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/en/home/about/offices.html

KPMG

Moving Intelligently towards a Smarter Future

Mainland China Banking Survey 2021

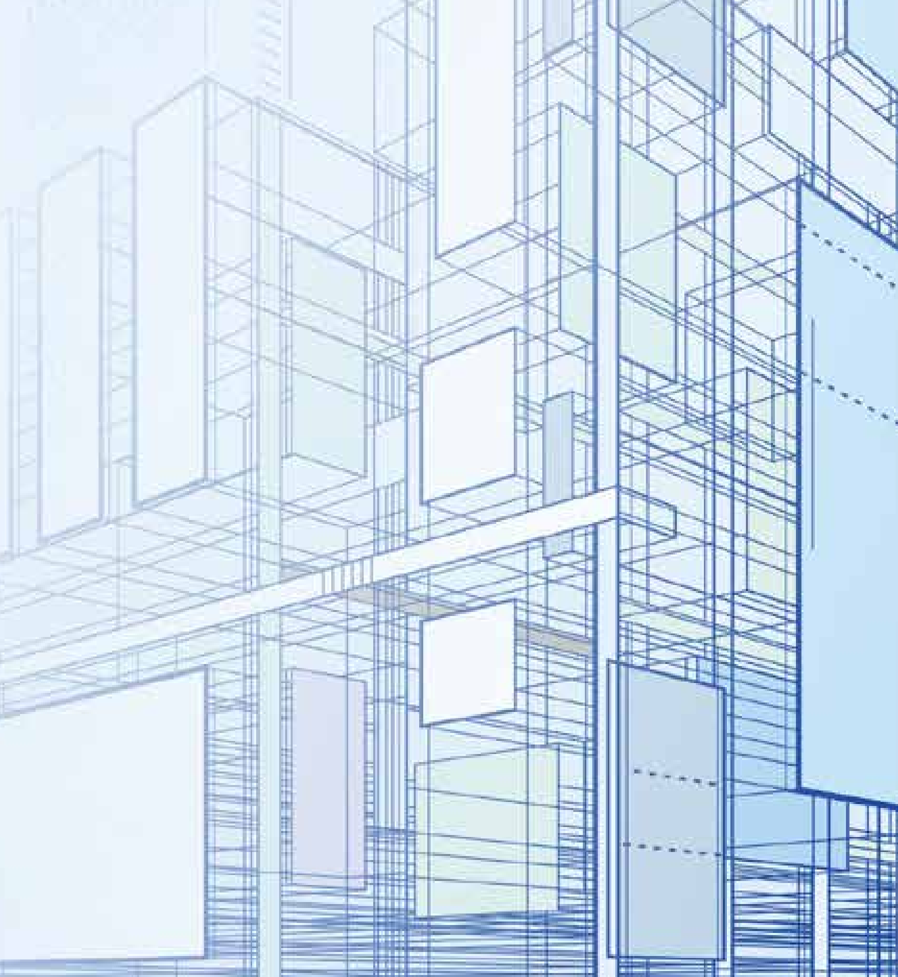


TABLE OF CONTENTS

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Foreword

Tony Cheung

Head of Financial Services,
KPMG China

Since 2020, the banking industry has been significantly impacted by the global pandemic and the changing macro-economic environment, and as a result its asset quality and profitability have been generally trending downward. On a positive note, faced with the pandemic, banking institutions have hit the "fast forward" button in their efforts to embrace the new wave of digital transformation, fintech empowerment and green finance, ushering in a new stage of digital transformation and quality development for banking institutions.

2021 is the first year in the 14th Five-Year Plan period, and it is also an important starting point in the country's efforts to achieve the second centenary goal. As China embraces the "dual circulation" development model, the banking industry is entering an era that is rife with strategic opportunities. At the same time, rising credit risk, deteriorating loan quality and complicated financial risks driven by the global pandemic, combined with changes in the operating environment, such as heightened regulatory scrutiny, financial disintermediation and intensifying competition, pose new challenges to the industry. Within this context, banks are being pushed out of their comfort zones as they reshape their differentiated service delivery strategies, accelerate their transformations, and consolidate their core competitive advantages in pursuit of quality development.

In this report, we will analyze topics of general interest in the industry from a strategic and practical perspective. In addition, we will look beyond the banks themselves as we discuss some of the new reforms and innovations that are taking place in China's banking industry. We hope that the insights we have gleaned from our experience stimulate an exchange of ideas between participants in the banking sector and related industries as we enter a future that presents both opportunities and challenges.

Sam Shi

Head of Banking,
KPMG China

Pursuing AI-driven development and digital banking capabilities: Against a backdrop of sweeping digitalization, banks are actively developing industrial ecosystems and transforming themselves into more intelligent and digital enterprises. Going forward, traditional banks must leverage digital technologies and enable smart banking operations, and banks of all stripes should adopt top-down digital strategies if they want to succeed in the era of "future banks." Within this context, industry participants are asking various questions. When undertaking digitalization, how should banks implement digital and innovative strategies to promote business transformation and product innovation? How can financial institutions coordinate regional development and seize the opportunities brought by opening up and economic development in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA)? How can foreign banks gain an edge and find success? How can banks' fintech subsidiaries leverage their shareholders' expertise to identify real-life application scenarios for their technologies?

Developing smart control and compliance capabilities: In the future, banking operations will still focus on risk management, and banks will still compete based on their ability to identify, measure, prevent and price risks. As technological innovations such as open banking, cloud computing and big data become more widely applied in the financial industry, banks are facing unprecedented risk management challenges brought by borderless service scenarios; an interconnected, interdependent and multi-party financial system; and high-value data assets. As a result, policymakers are releasing stricter and more comprehensive regulations. Against this backdrop, how can banking institutions use fintech to strengthen their risk control capabilities? How can banks achieve intelligent and comprehensive risk management? How can digital models be used to provide microfinance services? How should banks deal with tax issues under the new normal? These are some of the questions we will explore in this report.

Thomas Chan

Head of Financial Services Assurance,
KPMG China

China's banking industry has gone to great lengths in its pursuit of innovation, and as a result, the industry is able to offer diverse financial products that cover various market segments. Thanks to the continuous development of big data, artificial intelligence (AI) and blockchain technologies, banks are deploying comprehensive financial models that span multiple sectors. Consequently, regulators are focusing on protecting consumers of digital services, supervising large Internet technology platforms and monitoring digital governance issues. For "future banks" that are developing intelligent and digital capabilities, technological innovation represents both a driving force for growth and a source of new risks. For this reason, regulators are focusing on balancing innovation with risks during this era of digital transformation. In addition, the accelerated application of online and digital technologies and the long-term adoption of work-from-home arrangements during and even after COVID-19, together with business and risk strategies related to climate and other ESG risks, also represent areas of concern for banking institutions.

In this year's report, we will discuss financial risk responses, risk model management, and risks related to the climate and environment from various perspectives. We hope that our analysis will help bankers make breakthroughs while maintaining stable growth and keeping risks at bay. We believe that by seizing the opportunities offered by digitalization, all banks can transition from the traditional method of relying on economies of scale to a future-oriented model in which they generate more value and meet new challenges.

Raymond Li

Partner, Financial Services
KPMG China (Editor-in-Chief)

This report is the 15th annual survey that KPMG has published for China's banking industry. In it, we describe how China's banking industry has regained its footing and maintained a steady recovery in 2020 despite the lingering impact of the pandemic. The report also analyses the four major forces that will drive the development of commercial banks for the foreseeable future: the acceleration of digital transformation, the promotion of green finance, the development of inclusive finance, and the prevention of financial risk. In part II of the report, professionals with extensive experience in the banking, fintech, risk management and sustainability sectors analyze and provide insights into important topics such as transaction banking, retail banking, foreign banks, the regional development of banks in the GBA, fintech subsidiaries, risk management, and tax issues from both a "strategic" and "practical" perspective. We also share our insights into bank transformation under the new reality and propose our own solutions to the changes that are ongoing. In part III of the report, our professional team illustrates and analyses the performance and key indicators of 200 listed and non-listed commercial banks in 2020, covering their scale of business, profitability, asset quality and capital adequacy.

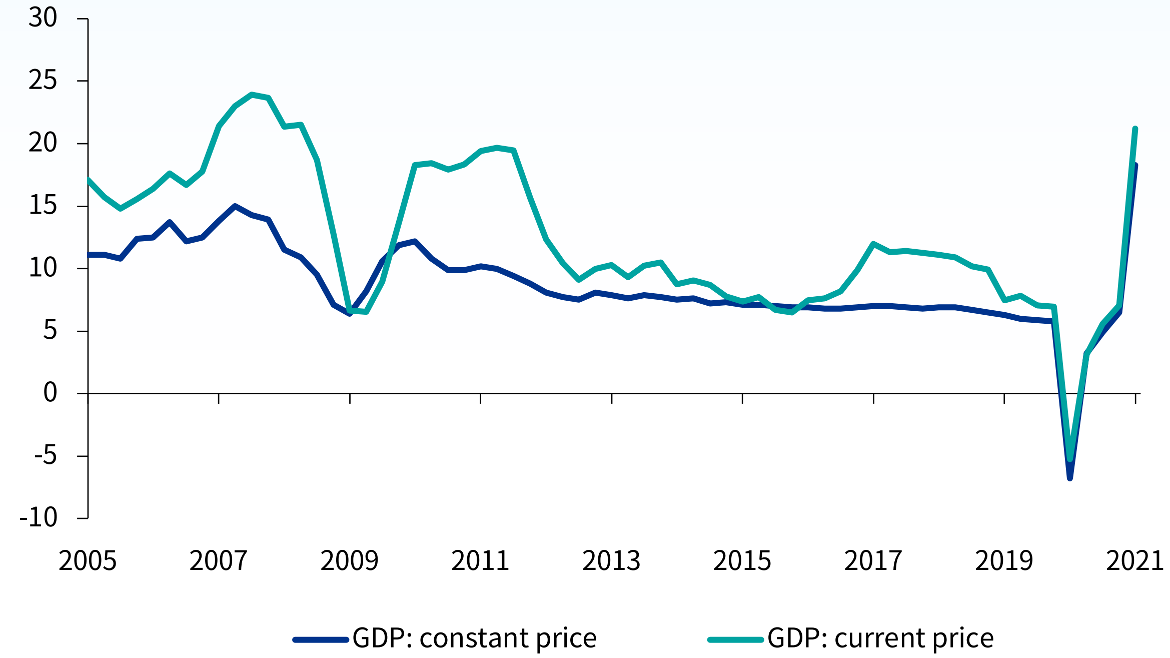
We hope that after reading this report, industry participants will be inspired to identify what factors are driving bank transformation during the digital era, so that financial institutions can confidently address upcoming changes and challenges and successfully develop their business.

01 Overview

- Economic and financial review and outlook
- Review and outlook of the banking industry
- Strictly complying with regulatory guidelines to prevent financial risks

1.1 Economic and financial review and outlook

Figure 1 Quarterly YOY growth in GDP (%)



Source: Wind, KPMG analysis

China's economy is recovering steadily

Following a difficult start in 2020, China's economy picked up and achieved a year-on-year (YOY) increase of 2.3% (Figure 1), making it the only major economy in the world to achieve positive growth during the year. China's GDP also topped RMB 100 trillion and reached RMB 101.6 trillion for the first time in 2020.

The Chinese economy continued to grow at a stable pace in 2021 Q1. Economic indicators bounced back sharply due to factors such as last year's low base and the quick resumption of production as workers were encouraged to "stay put for the Spring Festival." As a result, GDP hit a historical record for quarterly growth, notching a YOY increase of 18.3%. The impact of the pandemic is expected to dwindle as the vaccination campaign moves forward, and we expect the Chinese economy to continue its recovery and achieve annual growth of 8.8% in 2021.

Analysis from the three perspectives of consumption, investment and foreign trade:

- During the first half of 2020, offline consumer sectors such as catering and tourism were hit hard by the pandemic, and consumption did not make a significant contribution to the country's economic growth. In 2020 Q3, with the pandemic basically under control, the consumer market gradually picked up and made a greater contribution to economic growth. In 2020 Q4, final consumer spending contributed 2.6 percentage points to economic growth, up 1.2 percentage points from Q3 (Figure 2). Total retail sales of consumer goods decreased by 3.9% (Figure 3) YOY in 2020. During the year, there was a clear shift from offline consumption to online consumption, and online retail sales of physical goods rose by 14.8% YOY during 2020, accounting for 24.9% of total retail sales of consumer goods, up 4.2 percentage points from 2019.

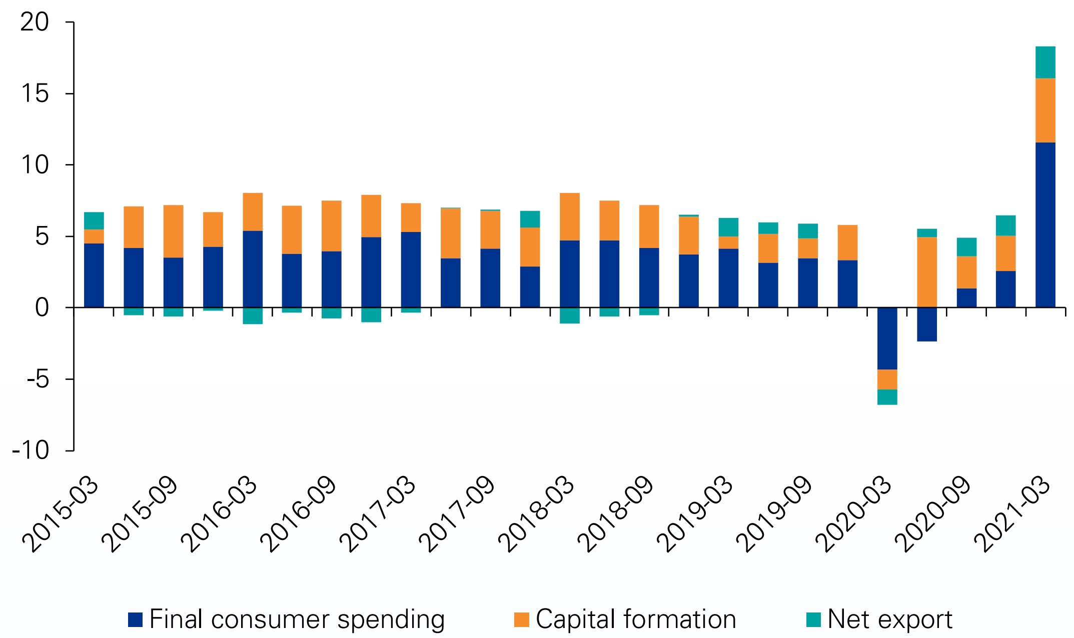
  In 2021, people have been returning to their normal habits in terms of shopping, dining and travelling; and as a result, commodity and catering consumption have both rebounded significantly during the year. In March, sales of retail goods increased by 29.9% YOY, or by 6.9% on average over the previous 2 years. Meanwhile, the catering sector recorded more revenue in March 2021 than in March 2019, bouncing back from the decline in 2020 and achieving a YOY increase of 91.6% and notched a 2-year average growth rate of 0.9%, slightly above zero. Consumer spending contributed 11.6 percentage points to economic growth in 2021 Q1 and 2.5 percentage points to economic growth on average over the previous 2 years. Consumption is expected to be one of the major drivers of the economic recovery in 2021.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

- Of course, investment is another important pillar of the country's economic growth. In 2020, investment topped consumption and exports by contributing 2.16 percentage points to economic growth. Investment became the major driver of GDP growth during the year, with fixed asset investment increasing by 2.9% YOY. Various policies designed to stabilize investment have taken effect in 2021. Against this backdrop, investment contributed 4.5 percentage points to economic growth during 2021 Q1; specifically, fixed asset investment increased by 25.6% YOY, representing a 2-year average increase of 2.9%, which was similar to the increase recorded in 2020.

- Foreign trade has been growing despite the generally unfavorable environment. In 2020, China recorded a YOY increase of 3.6% in exports, and exports contributed 0.64 percentage points to economic growth for the year. Meanwhile, in Q4, the country's trade surplus reached a historical high of USD 211.7 billion. The impressive performance of exports was largely driven by the soaring demand abroad for epidemic prevention supplies and electronic products under the "stay-at-home economy" that resulted from the global outbreak of COVID-19. During 2021, the global economy has hastened its recovery, and economic stimulus has been implemented on a large scale, which has caused commercial investors in some developed economies to regain their confidence. Within this context, external demand has rebounded; and in 2021 Q1, exports continued to boom. During Q1, exports increased by 49% YOY, and the country's trade surplus amounted to USD 116.3 billion, up USD 103.7 billion from 2020 and USD 43.7 billion from 2019.

Figure 2 The quarterly contribution of the three drivers of GDP growth (%)



Source: Wind, KPMG analysis

Figure 3 Annual YOY growth in investment, consumption and exports (%)

Source: Wind, KPMG analysis

Countercyclical monetary policies have ensured that the banking system maintains reasonably adequate liquidity

In 2020, the PBOC strengthened countercyclical measures by lowering interest rates and the required reserve ratio (RRR), providing for special refinancing and rediscounting, and using innovative monetary-policy tools to alleviate the negative impact of the pandemic on the economy. In this way, the central bank was able to ensure that the banking system maintained reasonably adequate liquidity to help micro, small and medium-sized enterprises (MSMEs) overcome any fund shortages.

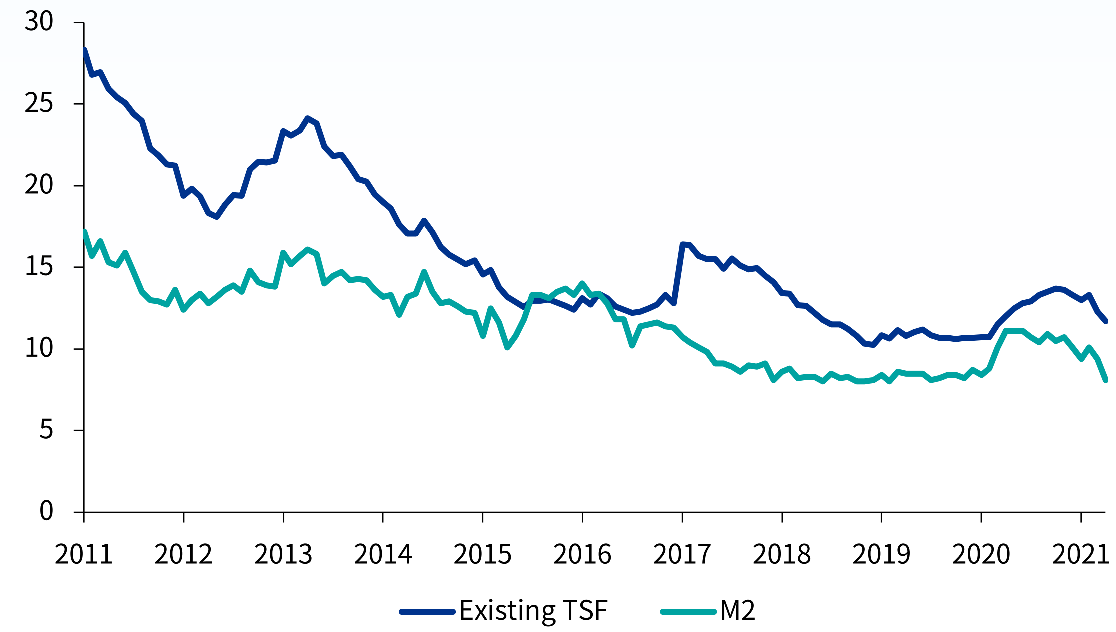
According to the central bank's statistics, the financial system surrendered RMB 1.5 trillion in profits to help other sectors of the economy save costs in 2020. The financial system surrendered profits in various ways. For example, RMB 590 billion was surrendered due to the interest rate cut following loan prime rate (LPR) reform; RMB 46 billion was surrendered through the granting of preferential loans supported by refinancing and rediscounting; bond issuers surrendered RMB 120 billion due to the lower bond interest rate; and RMB 380 billion was surrendered as a result of extensions of principal and interest repayment and inclusive loans granted directly to MSMEs. The China Banking and Insurance Regulatory Commission (CBIRC) also encouraged banks to surrender a portion of their profits by reducing fees, supporting corporate restructuring and conducting debt-to-equity swaps; these surrendered profits were estimated to have amounted to RMB 420 billion[1].

As at the end of 2020, total social financing (TSF) had increased by 13.3% YOY, and the broad money supply (M2) had increased by 10.1% YOY; both of these increases were significantly higher than the 3% growth rate in nominal GDP (Figure 4). Overall corporate funding costs declined considerably; the weighted average interest rate of corporate loans in December 2020 was 4.61%, which was 0.51 percentage points lower than that in December 2019. The figure dropped further to 4.56% in February 2021, reaching its lowest level since 2015. As the economic recovery continued to gain momentum during 2021 Q1, liquidity also returned to normal; and TSF increased by 12.3% YOY, which was 1 percentage point lower than the increase recorded at the end of 2020. Meanwhile, the broad money supply (M2) increased by 9.4% YOY, which was 0.7 percentage points lower than the growth rate at the end of 2020.

On 30 April at a meeting of the Politburo, officials emphasized that monetary policy in 2021 would focus on structural adjustment, specifically stepping up support for key and vulnerable areas of the real economy while maintaining reasonably adequate liquidity. Using innovative monetary policy tools, the central bank has been channeling liquidity into the technological innovation, green development and SME sectors in order to effectively support the quality development of China's economy. At the meeting, policymakers reiterated the importance of preventing risks in the financial sector, and they also announced the implementation of a mechanism under which local party and government leaders would be responsible for handling fiscal and financial risks. According to government policy, the two primary missions of the financial industry—including the banking industry—are to provide better support and services to the real economy and prevent financial risks.

1 Source: The PBOC's China Monetary Policy Report 2020 Q4 and the disclosure made by Sun Guofeng, head of the Monetary Policy Department of the PBOC, at the press conference of the State Council Information Office in January 2021

Figure 4 Monthly YOY growth in existing TSF and broad money supply (M2) (%)



Source: Wind, KPMG analysis

Author:

Kevin Kang
Chief Economist
KPMG China

1.2 Review and outlook of the banking industry

China's banking sector maintained stability during the year despite the impact of the pandemic. In 2020, assets and liabilities continued to expand; the credit structure was optimized; asset quality was relatively stable; and institutions demonstrated adequate risk mitigation capabilities.

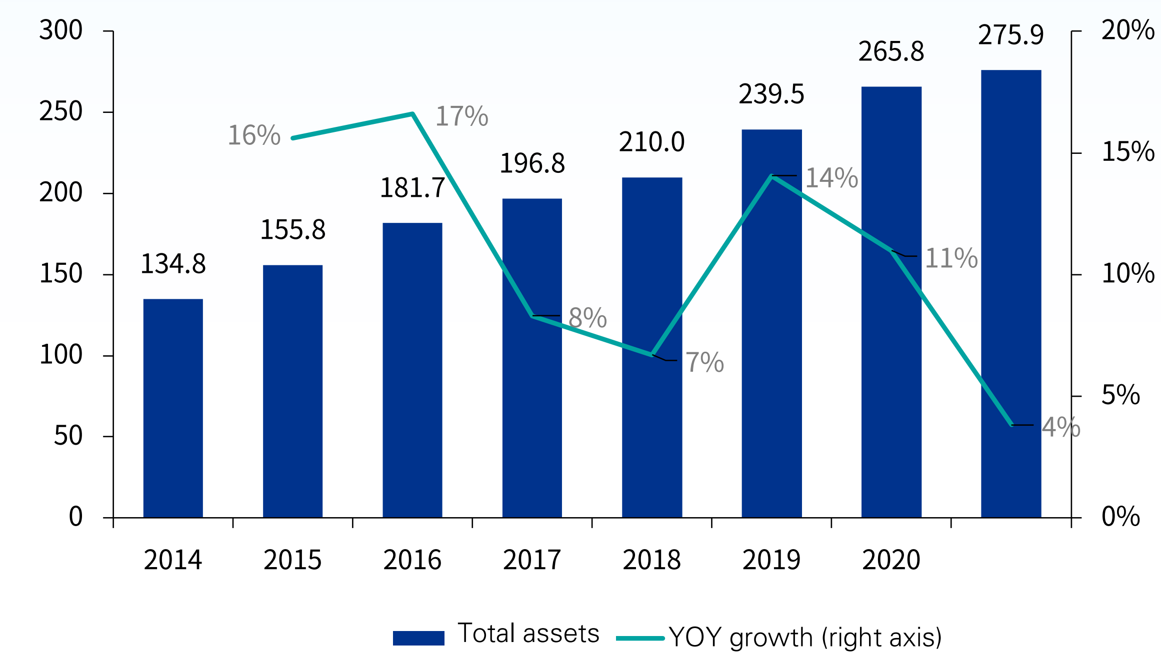
Asset perspective

The rapid expansion of banks' assets has become a driving force for the economic recovery after the pandemic

Since 2020, the banking sector has actively implemented targeted and structural policy tools to cope with the pandemic and provide greater credit support to the real economy, and banks' assets have expanded rapidly as a result. According to the CBIRC's statistics, total assets of commercial banks at the end of 2020 stood at RMB 265.8 trillion[2], representing a YOY increase of 11%. Banks' total assets continued to grow during 2021 Q1, reaching RMB 275.9 trillion (Figure 5) at the end of Q1, which represented a YOY increase of 9.6% and an increase of 3.8% compared to the end of 2020. As the Chinese economy continues to recover, the banking sector's assets may expand at a slightly slower pace in 2021.

2 The commercial banking data quoted in this chapter is sourced from the quarterly data released on a legal entity basis by the CBIRC.

Figure 5 Commercial banks' total assets (in RMB trillions)



Source: Wind, KPMG analysis

The credit structure is being optimized to serve the real economy more effectively

To combat the pandemic and help enterprises resume production, banks granted more RMB loans in 2020. Specifically, RMB loans amounting to RMB 20.03 trillion were granted during the year, representing an increase of RMB 3.2 trillion compared to 2019 and a record high for loans granted during a single year since such recordkeeping began. During 2021 Q1, RMB loans amounting to RMB 7.9 trillion were granted, which represented an increase of RMB 660 billion compared with 2020 Q1.

Structurally, 78% of the total RMB loans in 2020 consisted of medium and long-term corporate and individual loans (Figure 6). The balance of medium and long-term loans granted to the manufacturing industry grew by 35.2% in 2020, which was 20.3 percentage points higher than the increase in 2019. This balance has grown for 14 consecutive months, which is a sign of the increasing support that the financial sector is providing to other sectors of the real economy, especially the manufacturing industry. This trend continued in 2021 Q1 as medium and long-term corporate and individual loans accounted for 81.5% of total loans. Notably, medium and long-term loans granted to the manufacturing industry had surged by 38.8% YOY at the end of February 2021.

To relieve the hardships experienced by MSMEs as a result of the COVID-19 pandemic, financially inclusive policies have been released that more precisely target small and micro enterprises (SMEs). As at 31 December 2020, the balance of inclusive loans granted to small and micro enterprises topped RMB 15 trillion, representing a YOY increase of more than 30%. As at the end of 2021 Q1, the balance of inclusive loans granted to small and micro enterprises stood at RMB 16.67 trillion, which represented a YOY increase of 34.3%, up 4 percentage points from the end of 2020 (Figure 7).

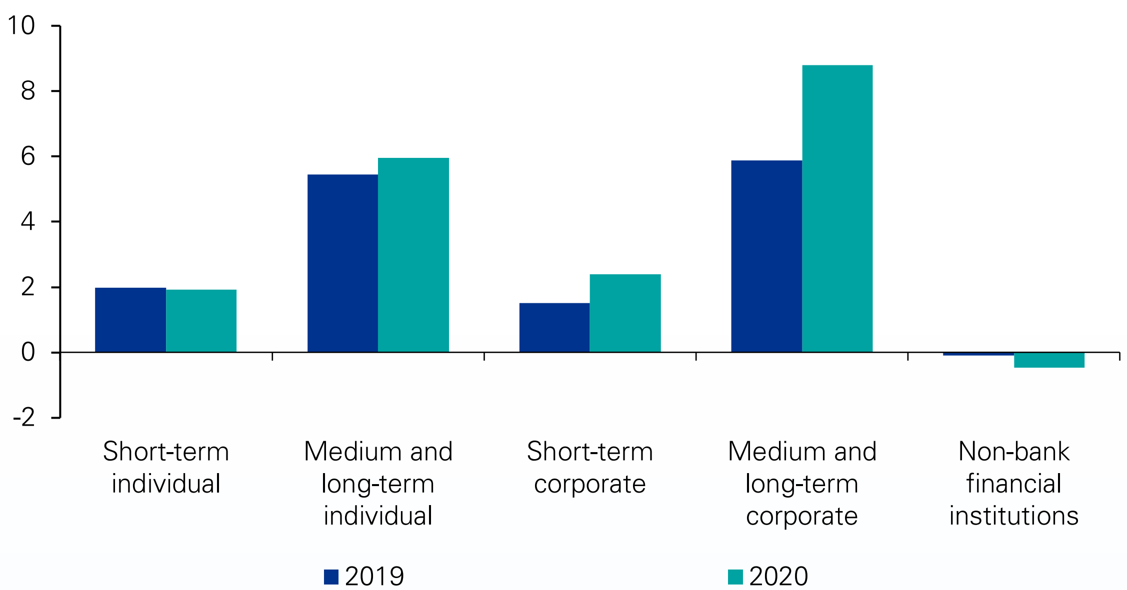
© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

In general, real estate loans account for quite a large share of credit granted by banks, which could reduce the amount of funding supplied to other sectors of the economy. Against this backdrop, regulatory policies are focusing on curbing any potential real estate bubbles and lowering the financialization of the real estate industry. In 2020, RMB real estate loans rose by 11.7%; but the rate of increase had been declining for 29 consecutive months. In addition, in 2020, RMB real estate loans recorded the lowest growth rate among all other types of loans for the first time in 8 years. In 2021 Q1, the growth rate dropped further to 10.9%, demonstrating the gradual downward trend in the growth of this category of loans.

