.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortised cost; if this data was not available, then "total loans" was calculated based on the loan amounts reported in the balance sheet.
Note 2: "Total deposits" was calculated based on the deposit amounts reported in the balance sheet.

	Allowance to total loans ratio		Provision coverage ratio		Capital adequacy ratio		Tier 1 capital adequacy ratio		Core tier 1 capital adequacy ratio	
	% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)		% (rounded to 2 decimal places)	
	2019	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
	3.61%	3.52%	161.31%	153.58%	16.81%	16.51%	12.56%	12.35%	12.53%	12.32%
	4.03%	3.80%	167.04%	154.99%	15.61%	15.51%	12.71%	12.54%	12.71%	12.54%
	3.84%	4.95%	202.46%	105.47%	13.36%	11.01%	10.98%	9.36%	10.98%	9.36%
	3.00%	4.16%	N.A.	N.A.	19.94%	18.10%	17.15%	15.24%	17.15%	15.24%
	2.51%	1.79%	282.95%	N.A.	12.39%	26.33%	10.45%	24.93%	10.45%	24.93%
	2.50%	1.50%	173.10%	128.00%	20.45%	24.97%	19.57%	24.85%	19.57%	24.85%
	3.09%	4.69%	238.04%	289.16%	16.97%	16.91%	12.87%	12.80%	12.87%	12.80%
	3.51%	4.04%	339.55%	433.91%	17.76%	16.20%	14.82%	13.14%	14.82%	13.14%
	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
	4.43%	4.60%	225.81%	186.37%	22.64%	33.35%	21.48%	32.21%	21.48%	32.21%
	2.60%	3.60%	334.49%	150.00%	20.18%	20.39%	19.15%	19.62%	19.15%	19.62%
	N.A.	N.A.	162.60%	29.80%	11.09%	11.07%	N.A.	N.A.	N.A.	N.A.
	4.12%	4.82%	150.98%	152.97%	12.81%	13.37%	11.82%	12.29%	11.82%	12.29%
	2.50%	2.10%	252.57%	N.A.	14.80%	14.82%	14.80%	14.19%	14.80%	14.19%
	4.24%	5.14%	430.40%	1152.29%	14.37%	15.79%	13.19%	14.61%	13.19%	14.61%
	6.06%	7.39%	672.93%	376.60%	15.73%	14.22%	13.67%	13.11%	13.67%	13.11%
	2.50%	5.02%	284.32%	283.15%	15.10%	15.00%	12.11%	11.85%	12.11%	11.85%
	4.12%	5.03%	424.28%	508.82%	15.83%	13.75%	13.40%	12.60%	13.40%	12.60%
	5.13%	6.20%	559.21%	632.80%	14.58%	14.39%	12.97%	13.26%	12.97%	13.26%
	2.17%	1.65%	367.29%	∞	11.28%	14.83%	10.19%	13.86%	10.19%	13.86%

About KPMG

Our professional financial services

KPMG China is based in 27 offices across 25 cities with around 12,000 partners and staff in Beijing, Changsha, Chengdu, Chongqing, Foshan, Fuzhou, Guangzhou, Haikou, Hangzhou, Hefei, Jinan, Nanjing, Ningbo, Qingdao, Shanghai, Shenyang, Shenzhen, Suzhou, Tianjin, Wuhan, Xiamen, Xi'an, Zhengzhou, Hong Kong SAR and Macau SAR. Working collaboratively across all these offices, KPMG China can deploy experienced professionals efficiently, wherever our clients are located.

KPMG is a global network of professional services firms providing Audit, Tax and Advisory services. We operate in 147 countries and regions, and have 219,000 people working in member firms around the world. The independent member firms of the KPMG global organisation are affiliated with KPMG International Limited ("KPMG International"), a private English company limited by guarantee. KPMG International and its affiliates do not provide client services. Each KPMG firm is a legally distinct and separate entity and describes itself as such.

In 1992, KPMG became the first international accounting network to be granted a joint venture licence in mainland China. KPMG China was also the first among the Big Four in mainland China to convert from a joint venture to a special general partnership, which it did on 1 August 2012. Additionally, the Hong Kong office can trace its origins to 1945. This early commitment to the China market, together with an unwavering focus on quality, has served as the foundation for the firm's accumulated industry experience, and is reflected in KPMG's appointment to provide multi-disciplinary services (including audit, tax and advisory) to some of China's most prestigious companies.

Glossary

Organisation names

PBOC – People's Bank of China
CSRC – China Securities Regulatory Commission
CBIRC – China Banking and Insurance Regulatory Commission
ICBC – Industrial & Commercial Bank of China
CCB – China Construction Bank
ABC – Agricultural Bank of China
BOC – Bank of China
BOCOM – Bank of Communications
PSBC – Postal Savings Bank of China
CMB – China Merchants Bank
CIB – Industrial Bank
CEB – China Everbright Bank
Ant Financial – Ant Financial Services Group
CCB Wealth Management – CCB Wealth Management Co., Ltd.