At the end of 2020, the PBOC and the CBIRC issued the Notice on Establishing a System for Managing the Concentration of Real Estate Loans in Banking Institutions (the "Notice"), which stipulates different regulatory indicators for various financial institutions regarding the ratio of real estate loans and the ratio of individual housing loans. The Notice became effective on 1 January 2021.

On 26 March 2021, several authorities and departments jointly issued the Notice on Preventing the Diversion of Loans for Business Purposes into the Real Estate Field in Violation of Rules to vigorously combat the diversion of loans designated for personal business purposes into the real estate field. These policies, which put into practice the "housing is for living in, not for speculation" principle, are designed to optimize the country's credit structure and ensure that an ample supply of funds is made available for infrastructure investment, the transformation and upgrading of the manufacturing industry chain, and SMEs and private enterprises.

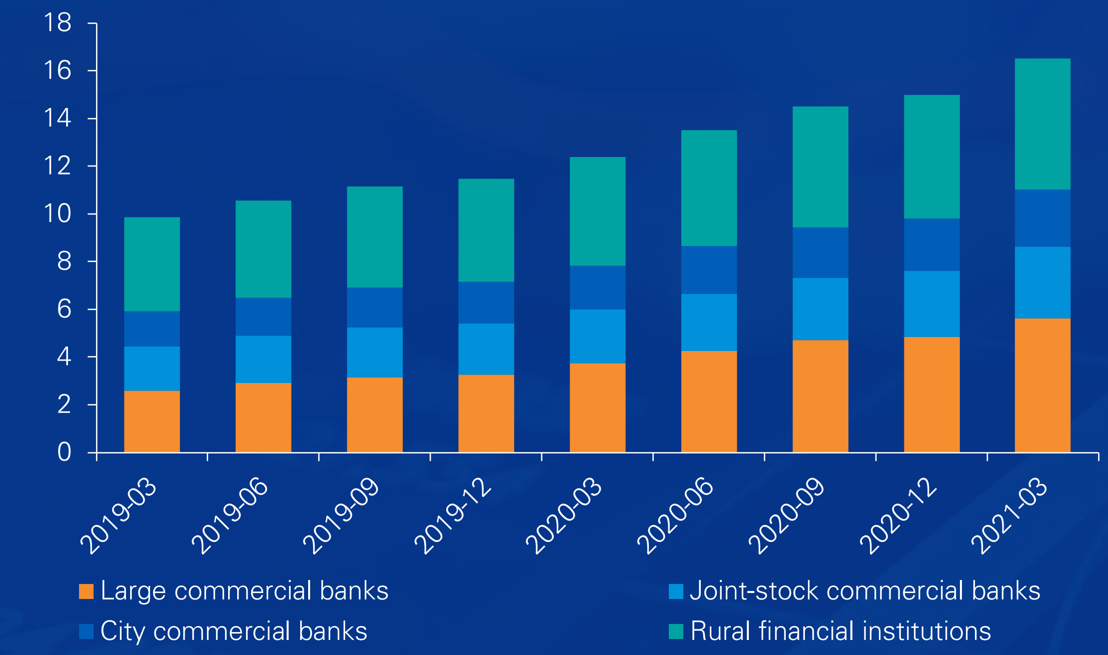
Figure 6 Composition of new RMB loans (in RMB trillions)



Source: Wind, KPMG analysis

Figure 7 The quarterly balance of inclusive loans granted to SMEs by bank type

(in RMB trillions)



Source: Wind, KPMG analysis

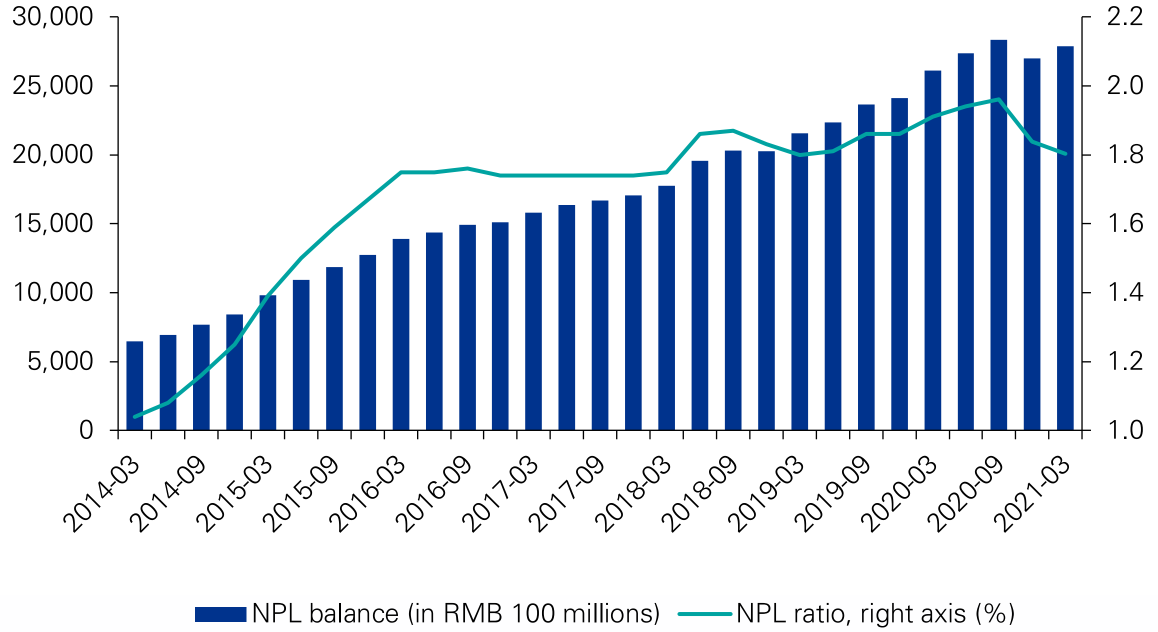
Non-performing loans (NPLs) are displaying various trends, but banks should be vigilant in respect of lagging credit risk

In 2020, the total NPL balance of commercial banks increased, but their overall NPL ratio declined. As one might expect, the amount of NPLs went up during the pandemic. As at the end of 2020, the NPL balance of commercial banks totaled RMB 2.7 trillion, up RMB 287.98 billion or 11.9% from the end of 2019. The NPL balances of large commercial banks, rural commercial banks and joint-stock banks constituted the majority of the total balance; and their balances had increased RMB 209.25 billion, RMB 97.21 billion and RMB 20.28 billion respectively from the end of 2019. However, at the end of 2020, the NPL ratio of commercial banks had fallen by 0.06 percentage points from the end of 2018 to 1.84%. Except for large commercial banks and private commercial banks, the NPL ratios of all other types of commercial banks declined from the end of 2019.

During 2021 Q1, the trend of rising NPL balances and declining NPL ratios continued. Specifically, the NPL balance of commercial banks stood at RMB 2.8 trillion at the end of 2021 Q1, up RMB 86.77 billion from the end of 2020. Within this balance, the NPL balance of large commercial banks and city commercial banks grew rapidly—by RMB 24.22 billion and RMB 47.87 billion (Figure 8) respectively. Meanwhile, the NPL ratio of commercial banks stood at 1.8% at the end of 2021 Q1, down 0.04 percentage points from the end of 2020. Except for the slight rise recorded by city commercial banks and foreign-funded banks, the NPL ratios of other types of commercial banks declined to various degrees (Figure 9).

In our view, the rising NPL balance and declining NPL ratio can be explained from two perspectives. The declining NPL ratio demonstrates the continued recovery of the Chinese economy and the stable quality of bank assets. On the other hand, credit relaxation in 2020 and the centralized granting of bank credit in early 2021 increased the amount of loans at a faster pace than the growth in NPLs. The rising NPL balance is mainly caused by the following factors. First, China's economy is still regaining its vitality; and some sectors, including foreign trade, the service industries, and SMEs, have not yet entirely overcome the impact of the pandemic. Within this context, the quality of bank assets reflects prevailing microeconomic conditions to a certain extent. Second, the exposure of risks associated with commercial banks' NPLs often lags behind certain events; meanwhile, the policy to defer SMEs' principal and interest repayments was extended again to the end of 2020. For this reason, banks should be cautious in respect of lagging credit risk.

Figure 8 Quarterly balance and ratio of non-performing loans of commercial banks

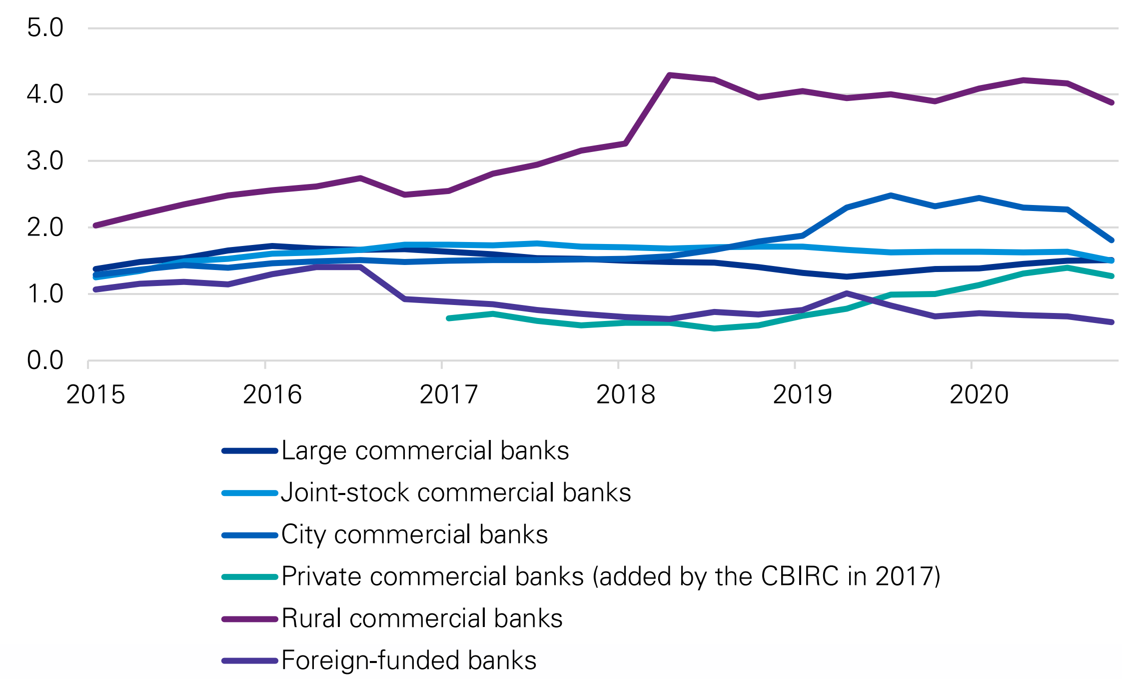


Source: Wind, KPMG analysis

Two other key measures of a commercial bank's risk control ability are its provision coverage ratio and its loan provision ratio. The provision coverage ratio of commercial banks has been rising since 2020 Q3. The ratio stood at 184.5% at the end of 2020, before increasing slightly to 187.1% at the end of 2021 Q1. Conversely, the loan provision ratio has been declining since 2020 Q3. Commercial banks' loan provision ratio stood at 3.39% at the end of 2020, before declining by 0.01 percentage point during 2021 Q1. These two indicators show that commercial banks are well prepared for any lagging financial risks, and have established an adequate buffer as a foundation for future business growth and risk mitigation (Figure 10).

Meanwhile, regulators are also urging financial institutions to strengthen risk prevention and increase NPL disposals. The CBIRC's statistics show that NPLs totaling RMB 8.8 trillion were disposed of during the period from 2017 to 2020, more than the entire sum of NPLs disposed of over the previous 12 years[3] . In 2021, banks will go to greater lengths to dispose of NPLs in order to provide more room for credit growth and effectively mitigate credit risk.

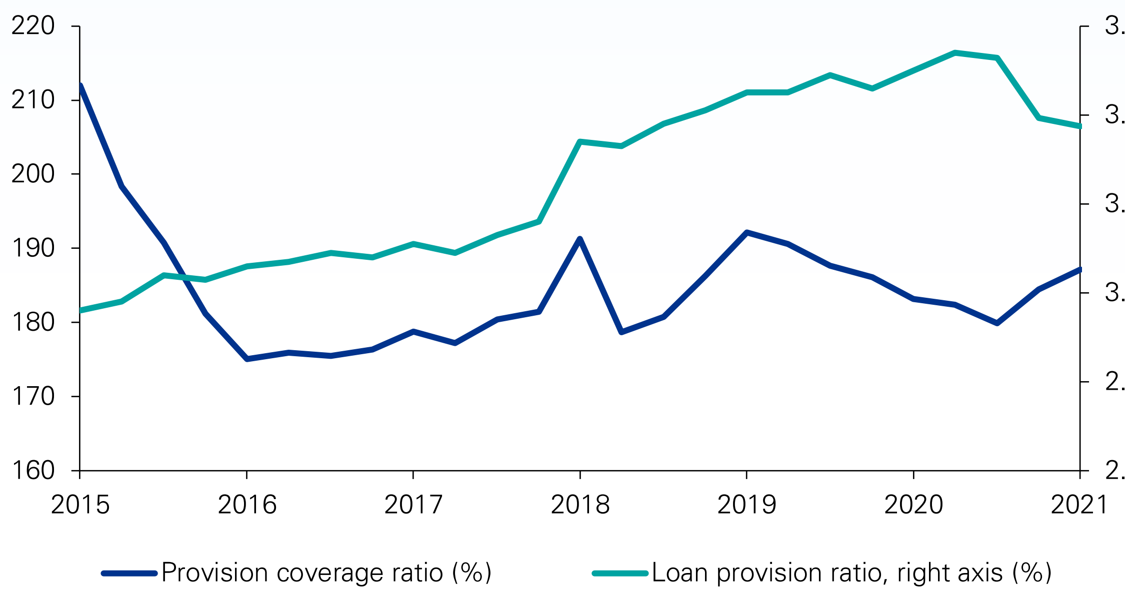
Figure 9 Quarterly non-performing loan ratios of different commercial banks (%)



Source: Wind, KPMG analysis

3 CBIRC: "Real Estate Bubbles and the Financialization of the Real Estate Industry Has Been Curbed," Xinhua News Agency, 3 March 2021,http://www.xinhuanet.com/2021-03/03/c_1127159880.htm

Figure 10 Quarterly loan provision ratio and provision coverage ratio of commercial banks



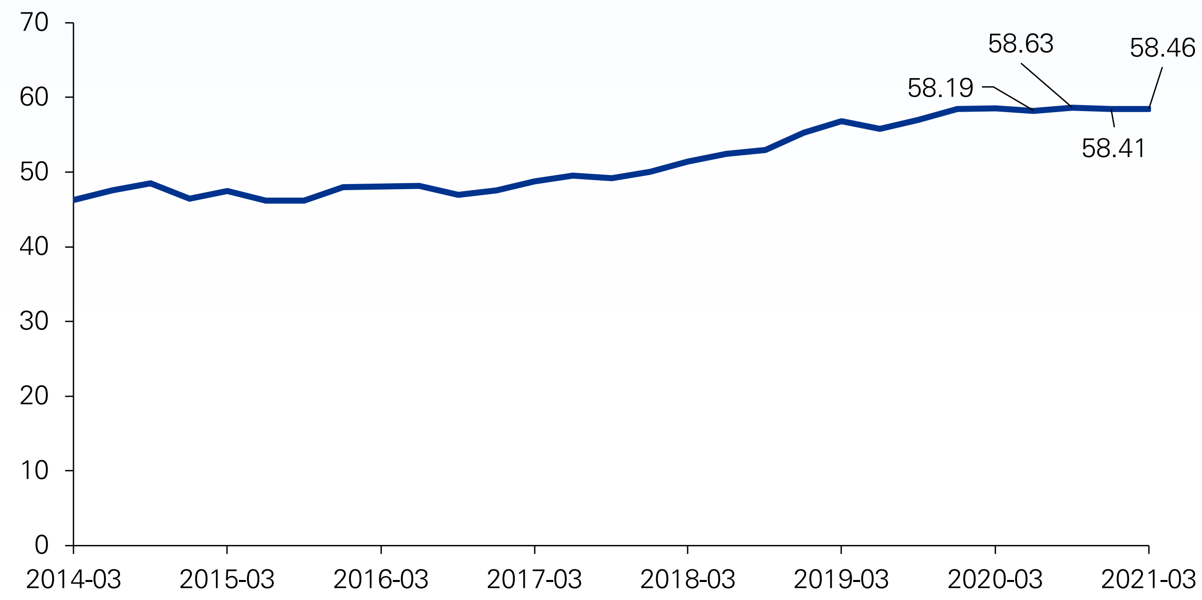
Source: Wind, KPMG analysis

Adequate liquidity and risk mitigation capabilities

In 2020, commercial banks maintained adequate liquidity and robust risk management. As at the end of 2020, the liquidity ratio of commercial banks stood at 58.4%, down 0.1% from the end of 2019; but the ratio had ticked up to 58.5% at the end of 2021 Q1 (Figure 11). In general, banks maintained liquidity coverage ratios above 100% in 2020. Following a downturn during 2020 Q3, the sector's overall liquidity coverage ratio surged by 7.8 percentage points at the end of 2020. In 2021 Q1, the liquidity coverage ratio decreased by 4.7 percentage points from the end of the previous quarter (Figure 12). In recent years, commercial banks have generally kept liquidity risk under control.

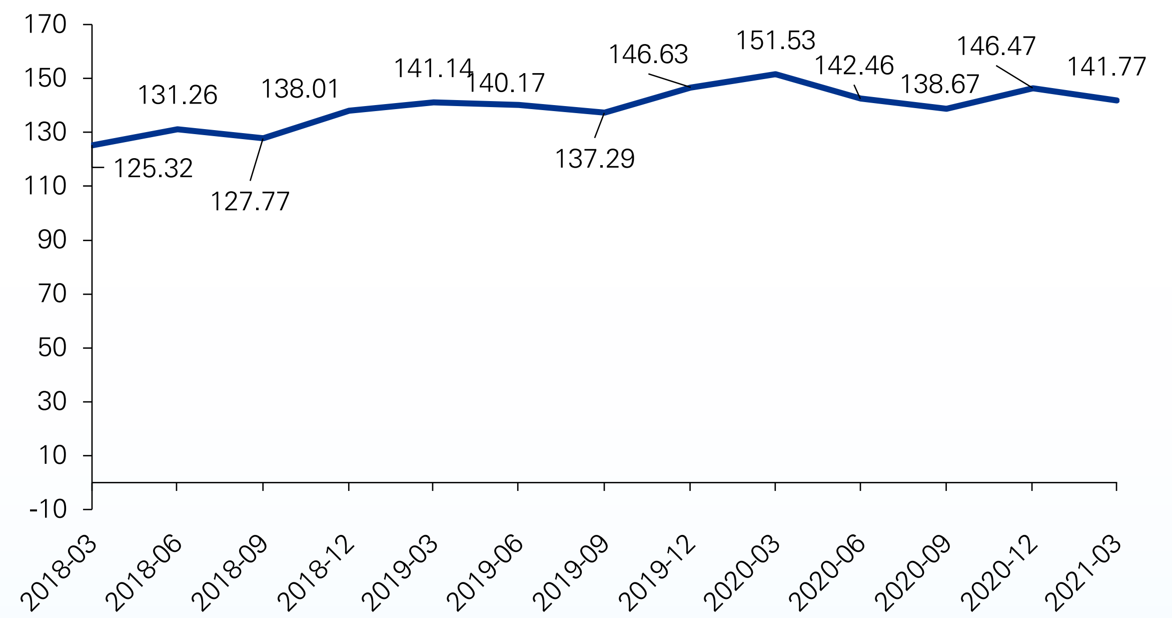
Total interbank lending stood at RMB 147.1 trillion in 2020, representing a YOY decline of 3%. The monthly weighted average interest rate for interbank lending was volatile throughout 2020, and it reached a low of 1.1% in April 2020 as the supply of funds for interbank lending was relatively loose. In the second half of 2020, the monthly weighted average interest rate for interbank lending began increasing, and it rebounded to 2.13% in October 2020. The rate then plateaued for a time until descending to 1.3% at the end of 2020. Total interbank lending stood at RMB 2.9 trillion in 2021 Q1, a YOY decline of 10%. The monthly weighted average interest rate for interbank lending began trending upward again during 2021 Q1. Banks generally maintained adequate liquidity and risk mitigation capabilities in the period from 2020 to 2021 Q1 (Figure 13).

Figure 11 Quarterly liquidity ratio of commercial banks (%)



Source: Wind, KPMG analysis

Figure 12 Quarterly liquidity coverage ratio of commercial banks (%)



Source: Wind, KPMG analysis

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Liability perspective

The growing scale of commercial banks' liabilities

As at the end of 2020, commercial banks' total liabilities amounted to RMB 244.5 trillion, representing a YOY increase of RMB 24.5 trillion or 11.13%, which was 2.5 percentage points higher than the growth rate in 2019 (Figure 14). As at the end of 2020 Q1, commercial banks' total liabilities amounted to RMB 253.8 trillion, representing an increase of 9.63%, which was 1.5 percentage points lower than the growth rate in 2020 Q4.

Large commercial banks' cost of interest-bearing deposits has decreased as a result of stronger management of liability business

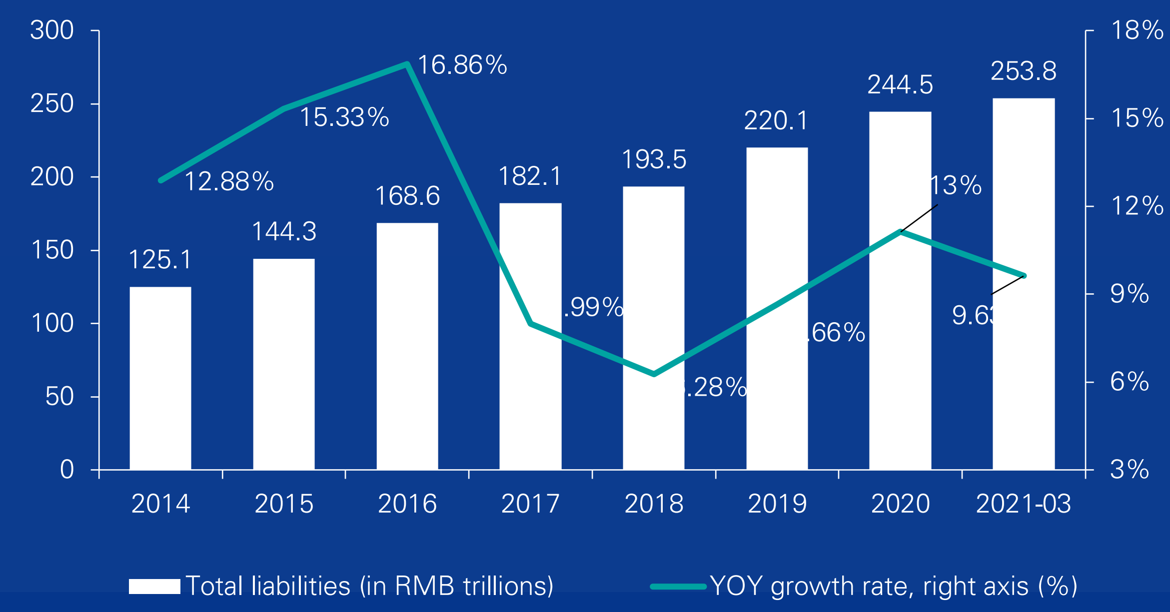
In 2020, the six state-owned commercial banks' cost of interest-bearing deposits was 1.68% on average, which was 0.05 percentage points lower than the cost of interest-bearing deposits in 2019 (Figure 15). This reduction in comparison to 2019 evidences the general effectiveness of efforts to decrease the cost of interest-bearing deposits during the year.

As the capital market becomes increasingly sophisticated, commercial banks have also innovated their deposit products and models to actively compete in liability businesses; and as a result, managing this type of business has become increasingly difficult. On 23 March 2021, the CBIRC formally promulgated the Administrative Measures for the Management of Commercial Banks' Liability Quality (the "Measures"), which set out six criteria for assessing the quality of banks' liabilities, with the goal of strengthening commercial banks' management of liability business and maintaining the stability of banks' liabilities. According to these measures, commercial banks are required to establish a business management and risk control system when developing innovative business in order to mitigate any negative impacts resulting from overheated competition in the liability business market. Going forward, liability business in commercial banking is expected to be subject to more robust management; stricter controls will be imposed on business innovation; and banks will face less pressure in respect of liabilities.

Figure 13 Monthly weighted average interest rate in China's interbank market (%)

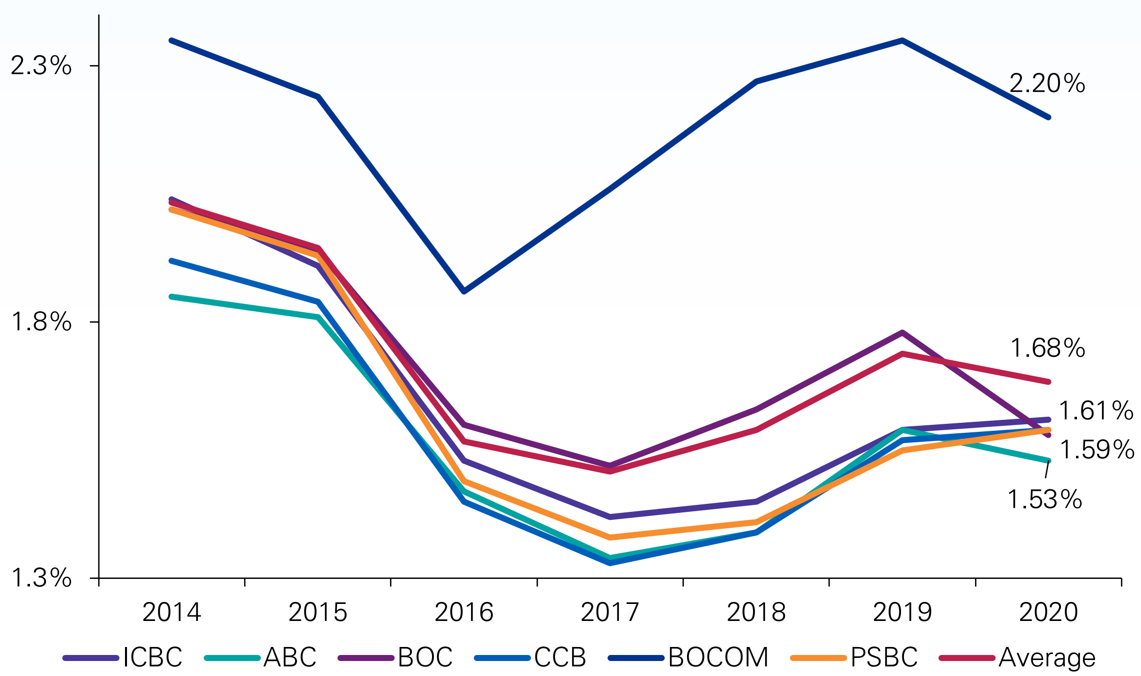
Source: Interbank Lending Statistics from the Statistics and Analysis Department of the PBOC, KPMG analysis

Figure 14 Total liabilities and liability growth rates of Chinese commercial banks



Source: Wind, KPMG analysis

Figure 15 Deposit interest rates of China's six major state-owned commercial banks



Source: The six state-owned commercial banks' 2020 annual reports, KPMG analysis

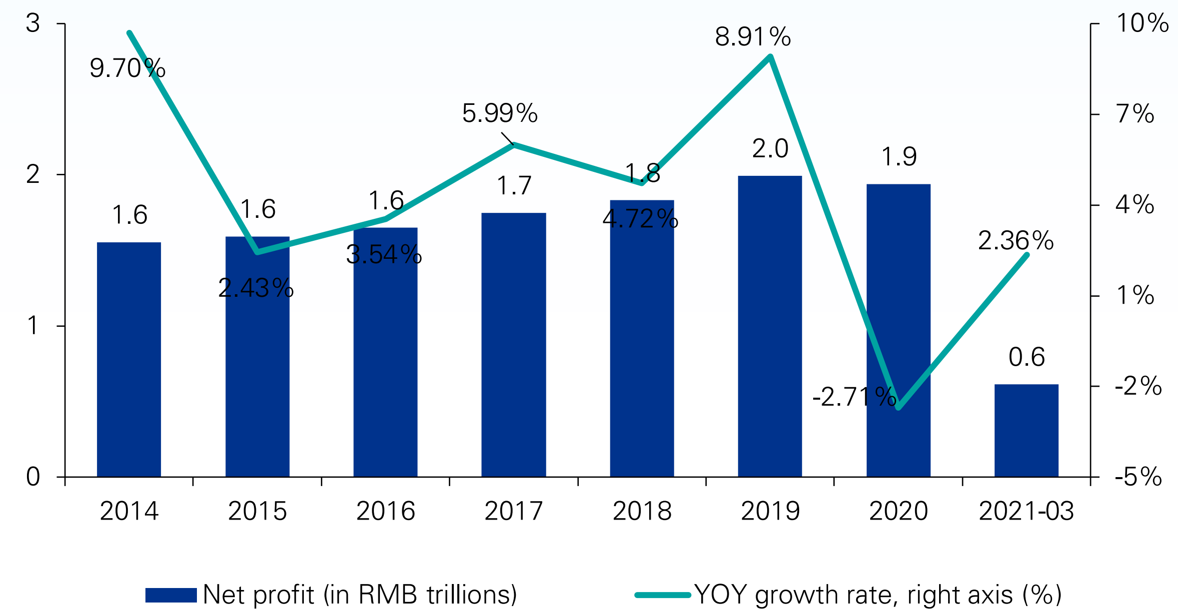
Profit perspective

Commercial banks' profitability decreased in 2020, but resumed growth in 2021 Q1

In 2020, financial institutions were generally urged by macroeconomic policy to serve the real economy, and corporate financing costs declined due to the support provided by financial institutions. As at the end of 2020, the banking industry achieved the goal set at the beginning of the year to surrender RMB 1.5 trillion in profits to help other sectors of the economy save costs. Banks also increased their NPL disposals and provision ratios. In 2020, banks disposed of RMB 3.02 trillion of NPLs. Against this backdrop and as a result of the pandemic and global economic downturn, the net profit of commercial banks totaled RMB 1.94 trillion in 2020, which represented a YOY decrease of RMB 53.99 billion or 2.7% (Figure 16). As at the end of 2020, both average return on capital and average return on assets had decreased compared to 2019. At the 2020 year end, average return on capital stood at 9.48%, 1.5 percentage points lower than in 2019, while average return on assets stood at 0.77%, 0.1 percentage points lower than in 2019 (Figure 17). These figures show that the banking industry's profitability is generally under pressure.

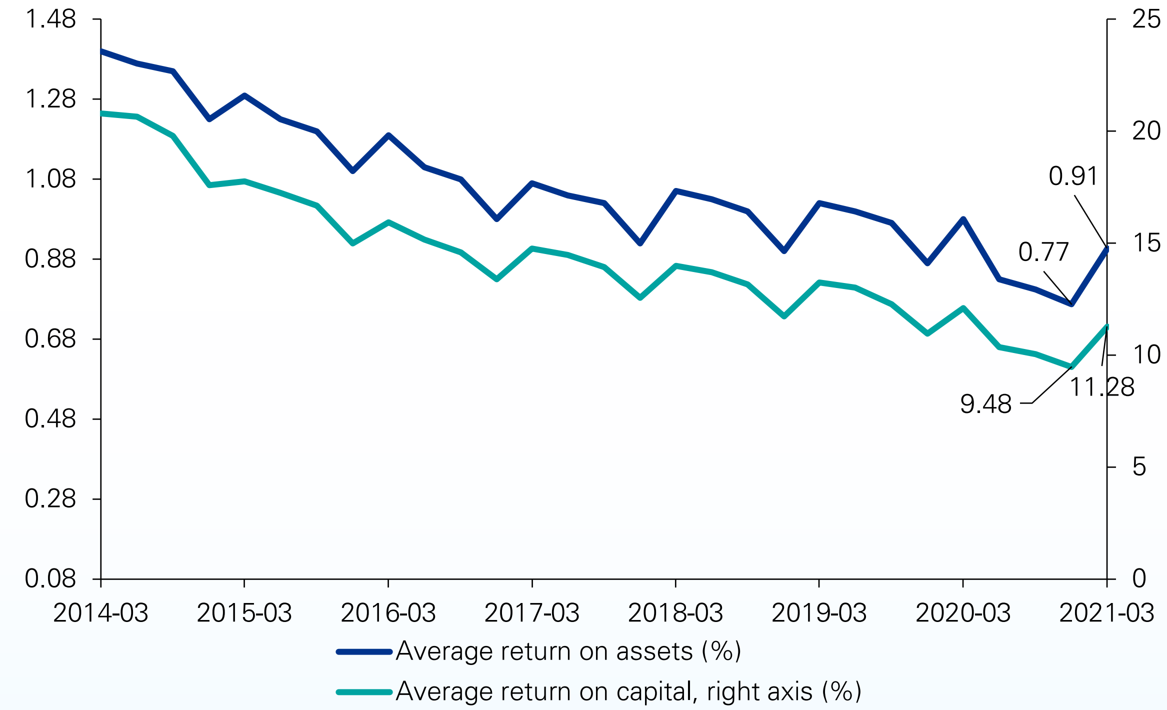
As the economy resumed growth in 2021 Q1, the quality of assets in the banking industry generally improved, and commercial banks have been subject to less pressure to record provisions for their assets. As a result, profits are growing at a faster pace. As at the end of 2021 Q1, the net profit of commercial banks totaled RMB 0.6 trillion, representing a YOY increase of 2.36%. Meanwhile, commercial banks' average return on capital and average return on assets rose by 1.8% and 0.1% respectively compared to the end of the last quarter.

Figure 16 Net profits and growth rates of China's commercial banks



Source: Wind, KPMG analysis

Figure 17 Average quarterly return on assets and average quarterly return on capital of China's commercial banks

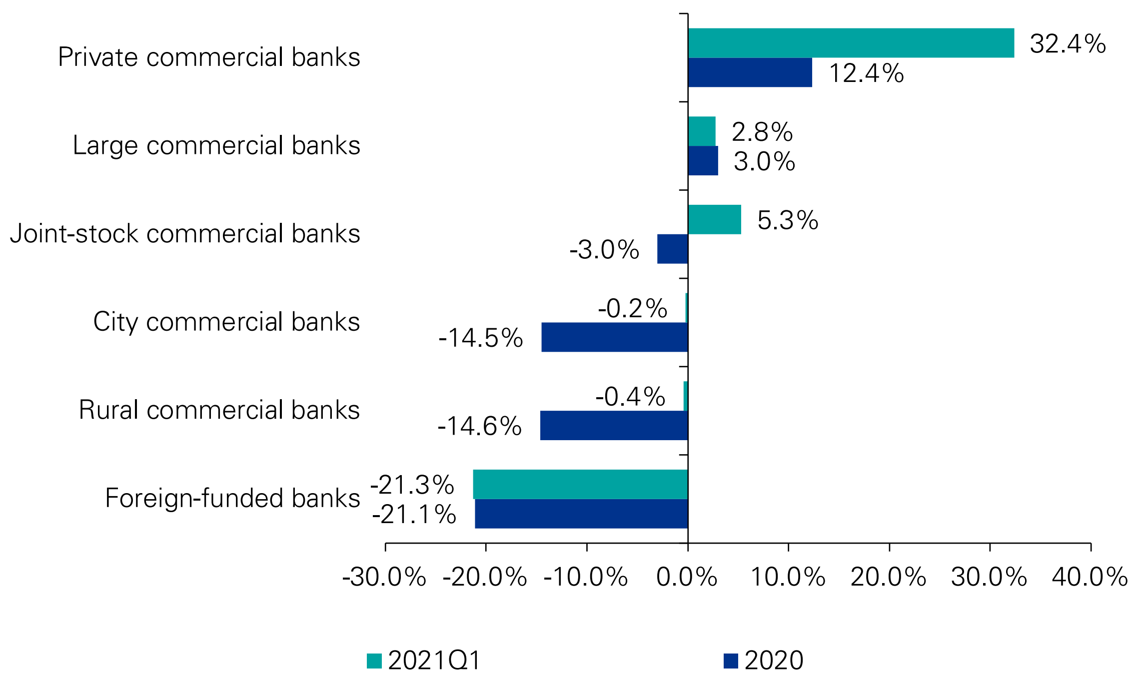


Source: Wind, KPMG analysis

Divergent profitability levels among commercial banks

Private commercial banks and large commercial banks recorded positive net profit growth in 2020; but foreign-funded banks', rural commercial banks' and city commercial banks' net profits plunged. In general, banks were able to regain their footing and resume profit growth during 2021 Q1. During this period, private and joint-stock commercial banks and large commercial banks kept pace with the industry as whole in sustaining positive net profit growth; in general, private and joint-stock commercial banks saw larger net profit gains, while the gains experienced by large commercial banks were more stable. City commercial banks and rural commercial banks have also been improving their profitability, but the profitability of foreign-funded banks continued to decline (Figure 18).

Figure 18 YOY growth rate of net profits of different commercial banks

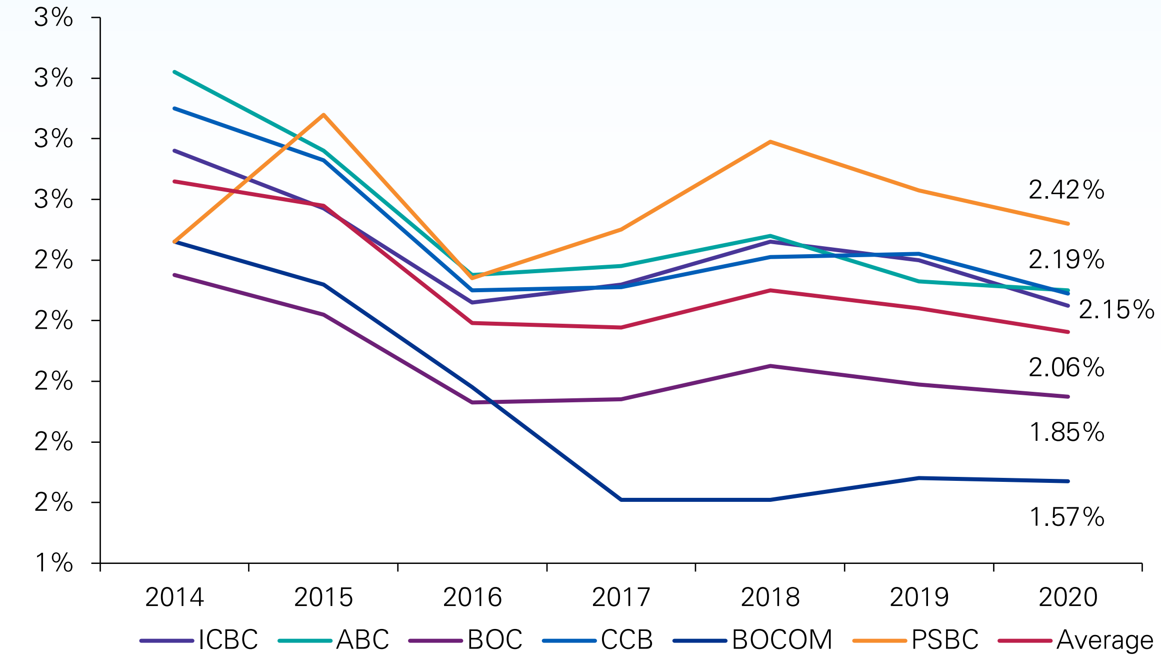


Source: Wind, KPMG analysis

Slight decrease in net interest margins of the six large commercial banks

As a result of the declining profitability of the industry as a whole in 2020, the six large commercial banks' net interest margins were squeezed to various degrees. The average net interest margin of the six state-owned commercial banks fell by 0.08 percentage points compared to the end of 2019 (Figure 19).

Figure 19 Net interest margins of China's six major state-owned commercial banks (%)



Source: The six state-owned commercial banks' 2020 annual reports, KPMG analysis

Outlook

In 2021, pandemic control measures have become routine and the vaccination program is moving into full swing; and as a result, the world economy is finally starting to recover. In April 2021, the International Monetary Fund (IMF) issued the World Economic Outlook, which projected world economic growth to be 6% for the year, up 0.5 percentage points from the previous forecast. The improving economy is creating a better environment for banks around the world to improve their performance and the quality of their assets. At the same time, we should also be aware of the new COVID-19 waves and virus mutations in Southeast Asia; and we should bear in mind that the world economy still faces the threat of a downturn, as well as supply and demand imbalances and the resulting financial market fluctuations caused by rising commodity prices.

In China, as the economy continues to recover, consumption and investment are rising again, and the country's banking industry is on the upswing as well. In 2021 Q1, banks' assets and liabilities expanded; profitability improved; and NPLs increased moderately. 2021 marks the first year in the 14th Five-Year Plan (14th FYP) period, and it is a critical year for the new "dual circulation" development model, which "takes domestic circulation as the mainstay while also promoting the mutual reinforcement of domestic and international circulations." Against this backdrop, support from the financial industry is indispensable for both technological innovation and industrial upgrading, and the banking sector is playing a particularly important role in these areas.

In order to succeed going forward, "future banks" no longer have a choice—they must accelerate digital transformation, promote green finance, and implement inclusive finance initiatives, among other innovative strategies, while also strictly controlling financial risks. By pursuing these strategies, they can work to shape the future of commercial banking.

Vigorously developing green finance

According to the 14th FYP, China aims to reach peak CO2 emissions by 2030 and achieve carbon neutrality before 2060. The funding that will be required to achieve peak emissions and carbon neutrality is estimated to be in the RMB trillions. For instance, the National Centre for Climate Change Strategy and International Cooperation (NCSC) has estimated that in order to achieve both peak emissions by 2030 and carbon neutrality by 2060, new investment demand in climate-related sectors will reach RMB 139 trillion by 2060, an increase of RMB 3.5 trillion each year. This figure represents 3.4% of GDP and approximately 6.7% of the entire country's total fixed asset investment in 2020. As a result, a long-term funding gap of more than RMB 1.6 trillion will arise each year[4].

The government can only meet a small portion of the huge demand for funding. Most of the demand will have to be met through the financial system, in which banks play a leading role. With the support of national policies and industrial innovation, green finance has been booming in recent years, and it has become a new driver of supply-side structural reform. The PBOC's statistics show that China's green loan balance at the end of 2020 amounted to approximately RMB 12 trillion, the largest in the world, while its green bond balance ranked second at RMB 813.2 billion[5].

4 "Accelerating the Establishment of a Long-term Mechanism for Green Finance," China Business Network, 20 March 2021, https://m.yicai.com/news/100993074.html

5 Briefing Transcript of the State Council Information Office on Green Finance, official website of the People's Bank of China, 9 February 2021, http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4191657/index.html

Commercial banks should seize the prime opportunities associated with green finance and quickly develop green finance strategies that are oriented to the country's peak emissions and carbon neutrality goals. In particular, banks should pay attention to the following three areas:

- Banks should lead by example and actively participate in the development of their own emission reduction plans and timetables, and strengthen their disclosure of carbon footprint and ESG-related information;

- While supporting the development of green industries, banks should also keep an eye on traditional industries, especially the transformation and upgrading of high-emission enterprises. When innovating green finance products, banks need to figure out how to help those enterprises transition toward low-carbon operations while also controlling financial risks;

- As institutional investors, banks' green investment philosophies are generally shaped by their investees. Commercial banks should establish their own system of ESG investment strategies, take into account ESG considerations when making investment decisions, and select investees that generate long-term value. Internationally, the green transformation of enterprises and industries is closely related to the initiatives of green investors. In February 2021, the China Securities Regulatory Commission (CSRC) included ESG information in its Guidelines for the Investor Relations Management of Listed Companies (Exposure Draft) for the first time and specifically recommended the disclosure of related information.

Enhancing financial inclusiveness

The 14th FYP specifically requires enhancing financial inclusiveness, and the development of financial inclusion is one of the key agendas in commercial banks' business transformations. By the end of 2020, China had a total of 138 million registered market entities[6]. SMEs and owner-operator businesses account for a majority of financial inclusion targets and constitute an indispensable part in China's economy. These enterprises play a pivotal role in increasing employment, improving people's livelihoods and promoting economic recovery.

Financial institutions, including banks, often find it difficult to obtain adequate information when conducting credit assessments for SMEs due to their small size, inadequate collaterals, weak risk mitigation capabilities and uncertain development prospects. From the perspective of banks, these factors result in high marginal costs for risk control; and therefore, banks do not have much incentive to serve these enterprises. SMEs face many difficulties and high costs in respect of financing. In the 2021 Government Work Report, China called for financially inclusive loans to be provided to SMEs. In particular, large commercial banks have been urged to increase loans to SMEs by more than 30%. In addition, banks will be expected to implement specific financial support measures, such as deducting fees and providing financing guarantees for SMEs, improving compensation for loan risk sharing, and implementing innovative financial service models for supply chains. We expect that new loans granted to such enterprises in 2021 will amount to RMB 1.45 trillion, which will provide a significant stimulus for these entities[7].

6 *The 14th Five-Year Plan: Macro Trends and Opportunities,* KPMG China, April 2021, https://home.kpmg/cn/zh/home/insights/2021/04/14th-five-year-plan-macro-trends-and-opportunities.html

7 "SMEs usher in a new round of financing innovation policies," the State Council website of the People's Republic of China, 10 March 2021, http://www.gov.cn/zhengce/2021-03/10/content_5592161.htm

Accelerating digital transformation in the banking sector

The 14th FYP calls for "steadily developing fintech capabilities and accelerating the digital transformation of financial institutions." Going forward, digital transformation will be the key for commercial banks looking to succeed against their competitors. During the COVID-19 outbreak, customer services and financial business could not be handled in person, which provided a real-life stress test for banks' digital transformations.

Essentially, digital transformation is the process of using digital technologies to connect all of an enterprise's applications and integrate business, technologies and data. When promoting digital transformation, commercial banks should start with strategic deployment and then undertake value-driven structural transformation and organizational reform. They should be careful not to skip any steps in this process. Commercial banks should understand that digitalization does not simply refer to the development of online products, but to an overhaul of strategic management and corporate culture, as well as the reshaping of their governance, organizational structure, and talent capabilities.

Strengthening financial risk prevention

The 14th FYP attaches the same importance to financial security as it does to food security and energy security, which demonstrates the increasing significance of the financial sector. As a result of the pandemic, the transitional period for the new asset management regulations, which was originally scheduled to conclude at the end of 2020, has been extended to the end of 2021. Nevertheless, financial regulation is still focusing on the role of the financial sector in supporting the development of and channeling funds to the real economy to avoid a situation in which funds remain idle. Meanwhile, regulators are still emphasizing restrictions on shadow banks, the end of guaranteed repayment, de-leveraging, channel business downsizing and the net value-based approach. Recently, commodity prices have been soaring; and in its 50th meeting in April 2021, the Financial Stability and Development Committee under the State Council specifically emphasized the need to keep a close watch over commodity prices in order to maintain the basic stability of general prices, while also ensuring the continuity and stability of financial policies in general to keep financial risks at bay.

In addition, authorities are also focusing on regulating local governments' implicit debts, strengthening the identification and disposal of non-performing assets, and optimizing the long-term mechanism for the supervision of Internet finance.

Author:

Kevin Kang
Chief Economist
KPMG China

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

1.3 Strictly complying with regulatory guidelines to prevent financial risks

(1) The 14th FYP and 2035 vision light the path forward for the financial sector

In March 2021, the National People's Congress and the Chinese People's Political Consultative Conference discussed and passed the Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and the Long-Range Objectives Through the Year 2035 (the "14th FYP"). 2021 marks the year of the establishment of a moderately prosperous society in China as well as the 100th anniversary of the founding of the Communist Party of China. In addition, it is also the first year of the 14th FYP period. The 14th FYP not only focuses on China's development in the next 5 years, but also outlines future objectives to be achieved by 2035, essentially charting the direction of China's economy in the medium to long term.

As a "vanguard" in the effort to drive reform and opening up, the financial industry plays a critical role in the 14th FYP. Specifically, the industry is required to do the following:

- Deepen the supply-side structural reform of the finance sector; establish a modern central banking system, strengthen control over the money supply; optimize the financial system and its structure; deepen the reform of state-owned commercial banks; accelerate the enhancement of small and medium-sized banks' and rural credit cooperatives' governance structures; regulate the development of non-bank financial institutions; and promote financial inclusion.

- Develop sound corporate governance in financial institutions; strengthen the regulation of shareholders' equity and related-party transactions; and modernize the financial regulation system to enhance transparency and rule of law in financial regulation.

- Steadily open up the banking, securities, insurance, funds, and futures sectors, among other financial fields, to more closely link domestic and overseas capital markets and refine the QFII system.

- The 14th FYP calls for the establishment of a robust "Belt and Road" financial collaboration network to connect financial infrastructure and support the participation of multilateral and national financial institutions in investment and financing. In addition, the 14th FYP urges leading multilateral financial institutions to further their governance reform in support of the Asian Infrastructure Investment Bank and the New Development Bank, with a view to enhancing their participation in international financial governance.

- Systemically important financial institutions and financial holding companies will be subject to stricter regulation to improve debt risk identification, evaluation and early warning; more effective risk prevention and control mechanisms will be put in place; and the bond market's default resolution mechanism will be optimized.

We think the banking sector will face the following opportunities and major trends[8]. during the 14th FYP period:

- Financial reform and opening up is one of the main themes of the 14th FYP. In the Outline of the 14th Five-Year Plan (the "Outline"), the word "financial" is mentioned for 16 times, and the Outline describes various plans for the financial sector. In view of the banking sector's current dominance in China's financial system, the Outline puts forward multiple goals, including "the further reform of state-owned commercial banks, the sustainable and healthy development of small and medium-sized banks and rural credit cooperatives, and the reform and optimization of policy-based financing." The Outline also calls for the steady advancement of market-oriented interest rate reform and the enhancement of the financial system's resource allocation efficiency. We believe that the financial industry's role in supporting the real economy, the development of digital currency and the strengthening of financial regulation will be the main themes in banking development during the 14th FYP period.

(2) The system for managing the concentration of real estate loans has been formally implemented

In December 2020, the PBOC and the CBIRC issued the Notice on Establishing a System for Managing the Concentration of Real Estate Loans in Banking Institutions (the "Notice"). Specifically, the system requires that the ratio of the balance of real estate loans and individual housing loans to all RMB loans of Chinese-funded banking institutions incorporated in China not be higher than the upper limits determined by the PBOC and the CBIRC.

When setting out the requirements for managing the concentration of real estate loans, the PBOC and the CBIRC classified banking institutions into five grades based on their asset scale and institutional category: large domestic banks, medium-sized domestic banks, small domestic banks and non-county level rural commercial banks, county level rural commercial banks, and village and township banks. To take into account geographical differences, regulators are afforded a certain degree of flexibility when determining the requirements applicable to local banking institutions.

8 *The 14th Five-Year Plan: Sector Impact Outlook*, KPMG, January 2021，https://home.kpmg/cn/zh/home/insights/2021/01/14th-five-year-plan-industry-impact-outlook.html

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Regulators have repeatedly issued warnings about the risks involved in real estate financing, and they have urged the prudent management of real estate financing in recent years. In August 2020, the Ministry of Housing and Urban-Rural Development and the PBOC held a meeting with key real estate enterprises and proposed the "Rules for Fund Monitoring and Financing Management for Real Estate Enterprises" to limit the debt level of real estate enterprises. In the market, these rules are referred to as the "three red lines." Meanwhile, as mentioned above, the rules introduced to manage the concentration of real estate loans restrict the granting of bank credit to the real estate sector on the supply side, which represents another implementation of the "housing is for living in, not for speculation" principle. The Notice also sets out the allowable ratio of individual housing loans to total RMB loans, which will affect consumers and banks' consumer finance business to a certain extent. In an interview, the person in charge of these policies at the PBOC said that the long-term mechanism for the real estate sector has been achieving the desired results. Going forward, the establishment of the system for managing the concentration of real estate loans will instill stable policy expectations in market entities and facilitate the healthy and sustainable development of the real estate market[9].

(3) The Ministry of Finance (MOF) and the CBIRC clarify issues involved in the implementation of the new accounting standards for financial instruments

On 30 December 2020, the MOF and the CBIRC issued the Notice on Further Implementing Relevant New Accounting Standards for Financial Instruments (the "Notice"). The Notice's main provisions are as follows:

- Eligible non-listed banks, asset management products and insurance companies are allowed to postpone the implementation of the new accounting standards to 1 January 2022, or until the implementation date of the *Accounting Standards for Business Enterprises No. 25 – Insurance Contracts*;
- Banking institutions that implement the *New Accounting Standards for Financial Instruments* from 1 January 2021 or later may adopt transitional arrangements for regulatory capital according to their own capital resources in the 5-year period prior to implementation;
- Enterprises adopting the expected credit loss (ECL) approach during the COVID-19 period should pay special attention to documenting reasonable and justifiable information that reflects past events, current circumstances and future economic forecasts.

Small and medium-sized commercial banks generally find it more difficult to transition to the new accounting standards due to their inadequate capital. The Notice also takes into account the uncertainty caused by the pandemic in respect of enterprises' production and operations, and it emphasizes the importance of information disclosure.

(4) The MOF adjusts performance indicators for commercial banks

On 4 January 2021, the MOF issued the Measures for Performance Evaluations of Commercial Banks (the "Measures"). The Measures adjust the performance indicator system for commercial banks and specifically divide the indicators into four dimensions: serving national development goals and the real economy, development quality, risk prevention and control, and business efficiency. Each dimension carries a weight of 25%. The weight of each index is determined according to its importance and guiding function, and can be adjusted dynamically according to national macro policies, the demands of the real economy, and the trend of financial development. The evaluations should focus on commercial banks' performance in serving the real economy and key economic sectors, as well as their vulnerabilities, cost-effectiveness, shareholder returns and asset quality. The Measures apply to state-owned and state-controlled commercial banks, wholly state-owned and state-controlled financial enterprises and substantively managed commercial banks.

The Measures became effective on 1 January 2021, so the performance of commercial banks should be evaluated in accordance with the Measures from 2021 onward.

To ensure the objectivity and fairness of the performance evaluation, commercial banks are required to provide comprehensive and true information for their evaluations. The performance evaluation is based on the financial and accounting reports audited in accordance with the China Standards on Auditing, and the financial statements should be the consolidated financial statements prepared in accordance with PRC GAAP. Performance evaluation information should be reviewed by the independent auditor responsible for auditing the commercial bank's annual financial statements, and the auditor should issue a separate auditor's report thereon.

(5) The extension of principal and interest repayment on inclusive loans granted to SMEs has been continued to relieve NPL pressure on banks

On 31 December 2020, the PBOC and four other authorities jointly issued the *Notice* on the *Continued Implementation of the Policy on Extending Principal and Interest Repayment for Inclusive Loans Granted to Small and Micro Enterprises and the Policy on Supporting Inclusive Unsecured Loans Granted to Small and Micro Enterprises* (the "Notice"), the Notice stipulates:

- The PBOC will continue to use monetary-policy instruments to provide preferential funding support for eligible inclusive loans newly granted by local banking institutions to SMEs;
- Eligible local banking institutions consist of local banking institutions that have been classified in the 1-5 range under the PBOC's current grading system;
- For inclusive loans granted to SMEs that have been extended for not less than 6 months by urban commercial banks, rural commercial banks, rural cooperative banks, rural banks, rural credit cooperatives, private banks and other local incorporated banking financial institutions, the PBOC will use monetary policies to grant incentives amounting to 1% of the extended loan principal.

On 1 April 2021, the aforementioned five authorities jointly issued the *Notice on Further Extending the Deadlines for the Policy on Deferment of Principal and Interest Repayment for Inclusive Loans Granted to Small and Micro Enterprises and the Policy on Supporting Inclusive Unsecured Loans Granted to Small and Micro Enterprises*. The Notice specified that the policy on the extension of principal and interest repayment for inclusive loans and the policy on supporting inclusive unsecured loans granted to SMEs has been extended to 31 December 2021. For inclusive loans granted to SMEs that fall due during the period from 1 April to 31 December 2021, enterprises should negotiate with banks and agree on how to continue the extension of principal and interest repayment. The PBOC will continue to use monetary-policy instruments to provide preferential funding support for eligible inclusive loans newly granted by local banking institutions to SMEs, while also providing greater support to owner-operator businesses.

9 The PBOC and the CBIRC's meeting with the press regarding *the Notice on Establishing a System for Managing the Concentration of Real Estate Loans in Banking Institutions*, PBOC, December 2020, http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/4156117/index.html

In 2021, in order to step up financial support for the real economy and help SMEs overcome economic difficulties, the CBIRC and other authorities jointly introduced two monetary-policy instruments: the provision of certain incentives to local banking institutions for extending principal and interest repayment for inclusive loans granted to SMEs, and the provision of preferential funding support for inclusive loans granted by local banking institutions to SMEs. These measures are helping to mitigate the funding shortage faced by enterprises, and they are improving businesses' operations and the employment rate. The implementation of the Measures demonstrates the principles proposed at the Central Economic Work Conference in 2020, which called for "maintaining the continuity, stability and sustainability of macro policies in 2021" and "ensuring there will be no unexpected policy changes", while also helping to relieve banks' NPL pressure in relation to small and micro loans.

(6) The CBIRC should establish an end-to-end reputational risk management system

On 8 February 2021, the CBIRC issued the *Administrative Measures for the Reputational Risk of Banking and Insurance Institutions (for Trial Implementation)* (the "Measures"). The Measures consist of amendments and improvements to the two sets of guidance on the management of reputational risk that were released in 2009[10] and 2014[11] Considering the trend of reputational risk and its impact on the industry, trust companies and insurance group (holding) companies are also included in the Measures in addition to commercial banks and insurance companies.

The Measures define reputational risk and reputational events for the first time and set out four fundamental principles for reputational risk management: forward-looking perspective, risk matching, full coverage and effectiveness. Under the Measures, banking and insurance institutions are assigned primary responsibility for managing reputational risk. Banking and insurance institutions are also required to establish an end-to-end system and a complete process for reputational risk management that consists of seven processes: pre-assessment, risk monitoring, graded research, response and disposal, information reporting, assessment and accountability. According to the Measures, the relevant enterprises should carry out daily reputational risk management in seven ways, including risk inspections, emergency drills, coordinated mechanisms, social supervision, accumulation of reputational capital and internal auditing, in order to properly handle reputational risk management and business development needs.

(7) Three new quantitative criteria to strengthen regulation of commercial banks' online loans

To implement the Interim Measures for the Administration of Commercial Banks' Online Loans (the "Interim Measures"), regulate online lending, promote the healthy development of business and prevent financial risks, the General Office of the CBIRC issued the Notice on Further Regulating Commercial Banks' Online Lending Business on 19 February 2021 (the "Notice"). Based on the Interim Measures, the Notice defined and clarified three quantitative criteria:

10 *Notice of the China Banking Regulatory Commission on Issuing Guidance on Commercial Banks' Management of Reputational Risk*, August 2009

11 *Notice of the China Insurance Regulatory Commission on Issuing Guidance on Insurance Companies' Management of Reputational Risk*, February 2014

- **Capital contribution proportion:** For online loans jointly granted by the commercial bank and its partner, the capital contributed by the partner should not be less than 30% for a single loan;
- **Concentration:** The balance of online loans granted jointly by a commercial bank and one partner should be capped at 25% of the net amount of tier 1 capital;
- **Credit limit:** The balance of online loans granted by a commercial bank and all its partners should be capped at 50% of the total balance of all loans.