General terms

CBDC – Central bank digital currency
LMR – Liquidity maintenance ratio
LCR – Liquidity coverage ratio
NSFR – Net stable funding ratio
COVID–19 – Coronavirus disease 2019
ESG – Environmental, social and governance
API – Application programming interface
AI – Artificial intelligence

Contact us

Our dedicated financial services team brings together partners from the firm's audit, tax and advisory practices and is linked closely to other member firms in the KPMG network.

For more information, please contact one of the financial services partners listed on the next page.

Simon Gleave
Regional Head of Financial Services
KPMG Asia Pacific
:+86 (10) 8508 7007
: simon.gleave@kpmg.com

Tony Cheung
Head of Advisory, KPMG China
Eastern & Western Region
:+86 (21) 2212 2705
: tony.cheung@kpmg.com

Paul McSheaffrey
Head of Banking & Capital
Markets, Hong Kong
:+852 2978 8236
: paul.mcsheaffrey@kpmg.com

Thomas Chan
Head of Financial Services Assurance
KPMG China
:+86 (10) 8508 7014
: thomas.chan@kpmg.com

Reynold Liu
Head of Management Consulting
KPMG China
:+86 (21) 2212 3626
: reynold.jg.liu@kpmg.com

Egidio Zarrella
Head of Clients and Innovation
KPMG China
:+852 2847 5197
: egidio.zarrella@kpmg.com

Sam Shi
Head of Banking
KPMG China
:+86 (10) 8508 7112
: sam.shi@kpmg.com

Amity Wei
Partner, Management Consulting –
Big Data，KPMG China
:+86 135 2003 0084
: amity.wei@kpmg.com

Rita Wong
Partner, Financial Services
KPMG China
:+852 2978 8172
: rita.wong@kpmg.com

Christine Song
Partner, Financial Services
KPMG China
:+86 (10) 8508 7015
: christine.song@kpmg.com

James Chen
Partner, Financial Services
KPMG China
:+86 (21) 2212 2424
: james.chen@kpmg.com

Jason He
Partner, AI Application
KPMG China
:+86 (755) 2547 1129
: jason.rk.he@kpmg.com

Ellen Jin
Partner, Financial Services
KPMG China
:+86 (10) 8508 7012
: ellen.jin@kpmg.com

Terence Fong
Partner, Financial Services
KPMG China
:+852 2978 8953
: terence.fong@kpmg.com

Larry Choi
Partner, Financial Services
KPMG China
:+86 (20) 3813 8883
: larry.choi@kpmg.com

Raymond Li
Partner, Financial Services
KPMG China
:+86 (10) 8508 7114
: raymond.li@kpmg.com

Kevin Tao
Partner, Financial Services
Consulting
KPMG China
:+86 136 9115 8091
: kevin.j.tao@kpmg.com

Jin Cao
Partner, Risk Management Consulting
KPMG China
:+86 (755) 2547 3428
: jin.cao@kpmg.com

Banny Leung
Partner, Audit COO of Financial
Services
KPMG China
:+86 (10) 8508 7108
: banny.leung@kpmg.com

Rong Zheng
Partner, Management
Consulting
KPMG China
:+86 (21) 2212 3270
: rong.zheng@kpmg.com

Daniel Zhi
Partner, Financial Strategy
Consulting
KPMG China
:+86 (21) 2212 3123
: daniel.zhi@kpmg.com

Louis Ng
Partner, Financial Services Deal Advisory
KPMG China
:+86 (10) 8508 7090
: louis.ng@kpmg.com

Lang Lang Xu
Head of Lighthouse
KPMG China
:+86 (10) 8508 5432
: langlang.xu@kpmg.com

Robert Song
Partner, Financial Services Consulting
KPMG China
:+86 136 0125 9343
: robert.song@kpmg.com

Lewis Lu
Head of China Tax
KPMG China
:+86 (21) 2212 3421
: lewis.lu@kpmg.com

Lori Zhang
Associate Director, Financial
Services Consulting
KPMG China
:+86 (10) 8508 7988
: lori.j.zhang@kpmg.com

Carol Hong
Director, Financial Strategy Consulting
KPMG China
:+86 (21) 2212 2770
: carol.hong@kpmg.com

Chris Ge
Partner, Tax
KPMG China
:+86 (21) 2212 3083
: chris.ge@kpmg.com

David Cao
Senior Manager, Tax
KPMG China
:+86 (10) 8508 5932
: david.cao@kpmg.com

kpmg.com/cn/socialmedia

For a list of KPMG China' s offices, please scan the QR code or visit our website:
https://home.kpmg.com/cn/zh/home/about/offices.html