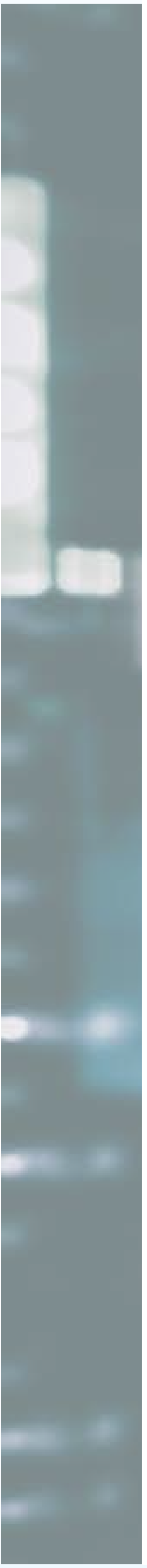
To ensure that commercial banks rectify their operations in an orderly manner and transition smoothly to the new criteria, the Notice provides for a transitional period, and regulators will supervise and guide the institutions in their rectification and adoption of the quantitative criteria for managing concentration risk and credit limits in accordance with the principle of "one policy for one bank to ensure a smooth transition." The rectifications must be completed by 17 July 2022. Regulators will not retrospectively apply the capital contribution proportion requirements, and restrictions on cross-regional operations will not be implemented. The Notice will apply to new loans granted after 1 January 2022, and banks will still be allowed to settle existing business. These measures will help commercial banks diversify their online lending business, prevent concentration risk arising from over-reliance on one partner, and leave adequate room for the online lending sector to grow robustly.

In May 2021, the first local detailed rules for commercial banks' online loans were released following the issuance of the Notice[12]. The local detailed rules, which were introduced by Jiangxi province, not only set stricter red lines, but also apply differentiated criteria for city commercial banks and rural commercial banks. The detailed rules include the following provisions:

- For city commercial banks and private commercial banks in Jiangxi province granting online loans with partners, the capital contributed by the partner should not be less than 30% for a single loan. The balance of online loans granted jointly by a commercial bank and one partner (related parties included) should be capped at 20% of the net amount of tier 1 capital. Meanwhile, the balance of online loans granted by a commercial bank and all its partners should be capped at 20% of the total balance of all the bank's loans.
- For rural small and medium-sized banks in Jiangxi province granting online loans with partners, the capital contributed by the partner should not be less than 40% for a single loan. The balance of online loans granted jointly by a commercial bank and one partner (related parties included) should be capped at 15% of the net amount of tier 1 capital. Meanwhile, the balance of online loans granted by a commercial bank and all its partners should be capped at 15% of the total balance of all the bank's loans.

We expect more provinces to join Jiangxi by implementing their own detailed rules. Against this backdrop, small and medium-sized banks that rely on online lending business need to actively seek ways to transform and improve their proprietary businesses.

12 *Circular on Forwarding the Notice on Further Regulating Commercial Banks' Online Lending Business*, the CBIRC's Jiangxi office, May 2021



(8) Additional regulatory requirements have been proposed for systemically important banks (SIBs) to improve the regulatory framework

On 2 April 2021, the PBOC and the CBIRC issued the *Additional Regulatory Requirements for Systemically Important Banks (for Trial Implementation) (Exposure Draft)* (the "Additional Regulatory Requirements") to publicly solicit opinions in the period leading up to 1 May 2021. The exposure draft specified additional regulatory requirements on SIBs, including additional regulatory indicators such as those related to additional capital, additional leverage ratios, liquidity, and large risk exposures. SIBs are required to meet additional capital requirements related to tier 1 capital in addition to minimum capital requirements, reserve capital requirements and countercyclical capital requirements. The Additional Regulatory Requirements also classify SIBs into five groups, and additional capital requirements of 0.25%, 0.5%, 0.75%, 1% and 1.5% apply to each group of banks from 1 to 5 respectively.

The Additional Regulatory Requirements were issued to implement the *Guiding Opinions on Improving the Regulation of Systemically Important Financial Institutions*. These rules support the *Measures for the Assessment of Systemically Important Banks*, and they constitute an important step towards improving the regulation of SIBs and optimizing the framework of macro prudential policies. Taking into account both international practices for regulating SIBs and China's characteristics and practical regulatory needs, SIBs will be required to meet additional regulatory requirements in respect of additional regulatory indicator systems, recovery and disposal schemes, and prudential regulatory measures. The transition between the five capital requirement levels in the Additional Regulatory Requirements will be relatively smooth, and the overall level is in line with international requirements, so the pressure on the actual capital levels of the banking industry in China will be relatively insignificant. The requirements will not cause much disruption to banking operations in the short run, and they should help banks lower their risk levels in the long run.

(9) The CBIRC strengthens management of the quality of commercial banks' liabilities

On 23 March 2021, the CBIRC issued the *Administrative Measures for the Management of Commercial Banks' Liability Quality* (the "Measures"). The Measures apply to cross-border and domestic debt businesses denominated in foreign and domestic currencies conducted by commercial banks incorporated in China. A commercial bank is required to establish a system for managing liability quality that is suited to the size of its liabilities and their complexity. It should assess strategies, systems, procedures, limits and contingency plans for liability quality management each year and make amendments when necessary. The Measures specify the key elements of liability quality management, which include liability source stability, structural diversification of liabilities, reasonable matching between liabilities and assets, proactive acquisition of liabilities, appropriate cost of liabilities and authenticity of liability projects. Commercial banks are required to conduct annual assessments in accordance with the Measures and submit an assessment report on liability quality management in the previous year to the CBIRC and its local offices before the end of March in the following year.

In recent years, some domestic banks engaged in the irregular practice of soliciting business via false advertising on online platforms, which could amplify fluctuations in the banking system and even in the financial market as a whole, and pose challenges to liquidity management. Within this context, the introduction of the Measures represents a milestone in the improvement of China's liability regulatory system for commercial banks. The Measures will help rectify systemic deficiencies, prevent financial risks, and improve the quality and efficiency of financial services. Commercial banks should pay close attention to internal and external factors that affect the stability of liability sources and strengthen the monitoring, analysis and management of the scale and structure of their liabilities in order to prevent risks arising from drastic and abnormal movements in liabilities.

02 Important topics

Pursuing AI-driven development and enabling digital banking (Strategies)

- Digital operations: The new strategic competitiveness for "future banks"
- Integration, innovation, and collaboration: The path to transformation for transaction banking
- Six recommendations for regional banks regarding retail business transformation
- Digital transformation: Enabling banks to develop new product management capabilities
- Foreign banks seizing opportunities in China: An overview of the past 15 years
- Discussion of opportunities offered by GBA policies for commercial banks
- Exploring development paths for banks' fintech subsidiaries

Developing smart control and compliance capabilities (Practices)

- Risk management in commercial banking reaches new heights under the new reality
- A clear third-party management strategy helps banks provide high-quality services
- Digital transformation of compliance management and internal audit in banks
- Making the digitalization of microfinance a success
- Data governance empowers "risk-based" AML management
- Focusing on climate change and responding to climate and environmental challenges
- Tax solutions for the banking industry in the post-pandemic era

2.1 Digital operations: The new strategic competitiveness for "future banks"

Why banks are focusing more on operations

Digital operations is an important topic for banks' management personnel. By discussing operational transformation with the management of many banks, we have discovered that this issue is high on their agendas for the following reasons:

- Operating costs: Issues related to operating costs became more prominent after the outbreak of the COVID-19 pandemic. Against this backdrop, most banks are accelerating cost restructuring as their income and profitability decline during the economic downturn. To reduce their cost-to-income ratio by 10 or more percentage points under current circumstances, they need to employ a strategic cost management solution that enables them to optimize their operating model and capitalize on the flexibility, resilience and transformation offered by digital approaches. Therefore, banks should prioritize cost reduction efforts in their operations. Common cost reduction approaches include enabling digital and intelligent central operations to fully leverage the operational resources at business outlets, as well as establishing comprehensive operational systems to optimize the allocation of bank-wide operational resources.

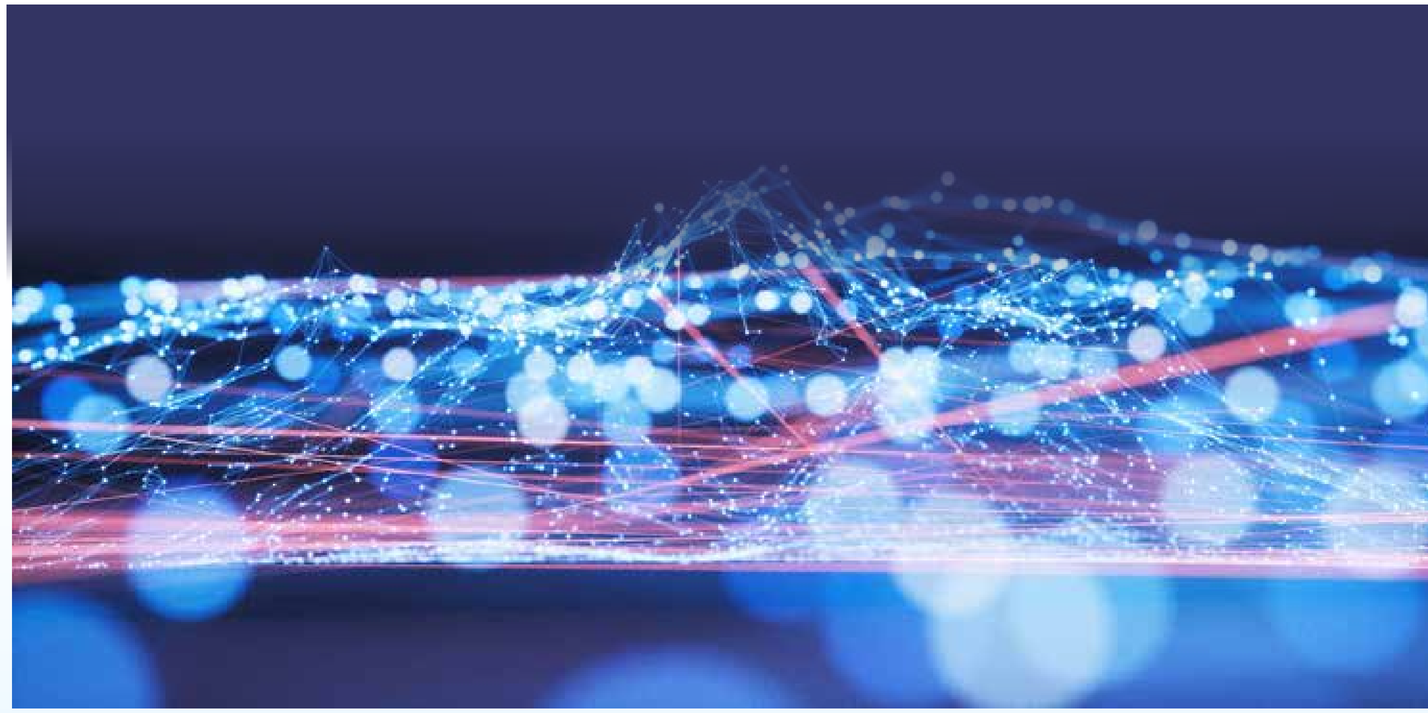
- Customer experience: Banks' operational functions have started delivering customer services as customers now require contactless services amid the pandemic. The contactless financial services model requires that operational functions offer services via channels other than business outlets (such as remote banking, online request acceptance + mailing, etc.). At the same time, operational functions are critical to improving omni-channel "seamless connectivity." Operational functions also need to address the service quality of business outlets due to the considerable number of complaints in this area.

- Operational risk: Recent regulatory penalties, whether for anti-money laundering violations or fictitious product sales, have presented operational functions with significant pressure and risks.

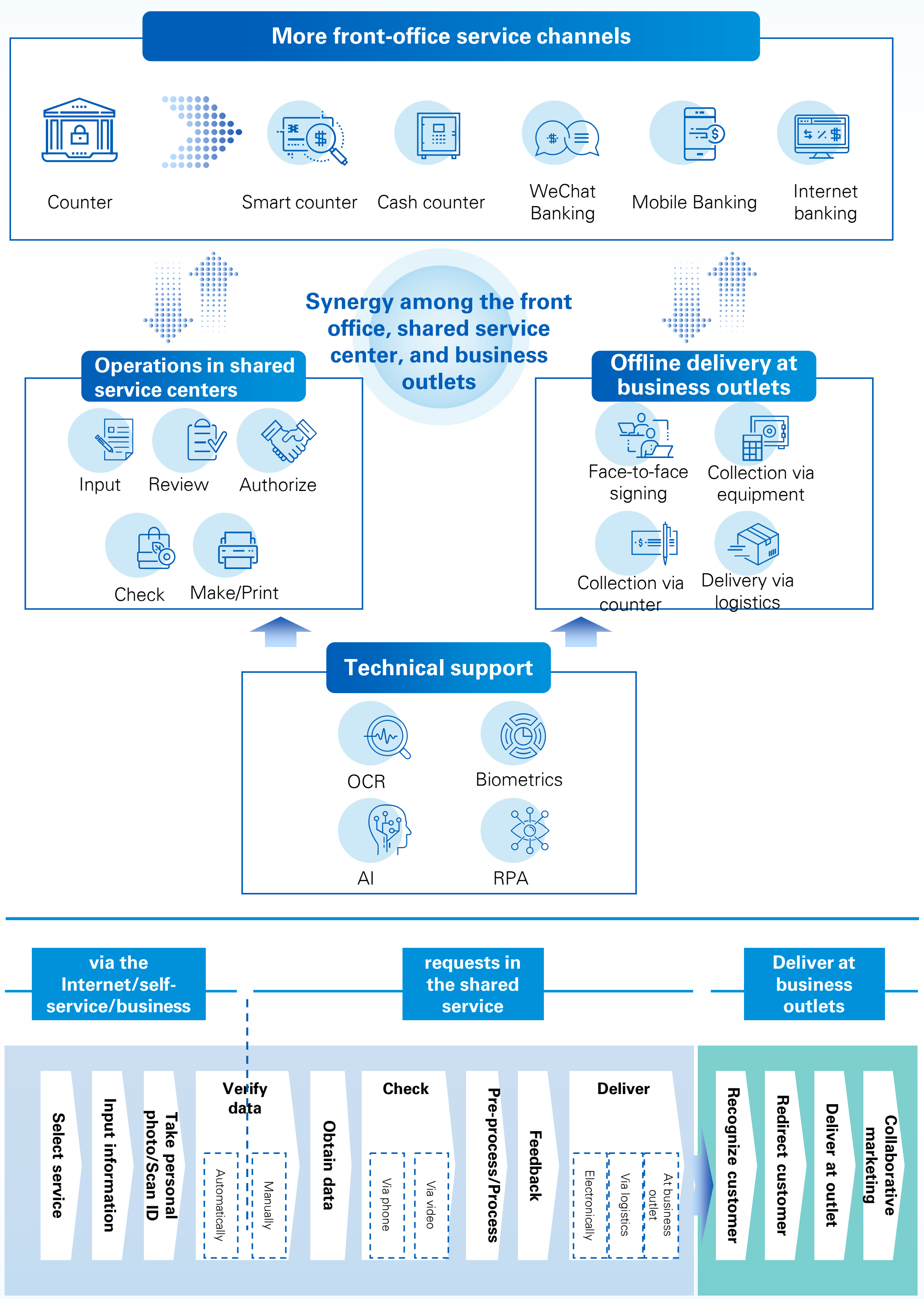
In addition, digital and ecosystem-oriented transformation have resulted in increasingly personalized demands from customers. Banks should consider how to build sustained and differentiated core competitive advantages to overcome any challenges presented by their peers and Internet finance enterprises. In the era of digital finance, banks are facing greater challenges in traditional arenas such as customer experience, product demand, and brand awareness. Their decision-making and business processes, which are still complicated, lengthy, and invisible to customers, have generally failed to meet customer demands for more efficient financial services. Misalignment between banking products and daily life scenarios has made it harder to address the different needs of customers. Meanwhile, products and services that look very much the same have eroded customers' brand dependence and loyalty.

Operations are key to establishing future-oriented banking competitiveness

The management of banks has realized that operations will be one of the major strengths they will use to compete with each other and implement banking strategies. All their products and services are accessible to customers only after going through their operations systems. Therefore, a well-established digital operations system will offer essential support to banks in building core competitive advantages. With such a system, banks can implement a cost-effective centralized operating model to lower overall costs, reduce the workload of clerks, facilitate business outlet marketing transformation, and migrate customers to online service channels. The system can also perform digital and intelligent operations to improve the customer experience, increase process efficiency, empower business, enhance channel collaboration, and support future-oriented strategic transformation toward opening banking and ecosystem banking. Currently, banks' management personnel are focusing on the critical measures and roadmap for planning and establishing an operations system that is fit for the digital era.



© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.



How can banks establish a future-oriented digital operations system

We believe that when designing a digital operations system, banks should at least consider the following aspects:

1. Top-level design

The top-level design of a banking operations system in the digital finance era should take into account how to reposition the operational functions; incorporate the advantages of the operating models of Internet giants such as Baidu, Alibaba, and Tencent; innovate organizational duties; remove divisions between departments; further integrate operations with business lines; enhance the digital innovation capabilities of the operational teams; and enable operational functions to improve product innovation, channel collaboration, customer services, and the customer experience.

2. Organizational structure and responsibilities

Based on their unique characteristics, banks need to redefine the scope of their operational structures and the boundaries and connections between their operational structures, the front office business lines and the back office departments such as IT. By making these changes, banks can enhance business collaboration, channel integration, and resource sharing by adding, adjusting, aggregating, combining, and optimizing operational functions in areas such as basic operations, quality operations, business operations, and operational risk control. Banks should also cultivate digital expertise within their operational functions and develop "digital operations heroes".

3. O2O channel collaboration

Banks' business steps—such as request acceptance, processing, and delivery—are changing. They are shifting away from the traditional operating model that involves separate services, such as counter service, online self-service and offline self-service, toward an omni-channel operating model that features "online service + offline service," "business outlets + self-service + central sharing," "online service + central sharing + mailing," "online service + remote banking," etc. Therefore, designing and optimizing future-oriented business processes so that they offer request acceptance, processing, and delivery through online and offline channels at the same time is a critical task for setting up a high-quality digital operations system.

In terms of service channel diversification, we have noticed that, driven by the impact of digital transformation and the pandemic, banks are accelerating their shift away from call centers toward digital technology-enabled remote banking operations in order to offer round-the-clock omni-channel customer services. While serving customers via remote banking, banks are continuously employing technologies in order to transform their "customer services" into "customer operations," and they consider these operations to be an important part of their core competitiveness. We believe that remote banking represents the next innovative digital banking model after direct banking and Internet banking. This model shows how customer services and operating models will evolve in the Chinese banking sector to enable customers to access services anytime, anywhere. For banks, the remote banking model also serves as an important measure in their effort to deliver "contactless financial services."

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

4. Excellent customer journey

In order to address intensifying market competition, changing customer behaviors, and evolving fintech, management personnel at banks have highlighted the continuous improvement of the customer journey as an important strategic objective. Unlike their previous process optimization efforts, banks have adopted a new E2E customer journey improvement methodology that leverages data analysis and targets the customer experience. Managers aim to implement lean operations throughout the customer journey and turn the customer experience into an essential growth driver and value creator. Within this context, operational functions have been assigned responsibility for orchestrating the customer experience among the channels. We believe that operational functions can take four major actions to improve customer services and the customer experience: define the customer journey, set up a customer experience indicator monitoring and assessment system, implement an agile customer experience work mechanism, and enforce closed-loop customer experience management.

5. Integration at business outlets

In order to ensure that outlets effectively assume their role in the digital operations system, we recommend that banks systematically design and plan integration for business outlets. Specifically, banks should use integrated marketing to improve productivity, integrate their workforces to drive personnel collaboration, deploy intelligent equipment to enable self-service and one-stop service, and establish a collective performance appraisal system to enhance joint product marketing.

6. Shared operating model that combines centralized operations and capability sharing

Diversification will be the approach that banks will use to derive value from digitalized and shared operations in the future. The areas to be diversified mainly include channels, centralized services, work models, service processes, and workforces. Building shared underlying capabilities is fundamental to the establishment of a shared operating model for the digital operations system. Banks need to comb through all business steps and convert them into front and back office components of standard service processes, develop digital service delivery models, create shared process pools for flexible and agile operations, and turn processes and underlying operational capabilities into standardized shared service capabilities, so as to effectively support diversified banking business scenarios.

7. Operational middle offices that support the banking ecosystem

An operational middle office is needed for banks that want to engage in ecosystem banking and open banking. An operational middle office's micro-services need to interface with external channels and ecosystem scenarios as well as the internal data middle office, product middle office, and other functions. In this way, the operational middle office can support scenario analysis, commonality analysis, domain-specific modelling, capability centers, definition and identification of micro-service capabilities, and the provision of services that support processes and business solutions.

8. Bank management based on operational data analysis

Banks need to set up a bank-wide dynamic perception map using an operational data mart from the perspectives of operational resource allocation, monitoring support, and analysis. This map should cover service management, business outlet management, equipment management, personnel management, transaction management, risk management, and operational inspections. In the future, the map should also help management develop business forecasts for outlets based on data analysis, outlet operational risk models, and dynamic operational resource allocation.

9. Comprehensive digital operational risk management

As banks adopt the digital operating model, they are facing new operational risks. Accordingly, they should coordinate operational functions across business lines; adjust their operational risk management models to incorporate operational control, monitoring and inspection, counselling, and account reconciliation; and develop an operational risk management blueprint for exercising comprehensive, timely, intelligent, and precise risk control over processes, channels, and transactions. All these efforts will help ensure coordinated and regulated operational risk management and prevention.

10. Digital technology application scenarios for operational functions

Banks should plan where to apply digital technologies within their operational functions. These scenarios may be related to customer experience, product development, risk control, compliance reviews, business operations, management, and technology.

With its industrial insights, service expertise, sound relationships with competent authorities and industry associations, and digitalization and fintech implementation capabilities, KPMG's Financial Operations Management Consulting team is well positioned to help banks tailor and implement strategic digital transformation solutions that cover strategies and models, organizational structures and job responsibilities, customer experience, customer journey, business outlet transformation, and the digitalization of operations.

Author:

Frank Li
Partner, Operations Management Consulting, Financial Services
KPMG China

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

2.2 Integration, innovation, and collaboration: The path to transformation for transaction banking

Transaction banking is characterized by light assets, fast turnaround, high customer loyalty, uncertain business cycles, and low risk. Chinese banks have designated transaction banking business as a major goal in their corporate banking transformation efforts over the past 5 to 10 years, and their operations in this area are still in the initial stages of development.

Four major driving forces of transformation

The original corporate banking business lines of commercial banks have encountered development bottlenecks due to the changing external business environment, increasing customer demands, intensifying peer competition, and emerging business portfolio adjustment requirements. All these factors are driving banks to explore opportunities for new business breakthroughs.

Driving force #1: The changing external business environment

- Accelerated interest rate liberalization is undermining the bargaining power of banks in respect of premium enterprise customers.
- Direct financing channels and third-party platforms are competing with banks in traditional fields such as credit, deposit, payment, and settlement business.
- Regulators are tightening capital adequacy ratio and liquidity requirements on banks, which is constraining the amount of venture capital they can provide.
- Technological advancement and digitalization are causing banks to transform their business models.

Driving force #2: Increasing customer demands

- Enterprises need corporate liquidity management, sedimentary fund management and related services.
- They also have a demand for cross-border payment and settlement, investment, and financing services.
- Enterprises are required to provide electronic transaction data in order to obtain credit.
- As various banking and non-banking financial institutions enter the marketplace, customers can choose among more financial service providers to meet their demands for comprehensive financial solutions.

Driving force #3: Intensifying peer competition

- Competition among banks for premium customers is becoming fiercer, resulting in lower profitability.
- Leading international banks have already established strong positions in transaction banking, and they maintain solid business ties with many large multinational companies.
- China's large state-owned banks and joint-stock banks have gradually built up their transaction banking products and business strength, putting pressure on small and medium-sized banks.

Driving force #4: Emerging business portfolio adjustment requirements

- Under the economic new normal, banks are experiencing slower growth and higher risks, and therefore they need to explore new business opportunities that feature both low capital requirements and low risk.
- As price competition continues, banks need higher return-on-investment in the areas of corporate banking business development, product development, and customer maintenance, and banks need to find business models that are more cost-effective.
- They also need to expand sources of intermediate business income.

Three major challenges in transaction banking transformation

Shifting from traditional corporate banking to transaction banking is a complex process that requires comprehensive effort on the part of commercial banks. The transformation will challenge the bank's legacy business model, organizational structure, product and risk management skills, and supporting information system, among other areas.

Challenge #1: Lack of professional industrial solutions and integrated marketing strategies

Most commercial banks have a complete catalog of transaction banking products, and some of them have started developing industrial solutions or industrial chain solutions. However, most of the industrial solutions are not comprehensive and professional enough, and they cannot be tailored to customer needs. These banks are still relying on sales of individual products or simple product combinations when exploring business opportunities, and they do not have the capabilities and mechanisms to perform comprehensive customer demand surveys or plan and design bespoke solutions.

Challenge #2: Outdated products, technologies, and business models

Many banks have not changed their processes, risk management approaches, and systems for managing transaction banking products. Their outdated business models not only impair their operational efficiency, but more importantly compromise their customer service quality and risk control results.

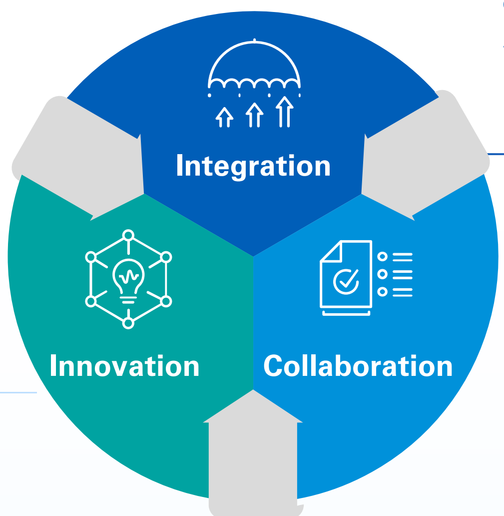
Challenge #3: Conventional department-based management

In order to quickly promote transaction banking, many Chinese banks have set up transaction banking departments and other related departments. For example, some banks have a transaction banking department under their corporate banking business line in parallel to the trade financing department and cash management department. This has resulted in various difficulties regarding how to coordinate the departments and business lines during business operations. In addition, most banks' middle and back offices are not providing sufficient support for the development of transaction banking, which requires special risk management. If they choose to assign responsibility for risk management only to transaction banking personnel, their risk control may fail.

Three major elements of success in transaction banking transformation

The key to successful transformation toward the transaction banking business model is providing professional customer-centric comprehensive solutions instead of individual products or a limited number of products.

Industrial and technological advancements have resulted in the broad application of innovative technologies in transaction banking, as well as the continuous evolution of processes, risk management, and IT.



Collaboration across product departments, business units, as well as the front, middle and back offices is required in order to implement an integrated solution

We believe that in order to successfully transform toward transaction banking, banks should put in place the following three elements:

Element #1: Customer-oriented integrated solutions

Transaction banking is the cornerstone and major orientation of digital transformation in corporate banking. Rather than an extension of another business or a simple combination of a few business lines, transaction banking represents a return to the business philosophy of delivering customer-centric financial services for the real economy; it constitutes a comprehensive change in the way banks provide financial products and services for enterprises. The key to success in transaction banking is to explore and leverage comprehensive customer demands, coordinate all relevant parties to design integrated product and service solutions, and effectively deliver the solutions.

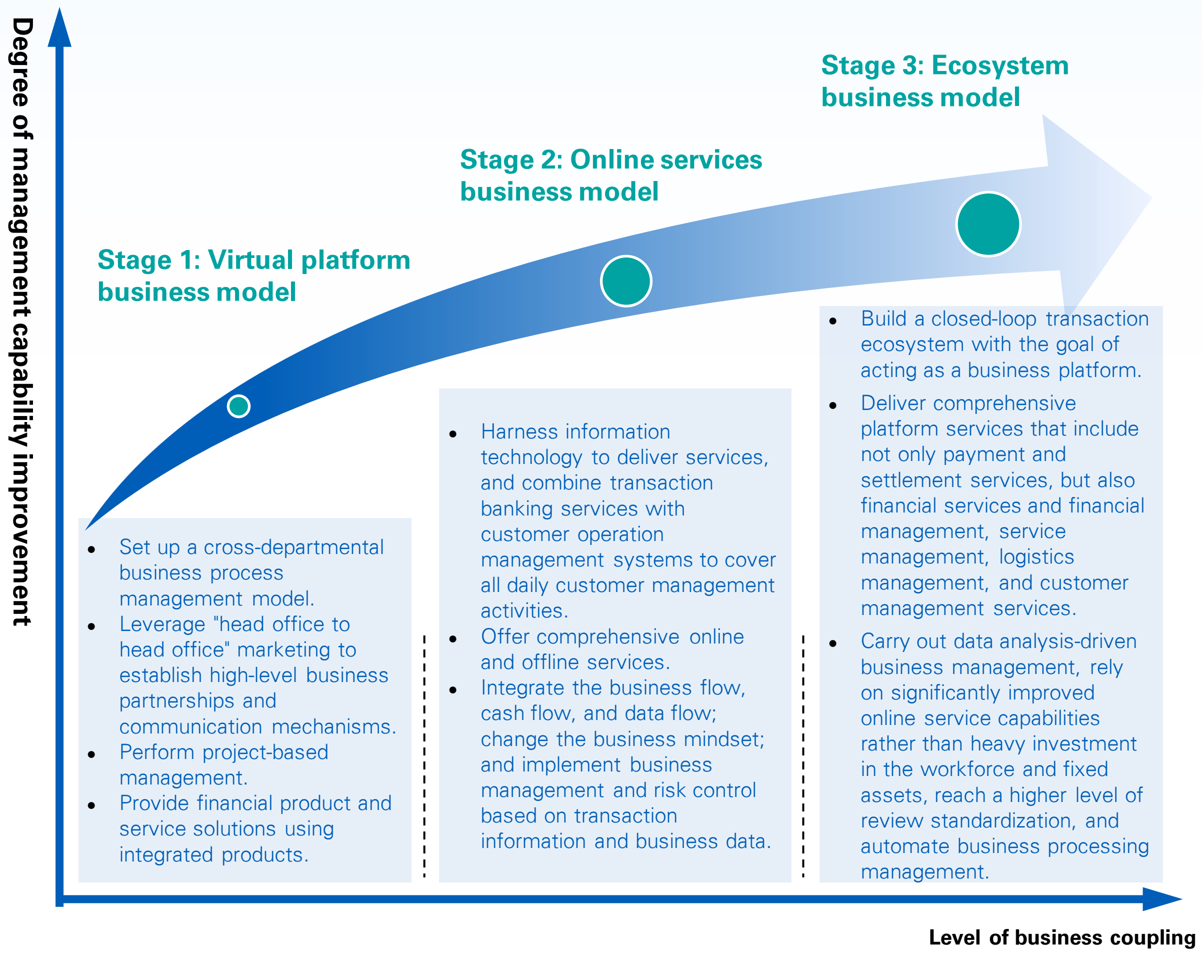
Element #2: Innovative products, technologies, and business models

The establishment and development of transaction banking require a robust product supply and strong underlying fintech capabilities, as well as innovative business processes, risk management approaches, and systems, among other aspects. For example, to effectively provide supply chain financing services, banks need to significantly change their risk management mindset; specifically, they need to focus on not what the primary and secondary sources of repayment are, but on how to do business in a closed-loop manner, repay loans with income, carry out vertical management, informatize transactions, and profile risks. In addition, going forward, transaction banking innovations are certain to be a trend as IoT, AI, blockchain, cloud computing, and big data (iABCD) continue to evolve.

Element #3: Collaborative organization and culture

In order to compromise and adapt to a consistent customer-centric service mindset, employees working in different professions within the bank will need to share the same business philosophy and goals. Before launching transaction banking, a bank should clearly separate duties between its head office and branches, among its business departments, and among its front, middle, and back offices, and define its management mechanism. It should also realign the organizational structure, redefine performance appraisal standards, and set up information systems to jointly drive strategic transformation toward transaction banking.

Three stages of transformation toward transaction banking



We have divided the transformation toward transaction banking into three stages, each of which represents a level at which transaction banking business can be conducted. The three stages are the virtual platform business model, online services business model, and ecosystem business model. These business models are not mutually exclusive. Instead, they may co-exist, evolve as internal and external conditions mature, and combine organically.

Stage 1: Virtual platform business model

This business model requires horizontal integration of the traditional departments of a bank to reduce departmental walls. Based on "head office to head office" marketing, project-specific management, and product sorting and integration, a bank can establish a virtual platform that aligns with its specific strategy in order to provide comprehensive services to enterprises, perform marketing that targets core enterprises and form in-depth project partnerships. Internal business and management integration is essential to the success of this business model. With a focus on arranging services for their core customer groups, small and medium-sized regional commercial banks can commence transaction banking by launching a project-specific platform that enables them to provide traditional financing services, supply chain and trade financing services, settlement and payment services, online corporate banking services, and cash management services.

Stage 2: Online services business model

This business model enables commercial banks to use innovative information technologies to continuously improve their transaction processing capabilities. They can establish strong links between their business systems and customers' core management systems by directly connecting, integrating, re-engineering, or upgrading ERP systems, financial management systems, output and sales management platforms, procurement management platforms, production management platforms, and HR management platforms. In this way, they can help customers seamlessly access financial services across different accounts. Using this business model, banks can obtain a significant amount of underlying operational management data from customers in respect of their supply and sales, production and operations, investment and financing needs, internal management, remuneration and benefit plans, and employee business profiles. This data not only enables banks to deliver value-added services such as those in the areas of financial management, liquidity management, and risk management, but also serves as a valuable basis for them to make decisions regarding innovative risk management.

Stage 3: Ecosystem business model

Emerging technologies such as Internet technologies are significantly reshaping financial services and creating opportunities that commercial banks should not miss. A great wealth of data can be built by identifying, observing, recording, and analyzing an increasing number of behaviors. Sorting, cleaning, cross-checking, mapping, summarizing, and analyzing such data from various sources will provide an accurate basis for marketing and risk control decisions, giving banks the opportunity to develop a strong competitive edge. Banks adopting this business model should harness advanced Internet and mobile Internet technologies to manage account and transaction information. They can establish an Internet-based ecosystem and use big data-driven analytics to develop into technologically-advanced banks. The Internet-based ecosystem connects enterprises, individuals, and banks to enable relatively isolated transactions. Banks in the ecosystem can easily obtain account information, directly and effectively address information balance and risk control issues during the provision of financial services, and integrate payment services, financial management, service management, logistics management, financial services, and customer management to develop efficient online service solutions. Technologically-advanced banks with big data-driven analytics are able to seek a wider range of business opportunities that covers a greater variety of social, production, and living activities. They leverage more powerful data collection capabilities and data analysis technologies to gather, sort, and analyze enterprise data from different sources during various transaction scenarios; and as a result, they are able to use big data technology to provide customers with more online account services and conduct more accurate customer risk control.

Author:

Daniel Zhi
Partner, Financial Strategy Consulting
KPMG China

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

2.3 Six recommendations for regional banks regarding retail business transformation

In recent years, regional banks have been subject to tightening external regulations and stronger demands from the real economy. For regional banks facing these challenges, retail business is the most important driver of liabilities as well as a major source of income.

The opportunities and challenges concerning their retail businesses include:

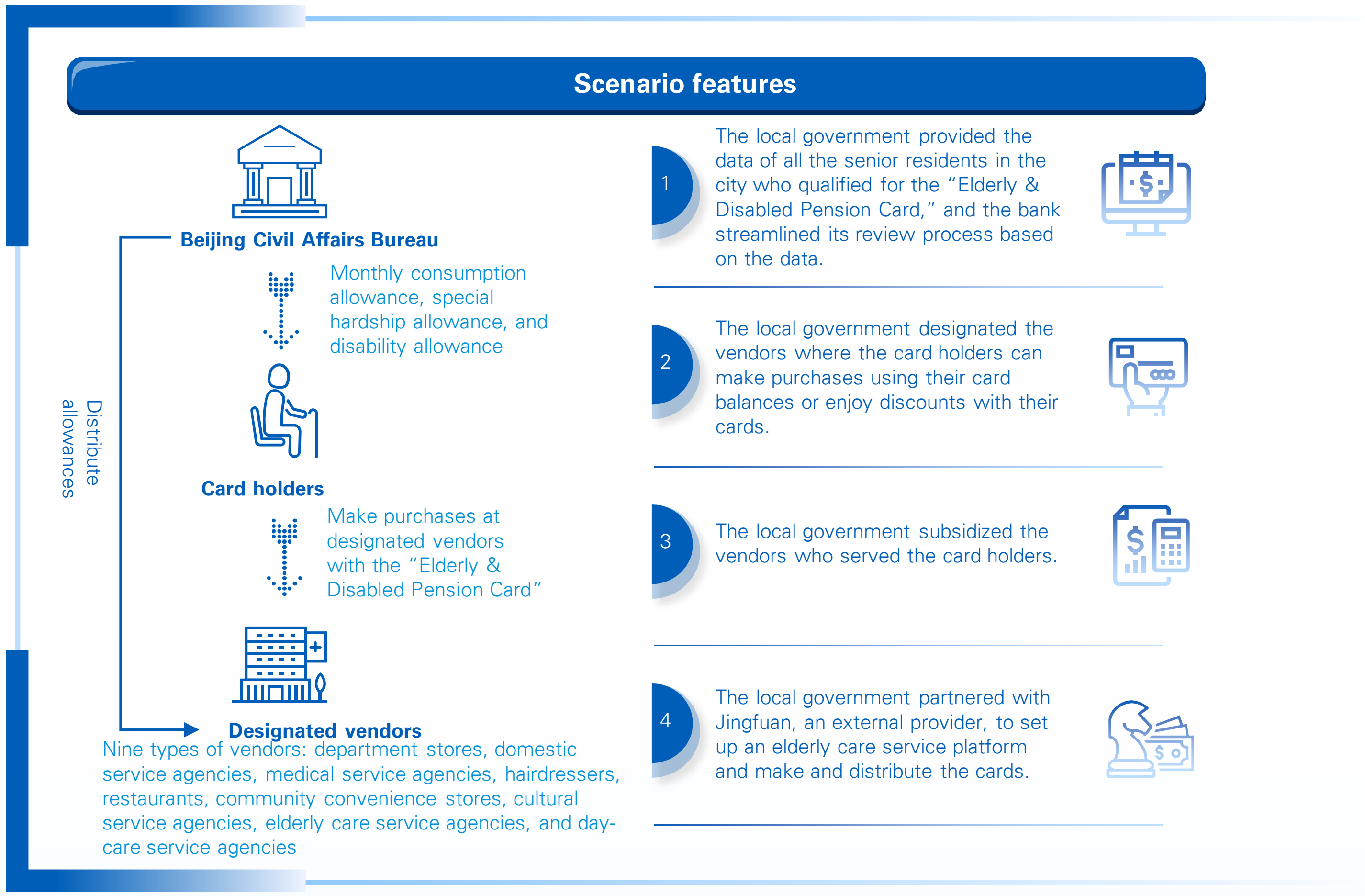
	Opportunity	Challenge
Financial services that ensure stability on "six fronts" and security in "six areas," and the aging population	V	
Rural revitalization and the new urbanization initiative	V	
Governmental business, environmental regulation and e-government service development	V	
New Internet finance regulations	V	V
Prohibition of deposit products with high interest rates		V
Intensifying competition in asset management business and increasing regulation		V
Maturing fintech application in retail banking	V	V

Against this backdrop, regional banks need to step up retail business transformation. In this regard, we have provided the following six recommendations, which are based on our recent experience in successfully advising multiple banks on such transformations:

Recommendation #1: Proactively develop new retail business scenarios and feature ecosystems

Undoubtedly, retail banking scenarios are an important way for banks to obtain a significant number of customers and increase their loyalty, and for this reason banks are steadily exploring this field. However, regional banks often have limited business scenario investment, and it is difficult for them to exchange significant amounts of traffic with third parties. To overcome these issues, in addition to establishing retail business scenarios by looking for ecosystem partners in the garment, food, accommodation, transportation, travel, and shopping sectors, they should also concentrate on integrating internal resources to form business scenarios and ecosystems based on their respective retail customers, government customers, and corporate customers.

[Case study] Based on its large elderly customer base and sound relationship with the local government, a rural commercial bank launched an "Elderly & Disabled Pension Card" jointly with the local civil affairs bureau, enabling the bureau to accurately distribute pension benefits. This initiative helped the bank to enhance its ties with the government while also growing its elderly customer base.



© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Recommendation #2: Further improve online and intelligent retail services

In the post-pandemic era, customers have become much more accepting of online banking services, and they expect a better digital banking experience. By harnessing the power of digitalization, retail banking can achieve breakthroughs and enable online and intelligent services for a much lower cost-to-income ratio.

Therefore, regional banks are increasing their investments in digitalization. For example, one urban commercial bank has offered a "perpetual loan," and a private bank has introduced a "310 model" for its asset businesses, and their peers have followed suit. In terms of future trends, many banks are deploying robo-advisors for asset management; and some are also putting in place digital applications that bolster employee capabilities, such as "AI bank governors" and "smart training partners".

Recommendation #3: Upgrade business portfolios to facilitate customer base operations and enhance comprehensive customer services

Over the past few years, most regional banks have adopted product-based retail business portfolios to address diversification requirements. Although these portfolios have helped quickly deliver professional products and respond to market demands, they can hardly meet the requirements for customer-centric financial services that integrate deposit, investment, lending, and credit businesses.

As regulators require banks to refocus on the real economy and challenge "fake product innovations," an increasing number of banks are considering how to carry out customer-centric restructuring, improve the construction of their customer bases, and enhance lean management, so as to strengthen their comprehensive operation capabilities.

[Case study] One bank was able to improve its comprehensive customer services by facilitating synergies within its personal banking business line and between its corporate and personal banking business lines.

	"Generation Z" consumers	Senior consumers	Individual/Small businesses	Rural/new urban residents	High-net-worth individuals/Corporate decision makers
Customer characteristics	▪ These are precocious consumers with demands for wealth accumulation planning	▪ They are relatively wealthy people who urgently need elderly care, and they serve as a link to family resources.	▪ Small and micro businesses mainly need financing and other value-added financial services	▪ They possess relatively advanced ideas about finance and large assets.	▪ High-net-worth individuals may demand private banking services, while corporate decision makers can serve as a link to their customer resources.
Core strategies	**Emphasize synergies within the personal banking business line, and drive liability growth and ensure stability by providing wealth management services, consumer credit, and other asset products.**		**Focus on comprehensive cash management services to facilitate individual businesses, consumption, and wealth management, and combine the bonus points system with the benefits system to further stabilize funding.**		**Enhance personal services to help promote and consolidate corporate banking business.**
Synergies within the personal banking business line	▪ Personal consumer credit ▪ Deposit accumulation and financial planning	▪ Personal wealth management ▪ Large deposits ▪ Comprehensive financial solutions that target families ▪ Pension insurance	▪ Personal business loans ▪ Personal wealth management ▪ Wealth management for the working capital of small and micro businesses	▪ Personal consumer credit ▪ Personal business loans (for agriculture, rural areas, and farmers) ▪ Personal wealth management	▪ Personal consumer credit ▪ Wealth management and private banking for high-net-worth individuals (such as wealth inheritance and family trust services)
Synergies between the personal and corporate banking business lines			▪ Transaction banking (cash management, supply chain financing, etc.)		▪ More corporate deposits ▪ Salary payment services ▪ Other financial services for corporate customers

Recommendation #4: Accelerate omni-channel transformation and recognize that online-merge-offline (OMO) is key

As online channels gain momentum, the traditional brick-and-mortar business outlets upon which regional banks have been relying are experiencing bottlenecks in obtaining customers, delivering services, and pursuing cross-sales. As a result, these banks are in urgent need of omni-channel transformation.

We believe that regional banks should reposition business outlets, mobile banking (via phone or WeChat), phone banking, and third-party channels, and increase their investments in mobile and phone banking. They also need to streamline and intelligentize their business outlets.

Channel collaboration is a barrier to omni-channel transformation, and **OMO** is the key to meeting this challenge and achieving transformation.

Recommendation #5: Adopt the core strategy of increasing the amount and proportion of premium retail deposits

As asset prices decrease and business competition with large banks intensifies, regional banks are facing a narrowing interest rate spread. Therefore, reducing the cost of liabilities is an important (and in some cases the only) means to maintain profitability. We believe that regional banks should attach great importance to premium retail deposits, and view increasing the proportion of demand deposits and reducing deposit interest rates as their core business strategy.

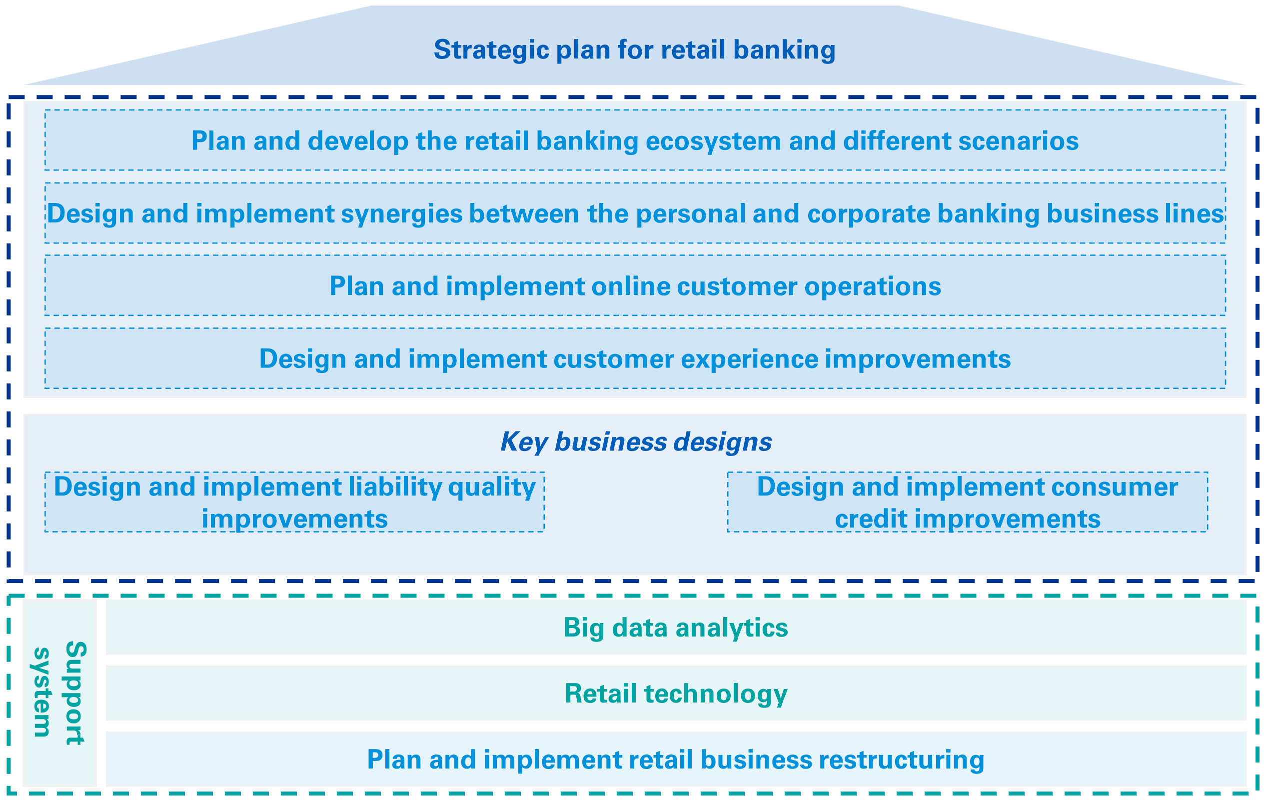
Banks can sort out the sources of demand deposits for various customer groups, and identify breakthrough points and key tasks based on their respective business foundations and accessible resources. County and rural markets could represent critical sources of premium retail deposits as well. Many urban commercial banks, such as Bank of Changsha, have already stepped up pursuit of this strategy.

Recommendation #6: Employ multiple approaches to drive frontline marketing

Outstanding frontline marketing is fundamental to retail banking development. Therefore, we suggest that banks employ multiple approaches, such as staff upskilling, digital enablement, and marketing model upgrading, to improve their marketing. For example, one leading bank is using a digital heatmap to increase the effectiveness of its segment marketing. The bank also performs analysis by consumption time, consumption location, competitor, consumer characteristics, and merchandiser characteristics using customer information collected through its app, public information from offline commercial districts, geographic location information of merchandisers, etc. Another leading bank partners with property management agencies, community stores and supermarkets to explore community marketing models.

.

Currently, retail banks need to transform in areas including strategic planning, retail banking ecosystem and scenario planning, the design of synergies between personal and corporate banking business lines, online customer operations planning, the design of customer experience improvements, the design of key businesses (such as the design for increasing high-quality liabilities and the design for consumer credit business improvements), and system construction support (for big data analysis, retail technology applications, and retail business-oriented organizational restructuring). For this reason, KPMG China's Financial Consulting teams keep track of the latest industry developments and offer retail banks comprehensive E2E solutions that cover all aspects of transformation, from strategy formation to implementation, in order to help banks transition toward future banking.



Authors:

Daniel Zhi
Partner, Financial Strategy Consulting
KPMG China

Carol Hong
Director, Financial Strategy Consulting
KPMG China

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

2.4 Digital transformation: Enabling banks to develop new product management capabilities

Background and observations

With the rise of Internet enterprises, the banking industry is facing enormous challenges, and all banks are implementing digital transformation strategies. The ability to integrate business and finance is critical to the digital transformation of finance. In this context, banking products serve as a bridge between banking business and financial management, and banks are recognizing that the construction of product management systems and the three reforms (digitization, automation and going online) have become inevitable development trends.

When looking at the development of the industry as whole, there are two types of pain points in the product management of banks. First, product standards are not unified, resulting in inconsistent product definitions and management approaches across various banks and even within the banks' business departments. The fact that the standards are not unified gives rise to the lack of a unified product view from the perspective of enterprises. Second, banks have not established unified product management platforms. As a result, banks lack channels for product releases, product interactions, product enquiries and business instructions, and underlying product data cannot be stored in electronic form.

Product management practices

Banks need to construct product management systems in order to address the general pain points in banking product management. When constructing these systems, banks should ensure that the system focuses on products from the perspectives of finance and business and uses financial data to reflect the results of business operations, so as to truly integrate finance and business. In addition, a consistent bank-wide product view and a supportive product management platform need to be established so that product management can be implemented throughout daily business operations and analytical activities and across the management, marketing, and operational functions. In order to digitally transform product management, banks should follow three steps: establish a system, build a platform, and set up a mechanism.

Establishing a system: First, banks should clearly define their marketed products, sort the products by channel, customer, and transaction, and align their product categories with their actual businesses. At present, there is fierce competition within the banking industry, and various business departments are constantly replacing old products with new ones. Accurate statistics on marketed products enable business departments to quickly and accurately grasp the current status of products so that rapid product innovation and internal management can be achieved at the same time.

Second, banks should measure and identify the scale and revenue of marketed products. It is difficult to establish a direct mapping relationship between marketed products and accounting items, as one product may correlate with more than one accounting item. Therefore, the bank's system should adopt the "basic product" concept refer to the smallest unit of profit derived from the bank's business operations and service activities. As the smallest product units of a bank, basic products support multi-dimensional statistical analysis. Identification rules for basic products should be formulated based on accounting items and business attributes. A marketed product may be composed of one or multiple basic products depending on the nature of the business.

Third, banks should clarify product management procedures. Banks should first understand the current situation and generate a list of marketed products, then describe the business characteristics of each marketed product using standardized business attributes and business processing conditions. They should then establish mapping relationships between the marketed products and basic products, before defining basic product identification rules with the help of business departments. This step requires frequent communication across the bank's departments to determine the final granularity of the product and the statistics collection approach. By taking these steps, banks can develop a consistent marketed products list, and then promote the list top down across the bank.

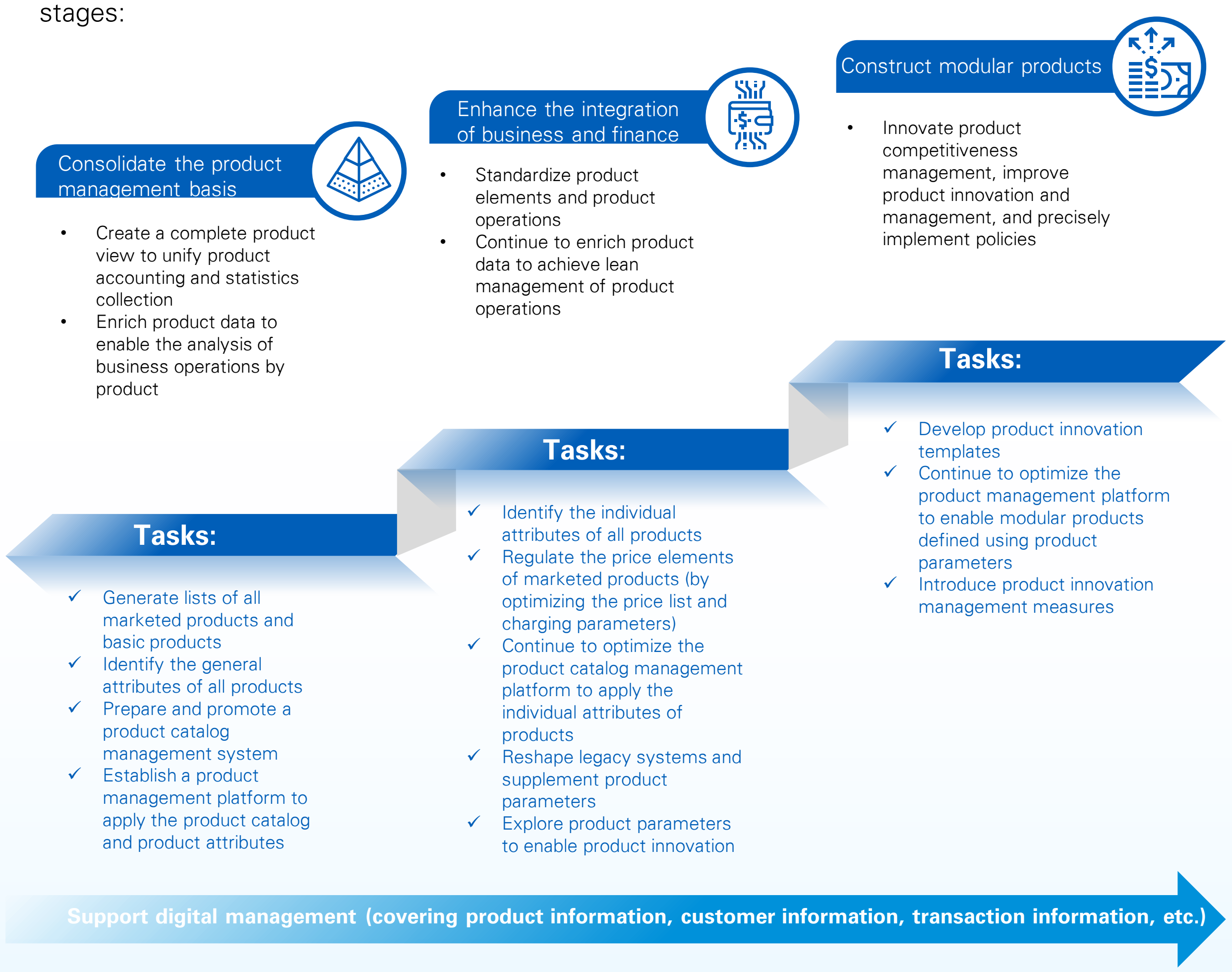
Building a platform: The product management platform serves as the basic product information platform for the entire bank. First, the platform should be used to generate a bank-wide unified product catalog, centrally manage the business attributes of marketed products, and systematically manage the addition, modification and deletion of marketed products online. Second, banks should use the platform to establish and release product identification rules. Based on these rules, business data can be mapped to accounting items to interconnect financial systems and business systems, so as to make the bank's data visible, usable, and manageable.

In addition, the product management platform can be used to optimize the quality of product data and add indicators in other dimensions so that data can be viewed by account and profitability analysis can be conducted by product, customer, business line, or department.

Setting up a mechanism: "Product Management Measures" should be applied bank-wide to regulate the management process and the division of responsibilities. From the perspective of the management process, banks should standardize product launch and removal processes and centrally manage the product catalog without affecting the business department's product innovation process. With regard to the division of responsibilities, business departments need to ensure the completeness, accuracy and validity of the information that has been provided for marketed products when launching such products, and submit applications for approval. The product management owner should be responsible for supervising and inspecting the product launch process in the last checkpoint of the approval process, and the owner should also formulate identification rules for the products after approval is granted. Afterwards, product identification results should be generated based on the rules. The product management owner is also responsible for arranging daily maintenance of the product management platform; coordinating, tracking, driving, and supervising the resolution of product risks and issues by business departments and related product managers; and formulating rules to reward and punish product managers based on their product-related performance. By performing these duties, the product management owner can effectively promote product lifecycle management, including in respect of product innovation, operations, and business results.

Recommendations

With reference to leading practices in the industry, and taking into account the need to digitally transform traditional banking in the big data era, we recommend that banks establish and implement their product management systems in three stages:



Consolidating the foundation of product management: In this stage, a bank should generate lists of all its marketed products and basic products, and identify the general attributes of the products. In addition, it can promote and implement the product management system across its departments by formulating a product catalog management policy and establishing a product management platform. It can also create a comprehensive product view in order to unify product accounting and statistical collection, and enrich product data to enable the analysis of business operations by product.

Enhancing business and finance integration: In this stage, a bank needs to comb through the individual attributes of all products based on the bank-wide product view, standardize the price elements of marketed products (by optimizing the price list and charging parameters), and maintain the individual attributes of products using the product management platform. In addition, the bank can reshape certain legacy systems, fine-tune the original product parameters, and then explore product development and innovation based on the updated product parameters.

Constructing modular products: In this stage, product innovation templates should be developed to manage the competitiveness of innovative products. Meanwhile, banks should make sure that their product innovation models no longer use the original product risk control and offline product marketing models, among other models, in order to improve product innovation and management and precisely implement policies.

Authors:

Lodge Liu
Head of Financial Management
Consulting, Financial Services
KPMG China

Alex Pan
Director, Financial Management
Consulting, Financial Services
KPMG China

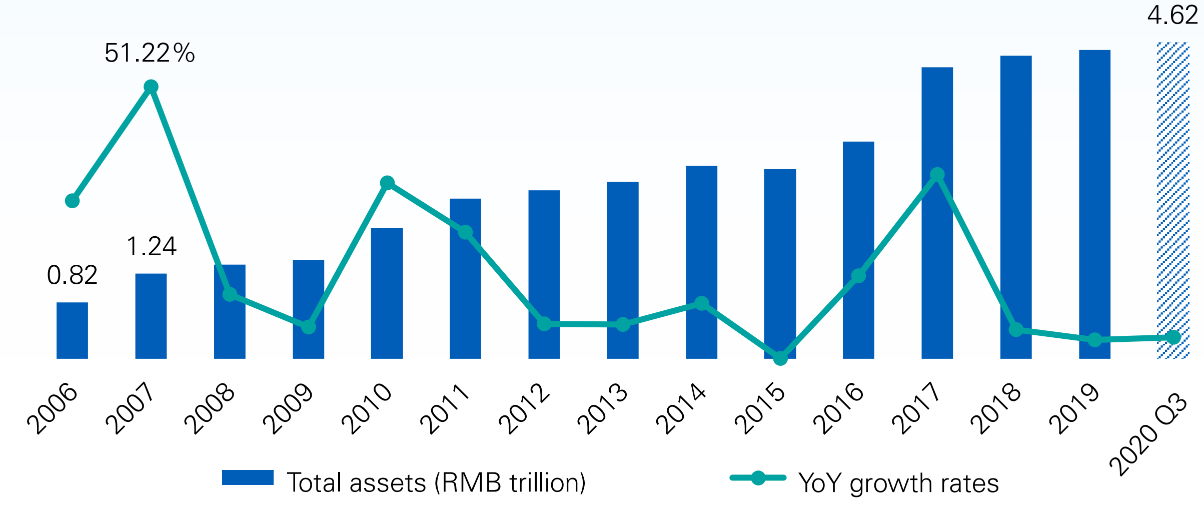
© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

2.5 Foreign banks seizing opportunities in China: An overview of the past 15 years

1. 15 years of ups and downs—challenges and opportunities co-exist

In 2006, the former China Banking and Regulatory Commission (CBRC) revised *the Regulations of the People's Republic of China on the Administration of Foreign-funded Banks* (the "Regulations") that allow foreign banks to convert themselves into corporations. Under the revised regulations, foreign banks can apply to convert their branches into locally incorporated banks registered in China in order to enjoy "national treatment," the benefits of which include the removal of non-prudential market access constraints and the ability to conduct RMB business with Chinese nationals. These locally incorporated banks are subject to the same regulations as other Chinese banks. After the Regulations were promulgated, foreign banks started to increase their investments in China and commenced the local incorporation process. As at the end of 2007, after only 1 year, 29 foreign corporate banks and 125 branches[13] had been established in China. In 2007, foreign banks' total assets surged 51.22% YoY to RMB 1.24 trillion (Chart 1), exceeding the RMB 1 trillion mark for the first time. At that time, their total assets accounted for 2.36% of the total assets of all banking financial institutions in China[14] (Chart 2).

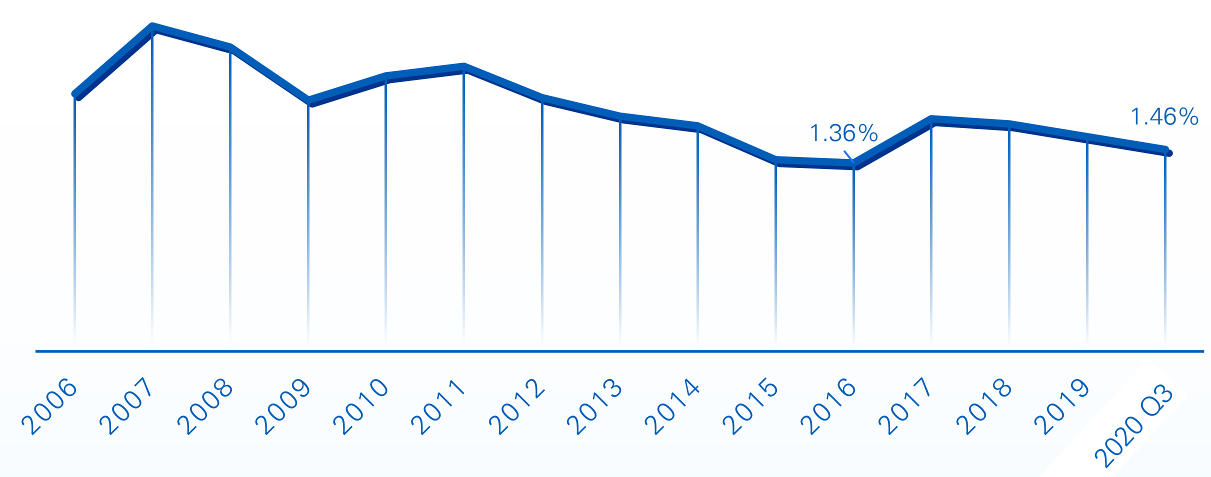
Chart 1: Total assets of foreign banks and YoY growth rates (2006-3Q2020)



Source: Wind Information, PBOC and KPMG analysis

But after that surge, the development momentum of foreign banks came to an abrupt halt. Since 2008, foreign banks' assets as a proportion of the total assets of banking financial institutions has trended downward, with their proportion declining to 1.36% in 2016. Despite a slight rebound in recent years, the proportion was merely 1.46% at the end of the third quarter of 2020 (Chart 2). Now, looking back at the development of foreign banks after 15 years of local incorporation, observers may wonder why these banks have not made more progress. What are the prospects for foreign banks in China? Where are the opportunities, and where is the untapped market potential? These questions are worth reflecting on and discussing.

Chart 2: Proportion of foreign banks' assets to the total assets of banking financial institutions (2006-3Q2020)



Source: Wind Information, PBOC, CBIRC website and KPMG analysis

13 *Central Bank Report: Total Assets of Foreign Banks in China Increased by 47% in 2007*, Sohu News, 19 March 2008, http://news.sohu.com/20080319/n255800000.shtml

14 Banking financial institutions include policy banks and China Development Bank, large commercial banks, joint-stock commercial banks, city commercial banks, rural commercial banks, rural cooperative banks, urban credit cooperatives, rural credit cooperatives, new rural financial institutions, Postal Savings Bank, foreign banks and non-bank financial institutions.

Although foreign banks' assets have grown steadily, their growth rate has been lower than the overall growth rate of the total assets of China's banking financial institutions. From 2006 to the third quarter of 2020, the total assets of foreign banks increased from approximately RMB 0.8 trillion to nearly RMB 4.6 trillion (Chart 1), which represents an estimated average annual growth rate of 13%. In other words, foreign banks' assets posted a double-digit annual growth rate, which is not low at all. However, this rate is slightly lower than the growth experienced by Chinese banks, whose assets increased by 15% annually on average between 2006 and 2020. In conclusion, foreign banks' share of total assets shrank due to the rapid expansion of Chinese banks in the past 15 years. This trend shows that foreign banks have lagged behind their domestic peers.

After 2008, the expansion of foreign banks' parents was curtailed. Why did the proportion of foreign banks' assets start trending in the opposite direction in 2008? This was the year in which the U.S. subprime mortgage crisis broke out and snowballed into a global financial crisis. During this period, many European and American banks found themselves in a quagmire. News reports about impending government takeovers and capital injections were being frequently released. In the 10 years that followed, and even beyond that timeframe, many large companies were subject to heavy regulatory penalties due to problems exposed by the financial crisis, restricting their overseas expansion. Foreign banks in China were inevitably affected amid decreased support from their overseas parents. During the recovery period, these banks cut back on their investments in China and were very cautious in their development strategies. After over a decade, the financial strength and profitability of their parent banks has gradually recovered. Now, foreign banks in China can regain their financial footing and expand more robustly.

Oversight has gradually been relaxed, and a number of regulations were revised in 2019. Although the Regulations (2014) have been revised over the past 15 years, including shortening the waiting period for RMB business applications and abolishing the prerequisites for the establishment of representative offices, the impact of these changes has been insignificant. In 2018 and 2019, China further opened up its banking sector. During this time, the CBIRC introduced 34 measures, and the relevant regulations were amended. At the end of 2019, the revised Regulations and the supporting Implementation Rules were released. Some of the measures included in the Regulations were considered breakthroughs, including the relaxation of restrictions around the establishment of locally incorporated banks and branches by foreign banks, the loosening of the prerequisites for the establishment of business institutions in China by foreign banks, and the removal of the need for foreign banks to obtain approval to conduct RMB business. This loosening of the regulatory environment represents a new round of opening up and provides foreign banks with a friendlier business environment and a range of new opportunities.

2. Seeking growth—Finding the right business models and development strategies for the China market

As newcomers, foreign banks are bound to meet challenges in adjusting to the practices of China's financial market, and the adjustment will take time and effort. In terms of regulatory communication, due to differences in cultural backgrounds, foreign banks—especially European and American banks—sometimes find it difficult to understand the regulatory intent behind certain policies. As a result, they fail to communicate local regulatory requirements to their parents, which may lead to confusion or cause the bank to cross a "red line" or miss out on significant opportunities during relevant window periods. With respect to business development, foreign banks tend to focus on asset-light business.

However, there are usually asset or capital requirements for pilot business and asset or capital thresholds for other businesses in China, and these thresholds may exclude leading foreign banks from being able to participate in certain types of business. In addition, the parent banks' cautious attitude towards the Chinese market makes it difficult for them to effectively expand their business. Foreign banks need interdisciplinary professionals who can adapt to the culture of foreign banks and who also have a deep understanding of the Chinese market and its business practices. However, these individuals are hard to recruit, and sometimes foreign banks are forced to operate without them. These are the challenges that impede the development of foreign banks. Of course, these issues inevitably arise when different cultures come into close contact. However, foreign companies must face up to these challenges in order to overcome them.

With respect to business strategy, in the past 15 years, many foreign banks have wavered in their development due to their insufficient understanding of the Chinese market. For example, soon after foreign banks became eligible to incorporate locally, they set their sights on retail banking due to the large potential customer base. However, due to issues related to business philosophies and their limited number of outlets, their customer bases and profitability remained low. Since 2013, several foreign banks, such as Deutsche Bank and ANZ Bank, as well as Citibank, as recently announced, have gradually closed their retail outlets in China and exited the personal banking business. In contrast, in the wholesale sector, foreign banks boast clear advantages in respect of cross-border experience and professional capabilities compared to their domestic peers. At present, foreign banks are still exploring ways to leverage their advantages as they compete with Chinese banks.

In cross-border business, foreign banks naturally cooperate closely with their parent banks, whether they are providing products and services related to exchange rate and interest rate risk management to Chinese and foreign companies engaged in cross-border business, or supporting ever-expanding cross-border capital inflows and outflows. In this field, Chinese banks cannot compete with foreign banks' huge overseas networks. For example, foreign corporate banks in Shanghai served 2,261 Chinese enterprises and conducted 330,000 transactions through domestic and overseas intragroup cooperation in the first quarter of 2021, and the total amount of their cross-border credit lines reached RMB 621.7 billion. In addition, some of these transactions are not booked locally, so the scale of foreign banks' business in this sector may be significantly underestimated. Moreover, to encourage and support domestic and overseas cooperation, China has introduced "super-preferential policies" for foreign banks. For the first time, the Implementation Rules for the Regulations (2019) stipulate that foreign banks and their parent groups are allowed to conduct overseas operations, and their business scope has even been extended to cover securities business. Specifically, the rules state that they will be allowed to "offer integrated financial services in respect of overseas bond issuance, listings, mergers and acquisitions, financing, etc. to customers." Furthermore, in May 2021, the CBIRC lifted the caps on the proportions of foreign banks' large exposures. In combination, these changes all point toward a trend of relaxed regulatory control over foreign banks' cross-border business.

15 Shanghai's domestic and foreign-funded corporate banks serve the global financial needs of Chinese-funded enterprises with high quality, wide range and longitudinal deepening, Shanghai Municipal People's Government, 25 May 2021, https://www.shanghai.gov.cn/nw31406/20210528/a1b94d7dc8e14587b38ea941951039eb.html

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Regarding advantages in professional services, the parent banks of some foreign banks also enjoy traditional advantages in certain sectors. Foreign banks can replicate these advantages in China, and some have achieved positive results. For example, in 2014, Citibank launched its transaction banking business in China, which includes supply chain finance, settlement, and cross-border fund pool management, as well as its cross-border fund pool for cross-border business. Since this business was launched in 2014, Chinese banks have been trying to copy Citibank's model, but so far they have found it difficult to replicate and surpass. In addition, foreign banks also specialize in derivatives. Due to their risk tolerance and ability to price foreign exchange derivatives, American and European banks have been major participants in the foreign exchange derivatives market and have served as counterparties to Chinese banks in this regard. The scale of some foreign banks' derivatives business is dozens of times the total assets they hold on their balance sheets, and this imbalance is another sign of how foreign banks' development in China has been underestimated or neglected. Of course, in order to replicate foreign banks' advantages in this sector, Chinese institutions need to ensure they have a full understanding of the local market and regulations, and the products must be localized.

In retail business, the position of Chinese banks is unshakable as large state-owned banks have a huge number of physical outlets, and joint-stock banks and local city commercial banks have strong customer loyalty due to their local attributes. The strong position of local banks does pose obstacles to foreign banks when they try to expand their retail business. Nevertheless, opportunities do exist in certain sub-sectors. With the rise of a high-net-worth customer base in China, foreign banks have set their sights on private banking and wealth management in recent years. Foreign banks enjoy advantages in product design, wealth management, and brand effect; and in respect of high-net-worth customers, they have strong cross-border service capabilities. Furthermore, as the European and American stock markets have performed well in recent years, the market value of some foreign banks' QDII products almost doubled in 2020. Prosperous stock markets, coupled with revamped investment philosophies related to global asset allocation, have helped foreign banks to gain ground in the retail sector.

3. Foreign banks' responses in the digital era

Digital finance and mobile finance have developed rapidly in China. At present, foreign banks lag behind their domestic rivals in the development of innovative online financial products and services. This deficit is partly due to their core systems being constrained by the technological development of their parents, and partly due to the fact that digital banking and mobile Internet technology are not as advanced in their parents' home countries, so the parents' decisionmakers fail to effectively understand and respond to trends in fintech innovation in China. Foreign banks face a significant challenge in their effort to catch up technologically with their domestic peers. Nonetheless, technology is a crucial determining factor for whether foreign banks can achieve mainstream success in China's banking sector.

Using digital technology to improve business processes. In China, the banking sector applies state-of-the-art technology in business processes to improve efficiency, ease of use and accuracy. Through digital banking, banks aim to develop a complete set of refined tools that continuously improve business processes, thereby achieving the most effective results with the fewest inputs. In this respect, foreign banks' systems are relatively backward, and a substantial portion of their authorization processes and bookkeeping operations are still performed manually, which may give rise to operational risks. For example, in 2020, one foreign bank's branch was fined over RMB 10 million after one of its employees illegally withdrew customers' funds.

Digitalization is improving banks' data governance. Compared with other companies, banks rely heavily on customer data analysis, and the ability to effectively conduct such analysis makes a bank more competitive. Regulations on bank data security are becoming more strict year after year, and foreign banks in particular are subject to stringent restrictions on data storage and cross-border data transfers. Against this backdrop, using digitalization to improve data governance can improve the efficiency of data collection and aggregation, save manpower, and increase a bank's level of data automation. Digitalization can also strengthen big data analysis so that banks can more accurately locate target customers and identify risks.

Mobile Internet is reconstructing banks' customer service models. The rapid evolution of mobile Internet has raised Chinese customers' expectations regarding convenience. Particularly in the wake of COVID-19, more people are spending time at home to stay safe and isolate themselves from others. Therefore, commercial banks must be able to offer convenient, contactless banking services. In order to catch up, foreign banks need to develop user-friendly platforms that provide mobile banking, payment and investment services, or cooperate with emerging Internet technology companies to improve their digitalization capabilities. In this way, foreign banks can seize opportunities and expand their business.

As witnesses to the ups and downs of foreign banks in China and their market exploration over the past 15 years, we hope that foreign banks can seize the opportunities offered by the latest round of reforms, the expansion of cross-border capital flows and the increasing demand for financial services; press home their advantages; and develop management approaches that suit their own culture and meet the needs of the Chinese market. We believe that a healthy and inclusive financial market requires the full participation of foreign banks. By communicating with each other, domestic and overseas financial institutions can work together to build a sound and effective financial market in China.

Authors:

James Zheng,
Head of Information Technology Consulting, Financial Services
KPMG China

Forrest Wu,
Partner, Financial Services
KPMG China

2.6 Discussion of opportunities offered by GBA policies for commercial banks

In February 2019, the Central Committee of the Communist Party of China and the State Council issued *the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area*. On 14 May 2020, the People's Bank of China (PBOC), the China Banking and Insurance Regulatory Commission (CBIRC), the China Securities Regulatory Commission (CSRC) and the State Administration of Foreign Exchange (SAFE) jointly issued *the Opinions Concerning Financial Support for the Establishment of the Guangdong-Hong Kong-Macao Greater Bay Area* (the "Opinions"). The Opinions put forward a total of 30 detailed measures across five areas:

- Promoting cross-border trade and investment and providing seamless financial services in the Greater Bay Area (GBA);
- Continued opening up of the financial services sector;
- Promoting the integration of financial markets and financial infrastructure;
- Increasing innovation in the financial services sector in the GBA; and
- Effectively managing cross-border financial risks.

The Opinions will directly promote the development of the financial services sector in the GBA, thereby driving the country's economic growth and opening up. These policies will provide a significant boost to the post-pandemic economy. As the cornerstone of business development in the GBA and a critical pillar for regional integration and development, commercial banks will provide long-term stable financial support for business ties between Guangdong, Hong Kong SAR, and Macao SAR.

Although the GBA strategy and supportive financial policies are certain to bring significant benefits for the region's commercial banks, their implementation will not be without challenges. The GBA is unique in that it involves one country, two political systems, three customs territories, three currencies, and different legal systems. Within this context, integrating regional resources to break down barriers regarding circulation, regulation and people will present challenges to the development of the GBA.

This article will focus on the development priorities of the GBA, and discuss the specific needs and investment opportunities of the regional market under the favorable financial policies that have been released, such as those specified in the Opinions. We will consider these topics from three aspects: the Wealth Management Connect, increased cooperation and opening up, and fintech development. We hope that this discussion will help commercial banks seize opportunities in the region.

Wealth Management Connect

On 29 June 2020, the PBOC, the Hong Kong Monetary Authority (HKMA) and the Monetary Authority of Macao jointly released the framework for the pilot Wealth Management Connect scheme in the GBA. Nearly a year later, the long-awaited implementation rules were finally announced. In May 2021, the PBOC, the CBIRC and the CSRC jointly issued the *Implementation Rules for Pilot Wealth Management Connect Business in the Guangdong-Hong Kong-Macao Greater Bay Area (Exposure Draft)*. The revised rules focus on four areas: the scope of qualified banks, account-opening arrangements for customers, eligible bank products, and communication with customers.

Banks, fintech companies and other market participants responded quickly to the Exposure Draft and actively prepared strategic market plans. Commercial banks such as Industrial and Commercial Bank of China (ICBC), Agricultural Bank of China's (ABC) Shanghai branch, and Hang Seng Bank have already started preparing for the Wealth Management Connect in the areas of system construction, product design and risk control. The goal of these preparations is to enable customers to purchase and redeem wealth management products via counters and e-channels once the Wealth Management Connect is launched. In terms of first movers, after launching its first GBA-themed global fund product, Standard Chartered Bank became the first bank to pilot this business and offer offshore wealth management products to its customers.

We believe that the Wealth Management Connect will (1) promote investment diversification and facilitate investment by GBA residents; (2) increase the liquidity of the financial markets in mainland China, Hong Kong SAR and Macao SAR; (3) deepen the financial opening up of the GBA; and (4) promote RMB internationalization and strengthen Hong Kong SAR's position as a global offshore RMB hub and international asset management hub. In the future, more and more commercial banks in the region will launch related financial products, which will broaden the scope for cross-border investment between Hong Kong and mainland residents and institutions, and provide more channels for Hong Kong and mainland residents to invest in each other's financial products. Furthermore, banks in the GBA will increase their investments in the private banking and wealth management sectors in Hong Kong SAR and Macao SAR; and Hong Kong, Macao and international banks will seek to enter the GBA market.

Increased cooperation and opening up

In recent years, an increasing number of commercial banks have designated the GBA as a core region for their strategic development. Within this context, many banks are integrating the service advantages of Guangdong, Hong Kong SAR and Macao SAR, and they are seizing the economic development opportunities arising from the accelerated opening up of the GBA to satisfy customers' banking service needs.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

For example, in July 2020, Standard Chartered Bank announced the establishment of the Standard Chartered Greater Bay Area Centre in Tianhe, Guangzhou, with a total investment of USD 40 million. The center has been established to support the group's personal and corporate banking operations in the GBA, promote the development and application of innovative financial technologies, and strengthen the group's cross-border banking business in the region. In February 2021, HSBC established its GBA Business Division to coordinate internal resources across business lines, integrate market advantages across regions, and capture the growth potential stemming from the GBA's innovation policies. In March 2021, JPMorgan Chase agreed to acquire a 10% stake in China Merchants Bank's wealth management subsidiary at a consideration of USD 410 million, marking the first time a foreign strategic investor had injected capital into a Chinese bank's wealth management arm. In April 2021, DBS Bank received approval from the Monetary Authority of Singapore and the CBIRC's Shenzhen office to acquire a 13% stake in Shenzhen Rural Commercial Bank at a consideration of RMB 5,286 million, accelerating the strategic development of DBS Bank in the GBA.

We believe that increased cooperation and opening up will accelerate the financial innovation process in the GBA. Financial institutions in the region will be able to access the valuable experience of their foreign peers, while foreign investors can benefit from the huge customer base in the region and even the country as a whole. The promulgation of a series of supportive financial policies has accelerated the region's economic integration. Within this context, banks in Guangdong, Hong Kong SAR, and Macao SAR should strategically cooperate with other financial institutions to combine the advantages associated with Guangdong's extensive customer resources and commercial banking outlets with those associated with Hong Kong SAR's and Macao SAR's advanced financial products. In this way, the different parties can maximize their advantages to achieve mutual benefits and win-win results.

Advancements in financial technology

The conditions in the GBA are ripe for developing fintech, and the Opinions will provide a boost to such efforts. As an engine for fintech innovation, the GBA and Shenzhen in particular boast strong technological capabilities, and advanced technologies in the fields of artificial intelligence (AI), big data and cloud computing. The future growth of cross-border financial business will only increase the demand for fintech. The GBA's huge market, diverse application scenarios, technological strength, and innovative atmosphere provide great conditions for the accelerated development of fintech. For this reason, international commercial banks in Hong Kong SAR and Macao SAR are gradually increasing their strategic investment in fintech companies or are seeking suitable partners in the GBA. In January 2020, Standard Chartered Bank strategically invested in a Chinese domestic supply chain finance platform, Lianyirong Digital Technology Group Co., Ltd. (Lianyirong) (联易融数字科技集团有限公司), in order to use blockchain technology to upgrade its supply chain financial services and related management. In April 2021, Lianyirong was listed on the main board of the Hong Kong Stock Exchange (HKEx).

Meanwhile, many banks in mainland China have made significant achievements in fintech development. For instance, China Merchants Bank (CMB) has committed to building a fintech bank that focuses on digital customer acquisition and digital operations. The bank has supplemented its digital customer acquisition platforms, CMB App and CMB Life App, with intelligent customer services, intelligent risk control, and intelligent investment advisory tools to realize digital operations. In another example, China Guangfa Bank has applied fintech to financial services by developing smart products in areas such as smart registration, smart payment collection, smart bidding and smart bookkeeping, providing customers with more efficient and convenient financial services.

In addition, companies are constantly strengthening the ways that they combine the use of financial data and other cross-domain data. Model-driven financial intelligence is becoming a new direction for big data applications; and the integration, sharing and opening up of financial data is becoming a trend. Going forward, the implementation of supportive policies in the GBA in combination with fintech development trends will bring commercial banks new opportunities and drive their growth. We believe that commercial banks operating in the region should increase their investment in fintech, actively explore the application of 5G, big data, blockchain and AI technologies in the financial sector, and use these cutting-edge technologies to enhance the convenience and security of financial services. By improving their technological capabilities, commercial banks can drive the digital transformation of their business, optimize their operational and management processes, and make their business processes more efficient.

Conclusion

The GBA is one of the most prosperous regions in China. As regional development advances, demands for infrastructure construction, industrial upgrade-oriented funds, and cross-border financial products and services continue to emerge, providing a growth incentive to commercial banks operating in the region. The successive introduction of favorable policies in Guangdong, Hong Kong SAR and Macao SAR will provide additional support for financial innovation and the opening up of commercial banks.

In the development of the GBA, the central focus is now on finding ways for commercial banks to integrate into and support the construction of the GBA. By improving interconnectivity, the GBA's unique Wealth Management Connect mechanism has made the capital markets more open and free, while also enabling more diversified cross-border asset allocation. Going forward, resources and markets within and outside the region should be further integrated in order to reduce trade barriers, accelerate the innovation of financial products and businesses, and inject new vitality into the financial sector. At the same time, commercial banks in the GBA should take advantage of the synergies in technological innovation and financial development produced by the "9+2" city cluster to expand cooperation and promote two-way opening up. In the future, banks should fuse the development of fintech and green finance so that these sectors can serve as a powerful engine that drives the region's economic growth and produces mutual benefits.

Authors:

Ivan Li,
Head of Financial Services,
Southern region
KPMG China

Christy Ye,
Partner, Financial Services
KPMG China

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

2.7 Exploring development paths for banks' fintech subsidiaries

A The development journey of banks' fintech subsidiaries

Since Industrial Bank established its first fintech subsidiary, Industrial Digital (兴业数金), through its subsidiary Industrial Guoxin Asset Management (兴业国信资管) in November 2015, Chinese commercial banks have been setting up fintech arms one after another. This trend has been driven by three factors: commercial banks' own need to transform, market demand, and external competition. So far, 13 banks have set up fintech subsidiaries, including major state-owned banks, national joint-stock banks, and local city commercial banks.

1. Joint-stock commercial banks have assumed a leading role

Following in the steps of Industrial Bank, Ping An Group, CMB, China Everbright Group, Minsheng Bank, and Hua Xia Bank created their own fintech subsidiaries. Most of the joint-stock banks that are setting up fintech arms are characterized by strong technological capabilities and light organizational structures. Among them, Ping An OneConnect (平安壹账通), a subsidiary of Ping An Group, was listed on the New York Stock Exchange in December 2019, becoming the first banking fintech subsidiary to go public.

2. State-own banks followed suit

In April 2018, China Construction Bank (CCB), a major state-owned bank, established CCB Fintech (建信金科) with a registered capital of RMB 1.6 billion, which is by far the largest registered capital among banks' fintech companies. After that, ICBC, Bank of China (BOC), ABC, and Bank of Communications (BoCom) formed their own fintech arms. Supported by their strong shareholder backgrounds and the financial strength of their parent groups, the fintech subsidiaries of large state-owned banks enjoy major competitive advantages when launching technological products and services in the market.

3. City commercial banks have gradually joined the club

Bank of Beijing formed Beiyin Fintech Co., Ltd. (北银金融科技有限责任公司) in May 2019, becoming the first city commercial bank to set up a fintech arm. Bank of Langfang also established Langfang Yida (廊坊易达科技) in November 2020. The registered capital of fintech subsidiaries founded by city commercial banks is significantly smaller than that of the fintech arms initiated by the major state-owned banks and joint-stock banks.

Besides the launch of fintech subsidiaries by commercial banks, it is worth noting that Chengfang Fintech Co., Ltd. (成方金融科技有限公司), Zhonghui Fintech (Shenzhen) Co., Ltd. (中汇金融科技(深圳)有限公司), and Beijing National Fintech Certification Centre Co., Ltd. (北京国家金融科技认证中心) were founded by the People's Bank of China in the past 2 years. In August 2019, the central bank issued the Fintech Development Plan (2019-2021) (the "Plan"), which put forward the following aims:

- Further strengthen fintech application capabilities;
- Deepen integration and coordinate the development of finance and technology;
- Promote fintech development in China to bring it to the international forefront;
- Realize the progressive and controlled application of fintech, steadily enhance financial service capabilities, significantly improve financial risk control, continuously boost the efficiency of financial regulation, and constantly improve fintech to support the real economy.

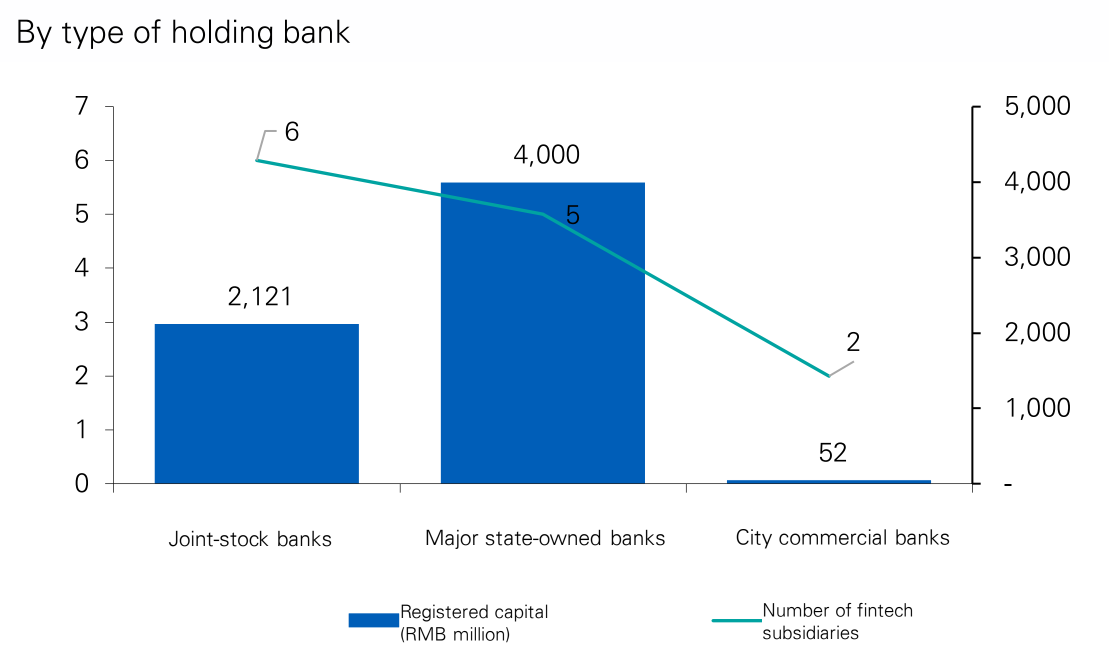
The creation of fintech companies by the People's Bank of China aligns with the aims set out by the Plan. The Plan's overall goals are to coordinate infrastructure planning and promote the development of fintech.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

B Current composition of banks' fintech subsidiaries

1. By type of holding bank

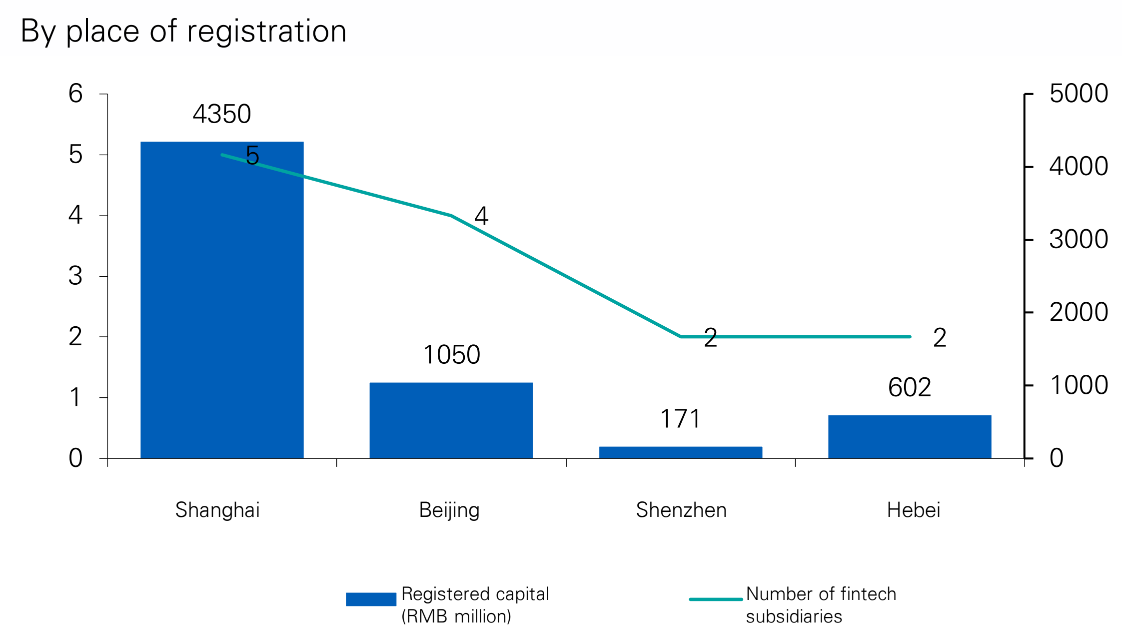
Joint-stock banks are ranked first in terms of the number of fintech subsidiaries formed, followed by major state-owned banks. In terms of registered capital, the registered capital of fintech companies created by major state-owned banks is significantly higher than that of subsidiaries founded by other banks.



Source: Public data and KPMG analysis

2. By place of registration

In terms of places of registration, Shanghai has the largest number of fintech firms initiated by banks, and their registered capital is significantly higher than those located in other cities. Shanghai is followed by Beijing in this regard. Additionally, it is worth noting that ICBC Technology, which is headquartered in Xiong'an New District, Hebei, has offices in Beijing in addition to Xiong'an.



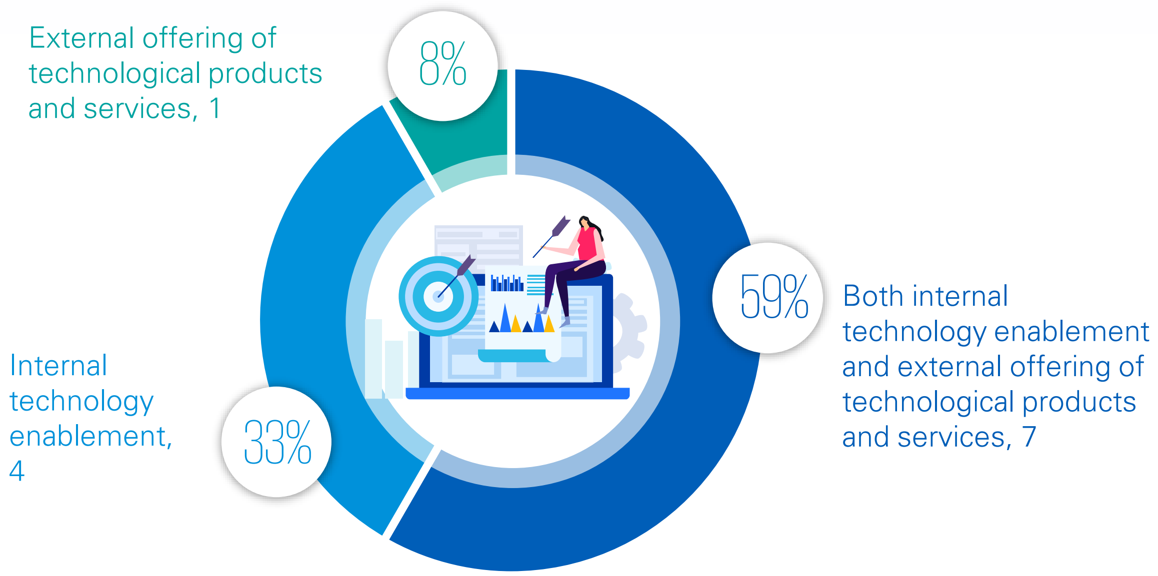
Source: Public data and KPMG analysis

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

3. By development positioning

In terms of development positioning, seven fintech subsidiaries have been established in order to enhance intragroup technology enablement and externally offer technological products and services and digital solutions. Four fintech subsidiaries are focusing on internal technology enablement. Only one company, CMB Yunchuang (招银云创), is positioned solely to provide digital solutions to external customers.

Development positioning of banks' fintech subsidiaries



Source: Public data and KPMG analysis

Table 1: An overview of 13 fintech subsidiaries formed by banks

Banks	Fintech subsidiaries	Date of incorporation	Development positioning
Industrial Bank	China Industrial Digital Financial Services (Shanghai) Co., Ltd. (兴业数字金融服务（上海）股份有限公司)	2015-11-10	It has been set up as a technology innovation incubator to serve the group, and it is responsible for technology research and development (R&D) and digital innovation.
Ping An Group	OneConnect Financial Technology Co., Ltd. (上海壹账通金融科技有限公司)	2015-12-29	It offers "technology and business" solutions to financial institutions to help them increase revenue, efficiency and service quality; reduce risks and costs; and achieve digital transformation.
CMB	CMB Yunchuang (Shenzhen) Information Technology Co., Ltd. (招银云创（深圳）信息技术有限公司)	2016-02-23	It serves as CMB's uniform platform for the provision of fintech solutions to external customers, and its core competencies lie in the provision of digitalization services to domestic companies. With the goals of developing fintech and offering technological products and services externally, CMB Yunchuang is committed to building an effective fintech ecosystem for banks and enterprises and enabling them technologically.
China Everbright Group	China Everbright Technology Limited (光大科技有限公司)	2016-12-20	It enables intragroup companies technologically by providing them with fintech innovation services and helping them digitalize their businesses. In addition, it targets a wider market and cooperates with and provides fintech solutions to external customers. It has a subsidiary, Everbright Cloud Fee Payment Technology Co., Ltd. (光大云缴费科技有限公司).
CCB	CCB Fintech Co., Ltd. (建信金融科技有限责任公司)	2018-04-12	It is committed to promoting fintech development and linking various elements in the ecosystem to help the group achieve digital transformation. Meanwhile, it is also developing an open, shared platform that provides management consulting and system construction services to its peers.
Minsheng Bank	Minsheng Fintech Corp, Ltd. (民生科技有限责任公司)	2018-04-26	It deploys big data, cloud computing, AI, blockchain and other innovative technologies to offer integrated digital and smart fintech services to Minsheng Bank, financial alliance members, small and medium-sized banks, private enterprises and Internet users, and it is helping build a fintech ecosystem.
Hua Xia Bank	Longying Zhida (Shenzhen) Technology Co., Ltd. (龙盈智达（深圳）科技有限公司)	2018-05-23	It exclusively serves Hua Xia Bank, providing its parent with various technology services, including data management, smart operations, and new technological applications. It broadens financial service scenarios and strives to create a vertical financial ecosystem and a horizontal closed-loop ecosystem to achieve the ultimate financial experience.
ICBC	ICBC Technology Co., Ltd. (工银科技有限公司)	2019-03-25	It helps ICBC implement its smart banking strategy, and it is an incubator that aims to boost fintech innovation. It enables banking customers to innovate their businesses and promotes the development of a new ecosystem that encompasses "finance and industry."
Bank of Beijing	Bank of Beijing Fintech Co., Ltd. (北银金融科技有限责任公司)	2019-05-18	It provides integrated digital and smart fintech services to Bank of Beijing, non-bank financial institutions, enterprises, and Internet users.
BOC	Bank of China Fintech Co., Ltd. (中银金融科技有限公司)	2019-06-11	While offering services to intragroup companies, it is also working to develop business outside the group. It serves customers in the financial sector and seeks cross-industry cooperation.
ABC	ABC Fintech Co., Ltd.(农银金融科技有限责任公司)	2020-07-28	It provides intragroup subsidiaries with services related to informatization construction and financial scenario construction. It also provides fintech solutions to external customers and conducts innovative fintech R&D.
BoCom	Bank of Communications Fintech Co., Ltd. (交银金融科技有限公司)	2020-08-25	With the group's overall strategy in mind, it leverages the group's IT resources and platform to serve the group and the group's main business lines. It conducts R&D and supplies talent in the field of high-end infrastructure, conducts application R&D for intragroup subsidiaries, and provides products and services to the bank's third-party customers.
Bank of Langfang	Langfang Yida Keji Co., Ltd.(廊坊易达科技有限公司)	2020-11-08	It provides IT support for its parent bank.

Source: Public data and KPMG analysis

C Major pain points

1. The development positioning of fintech subsidiaries needs to be clarified

The 13 fintech companies that have been set up by banks focus on cutting-edge technological applications and enablement, digital transformation of financial business, and the construction of fintech ecosystems. As fintech development matures and trends toward a more refined division of labor, fintech subsidiaries will need to determine how to develop business based on their own characteristics in a more crowded marketplace.

2. Inadequate synergy between the businesses of parent banks and their fintech subsidiaries

Most integrated subsidiaries can tap the resources of their parent banks and "repay" their parents by creating synergies among business lines. Integrated subsidiaries, such as insurance companies, securities companies, shareholding platforms, debt swap subsidiaries and leasing companies, can leverage their parent banks' capital strength and brand name to develop business in related fields and quickly obtain returns and market share. In contrast, the business of fintech subsidiaries differs from conventional financial business, and they face certain barriers. Their business relationship with their parents revolves around the technological products and operation and maintenance services that have been outsourced to them. As a result, it is not as easy for them to expand externally. Once fintech companies reach a certain business scale and obtain competitive advantages, they should work with their parents to explore how to develop business lines that provide products and services to external customers.

3. A lack of technical experience and a shortage of IT personnel

Constrained by the nature of their principal businesses, fintech subsidiaries are more inclined to focus on technologies that can serve conventional financial business. Consequently, their technological development is relatively narrow and shallow. In general, technological elements complement each other, and a more systematic technical structure can solve more practical problems. On another front, we have noticed that these companies are extensively recruiting IT talent, and they are adjusting their performance-based incentives and compensation packages to attract IT personnel. By using market-based mechanisms and engaging in benign competition, they aim to reduce the talent gap and improve the quality of their IT personnel. Nonetheless, the talent gap is still huge compared with the Internet giants, and it will take time for them to improve their training systems and put in place effective personnel replacement mechanisms.

4. Their competitive advantages are not clear

Apart from their lack of technical skills and shortage of IT personnel, banks' fintech subsidiaries are young compared to traditional Internet companies and IT vendors. It is difficult for these young fintech companies to gain competitive advantages in the short term. In addition to common cloud models such as IaaS and PaaS, they need to research and develop other popular business lines such as SaaS in order to establish themselves as technology R&D companies and better respond to challenges.

D Exploring future development paths and strategies

1. Invest in external companies via shareholding platforms

Currently, banks are building their fintech arms through their shareholding platforms. For example, ICBC International is ICBC Technology's direct shareholder. This shareholding structure makes it easier for fintech subsidiaries to invest in external companies to facilitate the development of their technology and business. The advantages associated with this structure are twofold. First, the costs associated with emerging technology R&D and team development are high, and this problem can be solved by investing in specialized companies. Second, fintech ecosystem construction needs to consider the entire industry chain. By flexibly holding shares and investing in companies in different parts of the industry chain, banks can observe and understand the characteristics and needs of each industry component.

2. Continuous internal technology enablement

Traditionally, given the internal management system and its function, a bank's technology department is responsible for system operations and maintenance and supporting the digitalization of conventional businesses. All R&D work is undertaken to satisfy the bank's internal needs and temporary changes. By setting up fintech arms, banks are able to break their institutional constraints because the fintech firms do not passively undertake R&D work at the request of different departments, business lines and organizations. By splitting the IT function, fintech subsidiaries are able to take the initiative and systematically conduct R&D projects, which improves efficiency and ignites enthusiasm in employees.

In the short term, fintech subsidiaries will continue to focus on internal technology enablement because they are familiar with their parent banks' businesses and can accurately grasp their needs. Moreover, they can trial their innovative business with their parent companies, and obtain feedback and suggestions for improvement before launching the products and services in the market. This process will lay a solid foundation for the next step of business development.

3. Offer products and services for small and medium-sized banks

At present, the overall business scale of small and medium-sized banks is relatively small, and their investment in information system construction and digitalization in areas other than their main business lines is rather low. As new technologies and information-based products emerge at a rapid pace, these companies will lag behind large commercial banks and other financial institutions. Even though most small and medium-sized banks outsource IT services to make up for technological weaknesses, most IT vendors do not specifically serve financial or banking customers; and the products and services they offer do not exactly match banks' business needs, resulting in a waste of resources and deficiencies in certain functions. In contrast, one of the main reasons banks establish fintech subsidiaries is to serve the internal needs of their banking businesses. In this capacity, banks' fintech arms can effectively analyze banks' business needs and develop sophisticated products to meet those needs. By approaching banking products from a technical perspective, banks can also explore the business logic behind them and gain unexpected insights.

4. Provide solutions to the government

As the "smart city" and "smart ecosystem" concepts become more popular, government projects related to infrastructure, urban planning and public services are presenting a range of business opportunities. With their stellar reputations, banks' fintech subsidiaries have a better chance of being able to contact these customers and sign contracts for government projects and public service projects. In recent years, we have observed many cases in which businesses were tasked with creating government platforms or enabling intelligent and fast transactions for governments. By virtue of their nationwide networks of branches and outlets, large commercial banks can easily grasp local business needs and government opportunities, and they can employ the help of their fintech subsidiaries to successfully deliver these engagements. These government projects provide another opportunity for banks and fintech subsidiaries to generate business synergies.

5. Promote open banking

Parent banks and their fintech arms can also generate business synergies by participating in the development of open banking. By using APIs to connect their parent banks with business partners and service vendors, fintech subsidiaries can establish relationships with external institutions through system operation and maintenance, while also helping their parent banks provide financial services. Collaboration with business partners can strengthen banks' technological and business capabilities. Furthermore, some loyal customers will use auxiliary open banking services for the sake of convenience, which will alleviate the income pressure associated with intermediate business to a certain extent. In this way, open banking provides a breakthrough area that gives parent banks the opportunity to transform their sources of revenue.

Conclusion

The development prospects for banks' fintech subsidiaries remain wide. With their strong shareholder backgrounds, fintech firms face both opportunities and challenges in their efforts to explore practical application scenarios. Going forward, these fintech companies will constitute an integral part of the overall fintech ecosystem.

Author:

Andrew Huang,
Head of FinTech
KPMG China

2.8 Risk management in commercial banking reaches new heights under the new reality

Commercial banks are deploying various models across all aspects of their business, including risk and compliance (e.g. credit risk, market risk, operational risk, counterparty credit risk, liquidity risk, stress testing, and anti-money laundering), and business and financial areas (e.g. algorithmic trading, transfer pricing, revenue optimization, cost allocation, human resource allocation, valuation and pricing, impairment, profit and loss forecasting, and marketing strategy).

Model risk management is essential for banks. Regulators in various countries are paying more attention to the risks associated with models and have promulgated relevant regulations to mitigate these risks. Countries that have issued such regulations include:

- China: In July 2020, the CBIRC issued the *Interim Measures for the Administration of Online Lending Business of Commercial Banks*. The measures focus on regulating risk data and risk model management, and they require the establishment of a full-process management system covering model development, testing, review, monitoring and decommissioning to ensure the validity and stability of risk models.
- United States: In April 2011, the Federal Reserve issued *SR 11-7: Guidance on Model Risk Management*, becoming the first regulator to issue regulations on model risk management. The supervisory letter specifies the model risk management framework, including the definition of model risk management, and sets out policies and systems related to model implementation, model validation, and model risk management.
- United Kingdom: In April 2018, the Bank of England's Prudential Regulation Authority (PRA) issued *PS7/18: Model risk management principles for stress testing*, which requires banks using models for risk management to adopt stress test models. The policy statement aims to help banks implement policies and procedures for identifying and controlling risks arising from stress test models.
- European Union: In October 2018, the *European Central Bank* (ECB) issued the ECB guide to internal models. The first chapter of the guide, General topics, sets out the criteria for model risks.
- Poland: In July 2015, the Polish Financial Supervision Authority issued the *Recommendation W on Model Risk Management in Banks*, which provides clear guidelines and common standards for model risk management.
- Canada: The Canadian Office of the Superintendent of Financial Institutions (OSFI) issued *E-23: Enterprise-wide Model Risk Management for Deposit-Taking Institutions* in September 2017. The guidelines cover model risk materiality, the model management cycle, external vendor (models) products, the models of foreign banks' subsidiaries, internal auditing for models, and model inventory.

In addition to complying with regulatory requirements and expectations, effective model risk management can improve internal management. First, it can improve the position of model risk management in the bank's risk management framework by advancing the status of model risk from below operational risk to a level that is parallel with other risks, thus strengthening banks' risk culture. Second, by boosting their model risk management capabilities, banks can lower the likelihood that they will make decisions based on flawed model results, thereby reducing reputational risk and financial risk. Third, the use of appropriate rating or pricing models in credit and financial markets can help banks optimize their trading strategies, make better decisions and more effectively conduct profit and loss management.

Model risk management requires the establishment of a complete governance structure and a set of management tools. To this end, banks should do the following:

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

1. Set up a sound structure for model risk governance

A robust model risk management mechanism requires an effective governance structure. The structure's three lines of defense restrict and complement each other, creating a complete system. They are not isolated and cannot be substituted for one another. Banks must ensure that the three lines of defense perform their duties in order to effectively implement a comprehensive model risk management system and enhance operations and management. The model risk management mechanism must be supported and supervised by the board of directors and senior management to ensure its effectiveness. Meanwhile, under an effective governance structure, banks need to set risk preferences that are consistent with model planning, establish risk indicators that are at the same level as other types of risks, and issue model risk management policies and procedures. By implementing these measures, banks can ensure the effectiveness of model risk management.

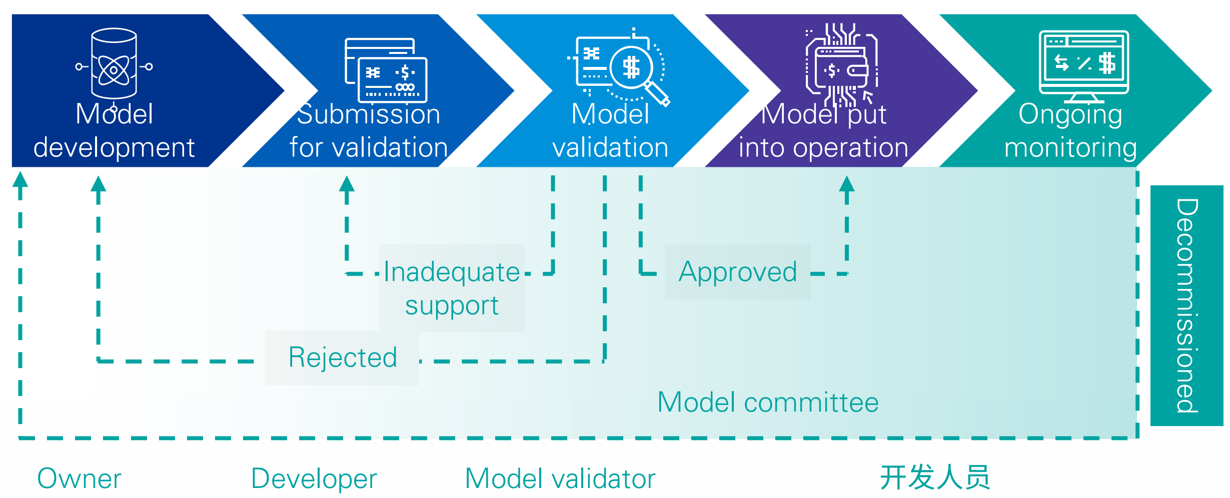
2. Use six model risk management method

Banks can manage model data and risks in a centralized manner using the following six model risk management methods:

- Integration: Integrate all model data in a shared inventory that can be accessed by stakeholders
- Evaluation: Evaluate the model's risk indicators to monitor risks and issue early warnings
- Tracking: Track the model's entire life cycle, including approval dates, execution dates, modification dates and related details
- Quantification: Quantify model risks based on integrated information
- Reporting: Generate reports for reporting purposes
- Rectification: Rectify models that have been deemed invalid or models for which early warnings have been issued

3. Establish a complete model life cycle

The life cycle of a model begins with model development and goes through model validation, implementation and operation, and ongoing monitoring. It covers all relevant parties involved in model management, including the model committee, model owner, model developer, and model validator. The responsibilities of each related party are as follows:



(1) Model committee

- The model committee ensures that model risk management tools support the group's strategic development; defines the model's risk appetite; monitors model risks; approves new models, model modifications or model decommissioning; and reviews model risk management reports.

(2) Model owner

- The model owner records and analyses the commercial applicability of the new or modified model to model users, such as in comparison with other models.
- The model owner identifies and formulates model decommissioning methods, submits decommissioning evidence to the model risk management committee, and ensures that the data in the model inventory is up to date.

(3) Model developer

- During the development phase, the model developer develops the model according to model development standards, submits validation data, and documents the development process and ongoing monitoring method.
- During the implementation and production phase, the model developer produces the model, tests the model according to model development standards, and ensures that the model is implemented as planned.

(4) Model validator

- Use independent validation procedures to ensure the compliance, applicability and effectiveness of the model.
- Inspection and evaluation: Check the timeliness of the documents and ensure that they are available for third-party review, review the model owner's model selection results, check the applicability of the model, and evaluate the inputs, calculation processes and reporting procedures in the development phase.
- Second review: Evaluate the reliability of the concept and the model's validity according to the model's purpose and product scope, including by conducting benchmark model analysis and sensitivity testing to evaluate the accuracy of the model and forecasts.
- Ongoing monitoring and regular review (at least once a year): When a model defect has the potential to cause immediate or significant losses, the validator should perform back-testing, differential analysis, stress testing, and sensitivity analysis.

4. Establish a model risk management system

The model risk assessment and control system can standardize the model risk management process and increase the degree of automation of validation testing. The system should be able to perform a variety of functions, including inventory management, reporting, file control, model risk analysis, model development and model validation.

01 Whole-process model management

The system should provide an end-to-end view of each model, including:

- Application for model development, approval, and change management
- Validation management and control prior to launch
- Ongoing monitoring, and problem and deviation handling
- Regular/irregular validation
- Change of model status

02 Model inventory management

- Classify the bank's models (e.g. models that are in use, models that have been decommissioned, and models that are under development) and manage them in a unified way
- Record and keep track of the responsible department, model development department, model validation department, supporting systems or tools, and the model's status

03 Model risk assessment

- Provide model risk assessment and management tools, and regularly assess the model's materiality, complexity, and defects
- Determine the frequency and means of subsequent monitoring and management based on the assessment results, support the recording of historical assessment results, and support time series comparisons

04 File management

All supporting documents involved in the model development and model risk assessment process, as well as documents related to model inventory, should be maintained and accessible according to set authorizations. Such documents include the uploading of traces or approval documents related to model development applications, approvals and change management, as well as documents concerning model methodology, model validation, issue rectification and tracking, approval for change of model status, and model risk assessment

05 Reporting

Stakeholders should be able to generate real-time reports as needed to meet regulatory requirements and internal operation and management needs, including:

- Data quality and model input inspection reports
- Model classification reports
- Model performance reports (issue status and owner, model validation results, etc.)
- Model usage tracking reports
- Audit reports

…

06 Model risk management view

Visually display the model inventory, model status, current step in the model, responsible department, risk assessment results, and key points of each process in model risk management

Author:

Jin Cao,
Head of Financial Risk Management Consulting
KPMG China

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

2.9 A clear third-party management strategy helps banks provide high-quality services

Third-party risk management (TPRM) aims to assess and manage risks arising from third-party products and services. From the perspective of management objects, third-party risk management involves internal and external third parties, where external third parties include suppliers, service providers, contract agencies, and agents, and internal third parties include affiliates, parent companies, and shared services. In terms of risk categories, 10 types of potential risks are covered, including compliance risk, strategic risk, and concentration risk.

Regulatory/ compliance risk	– Regulatory requirements – Theft/crime/dispute risk	– Fraud, anti-bribery and corruption/sanctions – Compliance with internal procedures and standards
Strategic risk	– Service delivery risk – Expansion/roll-out risk – Mergers and acquisitions	– Alignment with outsourcing strategy – Intellectual property risk
Subcontractor risk	– Applicable across all areas	

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Concentration risk	– Supplier concentration across critical services – Industry concentration (including subcontractors) – Concentration of critical skills (i.e. tech support)	– Geographic concentration – Reverse concentration
Technology/cyber r	– Information security – Cyber security – Data privacy/data protection	
Country risk	– Geopolitical risk – Climate sustainability	
Financial stability	– Financial risk from lending to a third party – Liquidity risk	
Operational/supply risk	– Business continuity – Disaster recovery – Physical security – Operational resilience	– Performance management (including SLAs) – Model risk – Human resources risks (conduct risk, etc.)
Reputational risk	– Negative news – Lawsuits (past and pending) – Brand of the third party	– Key principals/owners of the third party – Workplace safety
Legal risk	– Legal jurisdiction – Contract terms and conditions	

At the beginning of 2020, KPMG surveyed enterprises across six industries in 14 countries and regions around the world, and the survey results revealed four major findings:

1. Third-party risk management is strategically important.

Global events and economic uncertainty have underlined how necessary third parties are for business operations. More than three out of four respondents (77%) say third-party risk management is a strategic priority of their business. This finding reflects how dependent most businesses are on third parties to deliver critical products and services to their customers. Businesses should consider four phases in the wake of a pandemic or global event and the resulting economic uncertainty: reaction, resilience, recovery, and the new reality. Specifically, with respect to TPRM, the first two of these phases deal with the emergency shift to remote-working models and the reconfiguration of third-party service delivery models to ensure services are being maintained for clients and customers. The second two phases cover preparation for how businesses will operate in the new reality, where control environments are expanded to homes for remote contingent workers and where social distancing is required at work locations to prevent subsequent virus outbreaks.

2. Companies are inconsistent in their approach to TPRM

Businesses need to determine whether each third party has the ability to manage risks in line with their expectations before deciding whether to engage that third party. Holistic risk identification and assessment in the onboarding process, as well as during the lifecycle of the contract, is crucial for organizations to have line of sight into the risk profile of their entire third-party portfolio. Worryingly, however, the research suggests that many organizations are not prepared for the complexity that comes with assessing multiple risks in a cohesive manner across business lines and regions. Three-quarters (74%) of respondents admit that their organizations urgently need to make TPRM more consistent across the enterprise.

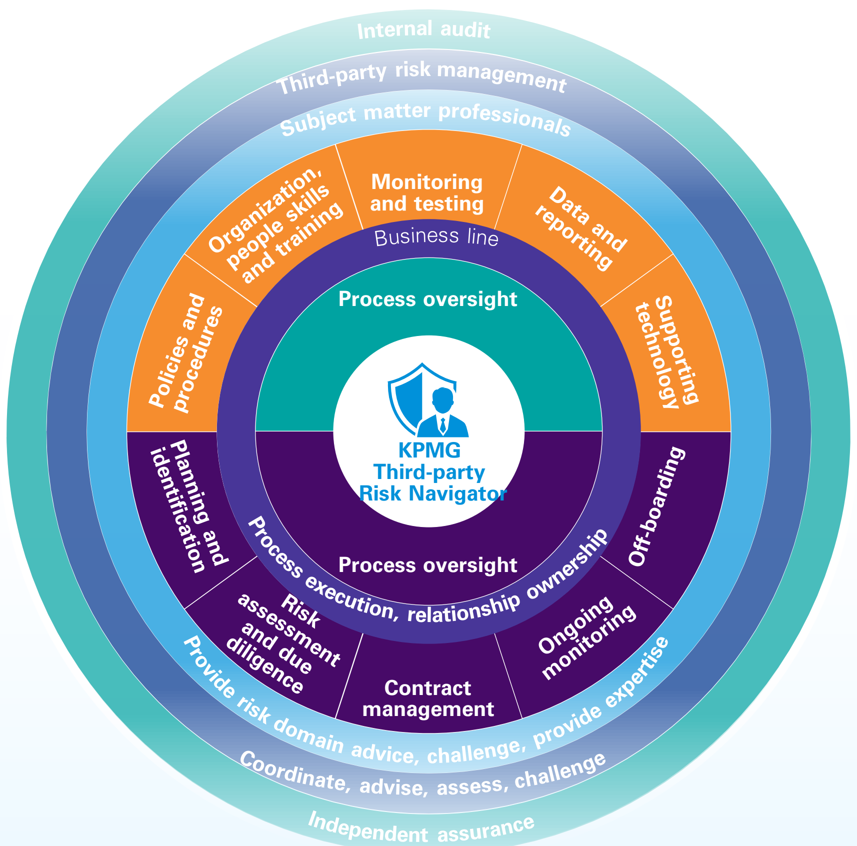
3. TPRM programs should be risk-based and focus on solving major problems

Unfortunately, managing third-party risk in today's business environment is far from straightforward. Given limitations in organizational resources and budget, half of businesses do not have sufficient in-house capabilities to manage all the third-party risks they face. Hence, organizations can achieve both efficiency and effectiveness by taking a risk-based approach to assessing and monitoring third-party products and services that present the highest risk to the organization.

4. Data and technology are improving the performance of TPRM teams

At present, only a quarter of businesses (25%) use technologies to improve either workflow automation or monitoring of third parties. However, 61% of respondents indicated that technology is their most favored area of investment. Today, organizations have the potential to innovate their approach in three areas: greater automation of the internal TPRM workflow process; leveraging shared service providers for due diligence questionnaires and responses; and moving away from point-in-time risk assessments to continuous control monitoring.

Successful TPRM programs follow a defined process for identifying, monitoring, and managing third-party risk under the leadership of defined program governance. The chart below outlines the key areas of a TPRM program:



An effective TPRM operating model is based around four pillars: governance, process, infrastructure, and data.

Governance

Specify the responsibilities and reporting paths of the board of directors and senior management; formulate an outsourcing and third-party strategy as well as a defined risk appetite; and specify clear roles, responsibilities, and accountabilities across the TPRM program and TPRM lifecycle.

Process

Ensure that execution is consistent across the TPRM program to provide quality data for analytical purposes; create an assessment team that has the right mix of skills, expertise, and bandwidth; conduct continuous risk analysis and monitoring before entering the market; and ensure that the TPRM program covers fourth-party and material subcontractor risks, in addition to third-party risks.

Infrastructure

The TPRM technology architecture should support efficient workflow, task automation, and reporting; a service delivery model should be deployed that aligns with the company's operating style (either centralized or distributed) and allows for consistent management of risk across business lines and regions; and TPRM activities and technology should be integrated into existing firm-wide processes, such as procurement, legal, and finance, and into existing risk oversight functions and activities.

Data

Collect real-time data around the TPRM program's ability to manage the company's third-party assessment, onboarding, and monitoring activities; build a comprehensive data model for the collection of third-party information, including service details, risk scoring, contract information, and performance monitoring; and obtain internal data feeds that monitor and record specific events and incidents that are attributable to third parties, and external data feeds that monitor real-time information about the third parties, such as adverse media reports, changes in business ownership, corporate actions, cyber vulnerability scores, and financial viability ratings.

Businesses can optimize TPRM programs across the four pillars of governance, process, infrastructure and data. To make this happen, businesses should take the following steps:

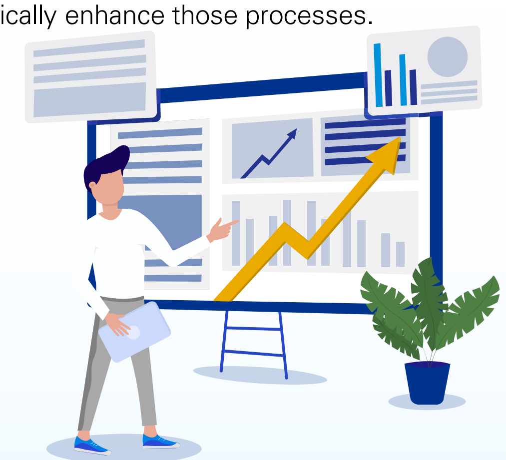
Agree on the vision

Agree on the vision

Businesses should agree on the program's vision, guardrails, ownership, and goals for technology enablement. According to KPMG International's survey, technology enablement is essential for scaling TPRM and processing large volumes of data, and it is an area where many organizations are willing to make an investment in the short term.

Source: *Third Party Risk Management outlook 2020*, KPMG International, 2020

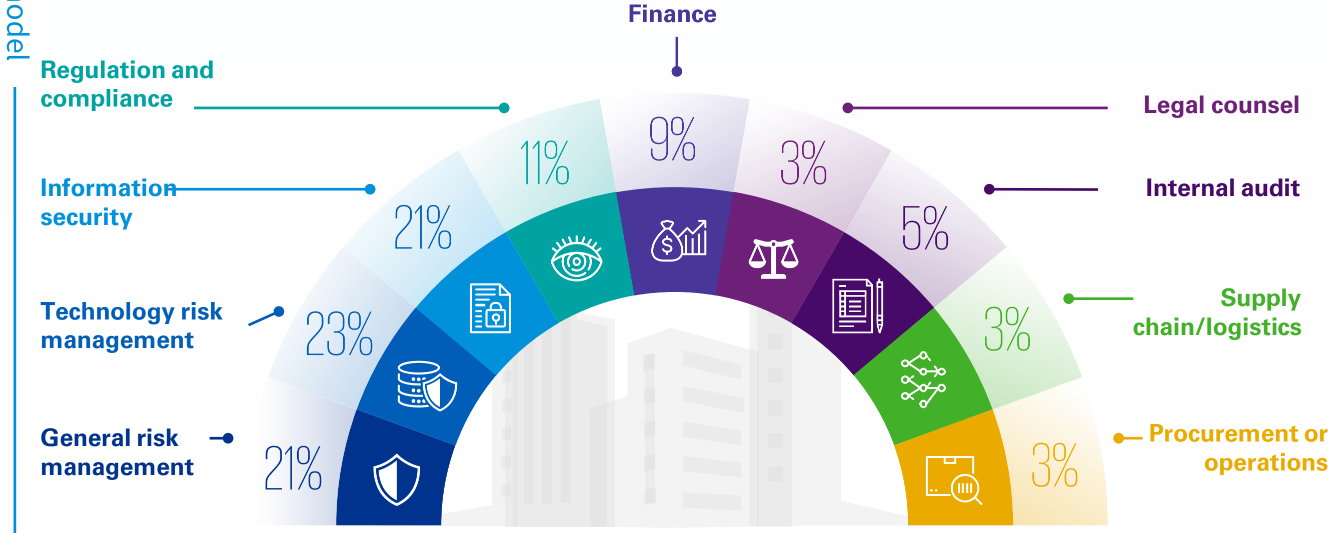
At the same time, technology should be seen as an enabler rather than a driver of progress. Automating weak processes will not magically enhance those processes.



Build the model

Build the model

When developing the model, companies should determine exactly how, when, and where to involve business stakeholders throughout the TPRM lifecycle. The second line of defense for TPRM involves many departments (see the chart below), and each department is responsible for the risks it oversees. The business unit is accountable for the management of third-party services on a day-to-day basis.



Source: *Third Party Risk Management outlook 2020*, KPMG International, 2020

Optimize the process

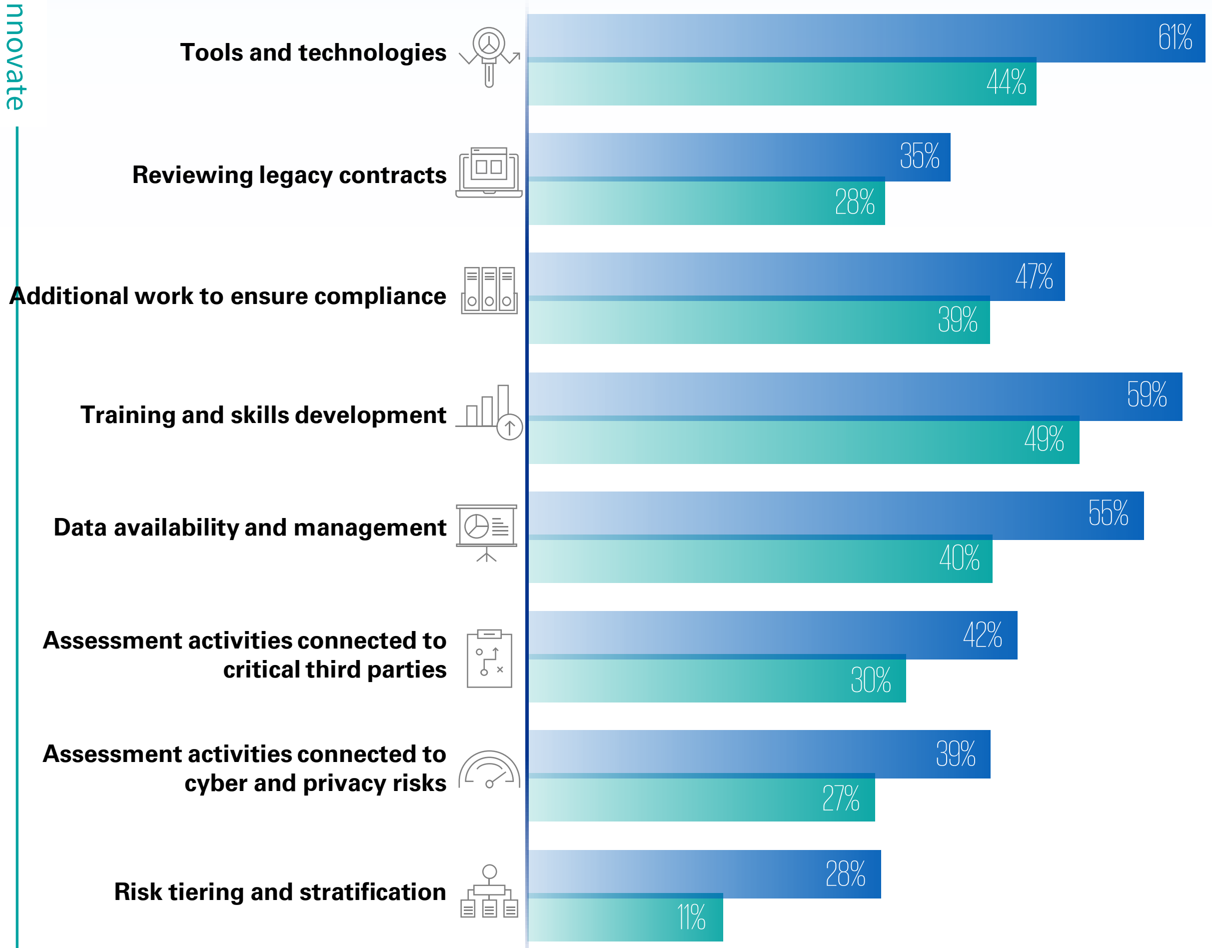
Optimize the process

TPRM can be achieved through risk stratification. Businesses can establish a disciplined risk-scoring methodology for third-party services to segment third parties into three categories: (i) those with low risk who do not need to be managed; (ii) those with moderate risk that can be appropriately managed using the standard TPRM process; and (iii) those with high risk that require special management. For example, for third parties that present a homogenous risk profile and that exhibit high risk after being aggregated, companies can use a special program to more efficiently manage them on a centralized basis.

Evolve and innovate

Evolve and innovate

TPRM teams are using automation, data analytics, natural language processing, and scoring services to continuously monitor select risk areas in an affordable and scalable manner, conduct performance management, and monitor contract compliance (see the chart below). TPRM programs are also exploring how they can use machine learning to evaluate internal data around risk events and identify risk events that may have been caused by a third party.



Firms with larger TPRM budgets   Firms with smaller TPRM budgets

Source: *Third Party Risk Management outlook 2020*, KPMG International, 2020

Author:

Kevin Tao
Partner, Financial Risk Management Consulting
KPMG China

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

2.10 Digital transformation of compliance management and internal audit in banks

In recent years, with the rapid development of financial and digital technologies, digitalization has been implemented across the financial industry. Technologies including artificial intelligence, big data, and blockchain have been increasingly applied and have become the main drivers of innovation and development for the financial industry. In the digital age, banking needs to be transformed and reshaped. Commercial banks have included digital transformation in their strategic priorities and implemented digitalization in areas related to channels, products and services, and customers. Meanwhile, banks that are clinging to traditional operating and development models are facing great challenges. Within this context, the emerging "Bank + Technology" model has become a new growth driver. As the application of financial technology is more advanced in various business sectors, compliance management and internal audit functions are facing unprecedented challenges from massive amounts of online and real-time transactions. The models and methods used to conduct traditional monitoring and management can no longer meet banks' growing needs.

Digital transformation of internal audit

Internal audit is unique in that it is the only function in an organization that has the authority and capabilities to review all business and management functions from an "end-to-end" perspective, and to assess the impact of changes in the bank's risk profile in a forward-looking manner. Owing to this position, internal audit tends to be the largest data user in the organization; and during the transformation process, this function is paying special attention to figuring out how to use digital capabilities to improve its relationship with business units, its agility in identifying and assessing risks, and the continuity of its monitoring activities. These goals require more extensive scenarios for data analysis and exploitation; more intelligent models, tools and systems; wider audit coverage; and the application of technologies to enable the transition to continuous and agile audits. By making these changes, the

Traditional audit	Big data-driven audit	Continuous audit	Smart audit
• Static annual internal audit plan • Determination of audit plans and audit focuses depends on internal auditors' experience • Random sampling • Manual sampling and document testing • Depends on manually prepared documents	• Static annual internal audit plan • Identifies high-risk areas for audit plans based on key risk indicators • Centralized sampling • Extracts samples from all transactions • Depends on soft copies or editable copies of documents • Applies risk assessment models and risk monitoring and screening models	• Dynamic internal audit plan • Audit plans are fully focused on risks, with value-added input from stakeholders • Real-time risk indicator dashboard • Automated detail testing/exception testing • Depends on more available and complete data • Applies statistical analysis models	• Highly dynamic internal audit plans • Audit plans are automatically generated based on system algorithms and risk indicators • Real-time risk indicator dashboard • Dynamic detail testing/exception testing • Capitalizes on a huge volume of data • Employs machine learning models

internal audit function can act as a "generator of insights," an "internal advisor," and a "partner" in the development of banking business.

From an industry practice perspective, leading commercial banks are working hard to resolve the conflict between the internal audit function's positioning and traditional audit approaches, promote the function's digital transformation, and use digital technologies to empower and reshape internal audit from all aspects in order to move towards a new, data-driven and intelligent internal audit model.

Digital transformation provides the internal audit function with a number of new technologies, models and tools to use to support the performance of its duties, and to process and analyze commercial banks' structured and unstructured data, which have grown exponentially. In addition, through digital transformation, the function can better enable changes to audit coverage, approaches and value enhancement, among other areas; provide the board of directors with timely insights into changes in the organization's risk profile; and provide more powerful support for forward-looking and targeted decision-making.

In terms of scope, commercial banks are shifting away from sample-based auditing in an effort to achieve full coverage. In a traditional audit, audit evidence is obtained through sampling, but conclusions based on sampling are not sufficient to develop a full picture of an organization's risk profile. With data-driven sampling technologies, auditors can scan and screen comprehensive data to ensure full coverage of transactions and business activities, and break free from the limitations of traditional audit sampling.

In terms of how audits are carried out, on-site and post-event project-driven audits are being replaced by off-site audits and continuous audits. Information-based and digitally-enabled intelligent audits have brought about changes in where and how data is acquired, while also improving banks' data analysis capabilities and internal audit procedures. These new auditing methods have even had an impact on audit methodologies. Internal auditors can now obtain and share the information they need in a more efficient manner, carry out more dynamic risk assessments and audit planning, and use indicator monitoring and suspicious-sample screening models to continuously monitor changes in risks and identify potential risky transactions. Furthermore, based on continuous monitoring and an accumulation of effective models, internal auditors can embed audit models into business and management processes to test transaction data continuously and on a real-time basis, including but not limited to quota control, data verification, and authorization and approval. Continuous audits are carried out with limited or no intervention by internal auditors, and such audits are able to identify any breaches in internal controls and automatically generate exception reports.

In terms of value enhancement, traditional audits involve a significant number of "repetitive, redundant, and low value-added" manual procedures. As processes and procedures are moved online and digitalized, they are becoming more standardized, and the availability and quality of data and information have been improved. Enterprises are using intelligent tools to redistribute work between humans and machines and free employees from repetitive rule-based procedures so that they can focus on value-added activities such as managing substantial risks, transitional risks or emerging risks. In this way, the internal audit function is becoming a problem solver instead of just identifying problems, thus enhancing the value of internal audit.

The digital transformation of internal audit should be implemented on a bank-wide basis, and it should be closely integrated with the bank's various activities, such as data governance, system construction, and tool procurement. While balancing costs and benefits, the internal audit function can deploy models and indicators, build and apply systems and tools, and accumulate and leverage digital assets to solve pain points, difficulties, and obstacles in traditional audits and build the core competitiveness of new audits.

In terms of industry best practices, in one case, a joint-stock commercial bank aimed to "reduce costs, enhance efficiency, manage risks and add value" in the digital transformation of its internal audit function. To this end, the bank implemented a variety of initiatives across nine areas: data, systems, tools, models, personnel, processes, systems, architectures and culture. At the micro level, it built a system for the application of audit technologies; and it constructed and optimized its data, systems, tools, and models in order to enrich its audit methods and improve audit coverage, accuracy and efficiency. At the intermediate level, by implementing and applying digital audit tools, the bank was able to remodel and re-engineer its internal audit systems, processes and staffing, laying the foundation for the application of audit technologies. Finally, at the macro level, based on its digital capabilities, it evaluated and adjusted the organizational structure and division of responsibilities for the internal audit function. It also redefined the function's mission, vision and values, which serve as an audit technology assurance system for the digital transformation of internal auditing. Ultimately, the bank built a new internal audit platform that consists of an audit operation platform, a data analysis platform, a monitoring and early warning platform, and a knowledge management platform. This new platform provides the foundation for the internal audit function's new digital capabilities. By taking these measures, the bank was able to address various pain points in establishing an online audit/inspection workflow, developing data acquisition and integrated data analysis capabilities, conducting risk monitoring and continuous auditing, ensuring the consistency of audit terminologies and strengthening audit knowledge management, among other areas.

Digital transformation of compliance management

Due to uncertainties around regulatory differences, geopolitical instability and economic downturns, commercial banks will face challenges in compliance management for a long time to come. In recent years, compliance requirements have become more intensive and specific than ever before as expectations from regulators, investors, counterparties and other market participants continue to increase. In terms of scope, compliance management covers internal control, compliance management, operational risk management, system management, AML, anti-fraud activities, compliance incident prevention and control, employee behavior management, off-site monitoring, authorization management, business continuity and other management matters. In addition, these matters overlap with each other, but at the same time they are also independent of each other. However, the processes and tools for managing these different areas are fragmented and not well integrated, giving rise to problems such as redundancies, waste of resources, low efficiency, and ineffectiveness. To transform compliance management, commercial banks need to adopt a perspective that centers on who and what is being managed (i.e. people, employee behavior, systems, processes, and external events) to build a closed loop and redesign management tools. Applying data and technology in this process is key to improving commercial banks' capabilities to analyze compliance management data and make forecasts based on their results, and it is also key to ensuring that compliance management tools are effectively integrated with business and management scenarios.

Digital transformation promotes the shift from post-event recovery to pre-event monitoring and early warnings.

Currently, compliance management is concentrated on the back end, with unsatisfactory pre-event early warnings and weak process control during events. Its role in handling events seems to be limited to ensuring accountability. More specifically, the compliance function closes loopholes and clears up "messes" by carrying out inspections, taking remedial actions, performing tests and evaluations, ensuring accountability, and imposing penalties. However, what it does produces little effect. At present, an increasing number of commercial banks are relying on data assets accumulated over time, such as data related to accounts, transactions, employees and customers, to carry out monitoring and early warnings in order to gain "foresight." Banks are expanding scenarios related to AML and anti-fraud activities in order to create comprehensive off-site compliance monitoring systems and produce early warnings that are more effective.

In terms of industry best practices, in view of tightening financial regulations and increased penalties for violations, one joint-stock commercial bank developed an employee behavior management system (KYS system) that focuses on employees and their behavior for compliance management purposes. It leverages digital and intelligent technologies to monitor employee behavior across the bank to manage financial crime risks in a centralized and forward-looking manner. Currently, as its starting point, the KYS system uses static fields and monitoring models to monitor the behavior of employees in high-risk positions. The results are used to create employee portraits in different scenarios. Based on these portraits, the KYS system performs multi-level analysis that focuses on key people and events. Furthermore, the system creates a panoramic view of risks covering different latitudes for management. In addition, using the monitoring results, the bank has developed a complete early warning and handling procedure to process monitoring and early warning information online on a centralized basis. Subsequently, the scope of monitoring will be expanded to cover medium and low-risk positions and ultimately achieve bank-wide coverage.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Digital transformation promotes the shift from judgment calls to quantitative assessments and intelligent decision-making

Using its pre-event monitoring and early warning capabilities, the compliance management function can only perceive, identify and issue warnings on risks, and it has to rely on judgments in the absence of quantitative methods and models to assess risks. This has always presented a challenge for compliance management officers. Commercial banks need to collect a wider range of data from external sources, such as those covering regulatory penalties, litigation, legal cases, and breaches by peers. When such information is used in combination with data accumulated internally using different standards, such as data related to violations, breaches, operational risk events, loss data, and problematic data under inspection, commercial banks can establish a map that uses entries and multi-layer tags to link internal and external data, thereby building a "risk information station." By continuously monitoring national macro policies, regulatory policy interpretations, differences in regional regulations, analysis of regulatory behavior and regulatory penalties, etc., banks can build a "regulatory information station" to adjust the focus of compliance management and formulate better responses to changes in regulatory policies and behavior in a timely manner. Finally, by constructing an evaluation model or algorithm based on factual data, banks can transform risk assessment from a process that consists solely of human judgments to one that features data-based intelligent decision-making.

In one example of industry best practices, one of the big four state banks integrated internal and external data to build five databases for group compliance management—a regulatory rule database, an internal system database, a problem and defect database, a risk event database, and a regulatory penalty database—to standardize and structure underlying information for compliance management within the group. In addition, it developed a centralized compliance labelling system to unify compliance language, and it uses compliance labels to connect data from the databases with specific scenarios in compliance management in order to establish links and trace information. In the process of applying compliance labels, it has explored natural language processing, machine learning and other artificial intelligence technologies to build an intelligent engine for regulatory compliance, process unstructured data, and interpret and label external regulatory rules and internal management systems and add them into the databases. By doing so, the bank analyzed regulatory and compliance information to support the implementation of compliance management activities such as the internalization of external regulations, assignment and tracking of compliance tasks, tracing of problems to their origins and the performance of remedial actions, compliance monitoring and reporting.

The infrastructure layer in the digital transformation of compliance management: data and information systems

At the data level, commercial banks should comprehensively inventory and sort out their internally accumulated data assets and externally available data resources; and collect, clean, map and store source data, while ensuring full coverage and low latency. Furthermore, they should clarify the standards and governance norms for compliance data, and establish a bank-wide data lake or mart so that data asset operations and management can serve as the basis for various compliance management tasks.

At the information system level, commercial banks should establish "one-stop, non-sensing, multi-touch, and fully-integrated" service platforms. By "one-stop" and "non-sensing," we mean customized portals that enable banks to provide one-stop services to users of different levels, permissions and habits; "multi-touch" refers to the platform's ability to reach customers in a variety of ways, including through computers, apps, APIs, components, plug-ins, SMS, WeChat and official accounts. "Fully-integrated" means that underlying data is integrated; and information flows, engines, applications and portals under the Enterprise Information Bus are integrated. An integrated service platform not only reflects a bank's integration capabilities at the technical level but also at the architectural design level. It has a direct bearing on the availability and utility of information systems for compliance management purposes and on user experience.

The core technology layers in the digital transformation of compliance management: algorithms and models

Algorithms and models need to iterate and evolve, and they also need to be continuously innovated to generate results while ensuring compliance. In terms of management, models are needed for AML, fraud prevention, employee behavior management, off-site monitoring, compliance risk management, profiling, and a variety of management activities. These models are designed using similar methods based on similar algorithms for similar purposes but are applied to different management scenarios. Currently, models are generally developed, managed and used separately by different functions and owners. Compliance management should focus on establishing a "model laboratory" to take responsibility for model development, management and innovation on a centralized basis. Models can be classified based on who they are used for, namely employees, institutions, customers, and regulators. They can be flexibly combined, configured and mobilized based on scenarios, and they can be packaged using black boxes to provide services internally.

The underlying application layer in the digital transformation of compliance management: risk monitoring, early warning, forecasting, assessment, and evaluation

Traditional compliance management has displayed weaknesses in risk monitoring, early warning, forecasting, assessment and evaluation. As big data technologies, models and algorithms become more widely used, commercial banks' compliance management functions are becoming more foresighted. They have moved from "comprehensive management" to "targeted actions" and from "judgment calls" to "scientifically supported decision-making." Compliance management is no longer limited to establishing rules and regulations, and more stress is laid on "zero tolerance" for breaches.

Commercial banks should create "three engines" for compliance management based on data and models: a risk identification engine, a risk mitigation engine, and a risk decision-making engine. The identification engine should mainly be used to monitor risks or cases of non-compliance, issue early warnings and alerts, and assign tasks; and the mitigation engine should mainly be used for inspection, verification, problem management, disposal, and rectification purposes. Finally, the decision-making engine should mainly be used to assess risks, evaluate and forecast key risks and regulatory trends, and evaluate the bank's control environment, control activities, and compliance management capabilities.

Commercial banks can use these "three engines" to build a closed-loop compliance management process that focuses on key management issues (i.e. key institutions, key businesses, key areas, key risks, key controls, key positions and personnel), strengthen management effectiveness, improve their ability to identify cases of non-compliance, and predict potential risks, changes in regulatory trends, and possible failures of internal control. In this way, banks can make smart compliance management a reality.

In terms of industry best practices, one joint-stock commercial bank has leveraged technology to build a smart compliance platform based on data concentration and sharing that integrates smart monitoring, smart evaluation, smart review, and smart management. Specifically, the bank has leveraged artificial intelligence, big data analysis and other technologies to collect, process, and integrate internal and external information and data based on specific scenarios; build models, indicators, and review tools; and monitor and issue warnings on institutional risks, employee risks, process risks, money laundering risks and related-party transaction risks on a real-time basis. In short, the bank has established a closed-loop management mechanism for the intelligent identification, evaluation, monitoring and reporting of risks. As a result, it is now able to monitor and evaluate compliance risks in an upfront manner, and intervene more proactively in transactions and institutions that present prominent problems. In addition, the bank has improved its mechanisms for the issuance of warnings on non-compliance, the implementation of remedial actions and the imposition of penalties. Taken as a whole, these actions have significantly enhanced the bank's compliance capabilities.

Conclusion

In the present era, development and change are occurring rapidly, and "technology" seems to both define and disrupt everything. Technology is driving productivity, reshaping production models, and enhancing competitiveness. Commercial banks should follow certain rules in the digital transformation of their compliance management and internal audit, but there is not any one-size-fits-all approach as commercial banks are different in terms of their stages of development and the maturity of their management practices. For this reason, their digital journeys need to be tailored to their development strategies and resources. Going forward, commercial banks should fully embrace management changes and continuously explore their own paths to digitalization.

Authors:

Jessica Xu,
Head of Governance, Risks and Compliance, Financial Services
KPMG China

Eric Chang,
Partner, Governance, Risks and Compliance, Financial Services
KPMG China

2.11 Making the digitalization of microfinance a success

The "Macmillan Gap" has always beset small and micro enterprises (SMEs), and it is now a worldwide problem. The main root causes of this issue are as follows:

- High risks: According to statistics, the average SME survives less than 3 years; this fact, coupled with SMEs' poor ability to withstand risks, has been hindering the development of microfinance for some time. With changes in economic cycles, regional and industrial risks, and the pandemic breaking out in 2020, SMEs around the world have been experiencing a number of difficulties, further highlighting risks for financial institutions.
- High costs: Generally, SMEs are financially weak and lack the necessary assets to improve their creditworthiness. As a result, financial institutions are exposed to high risks when doing business with them. In addition, credible operating and financial information is usually not available for SMEs, resulting in information asymmetry. These factors have significantly increased the costs associated with financial institutions' operations, risk management and capital management.
- Lack of economies of scale: As a result of high costs and low average transaction volume, not many SMEs are fit for financial institutions to do business with. Most long-tail customers are deemed undesirable, so they represent a very limited customer base for financial institutions. As a result, these companies expand their business very slowly and in a controlled manner, making it difficult for them to achieve economies of scale and reach their development targets.

Despite these challenges, deepening financial services for SMEs is undoubtedly an important task in China's effort to promote supply-side structural reforms in the financial industry and enhance the industry's ability to serve the real economy. The China Banking and Insurance Regulatory Commission put forward the three "no-less-than" targets in early 2015. In 2018, it proposed the "two growth rates and two controls" requirement for small and micro loans. In the *Measures for the Performance Evaluations of Commercial Banks* issued by the Ministry of Finance in December 2020, a relatively high weight of 13 points was assigned to the inclusive small and micro loan indicator. In order to support economic transformation and respond to the impact of the pandemic, the central and local governments have also required financial institutions to increase credit support for SMEs.

With falling asset growth rates and SMEs' deteriorating operating conditions, commercial banks are facing an urgent and strategic task. They need to figure out how to ensure inclusiveness in a way that benefits both SMEs and financial institutions, while also keeping risks under control. In addition, they need to grow their micro loan business to support the real economy, and also nurture new drivers of business and profit.

Solutions

As Chinese financial institutions continue to explore technological innovations, they are increasingly using IPC micro loan solutions, credit factories, and data-driven credit technology. Some financial institutions have gained a competitive edge by embracing technologies and applications that match their strategies, implementation paths and resources, and they have contributed to the continuous development of microfinance. As a result, a clearer picture of possible solutions to the micro lending issues that have been presenting problems for countries around the world is now emerging. Within this context, governmental efforts to promote the development of systematic engineering, data technologies and financial technologies have been of fundamental importance.

The Chinese government and regulatory authorities have always encouraged and supported the development of inclusive finance. In recent years, a series of policies have been introduced (including targeted RRR cuts) to exempt SMEs from value-added tax, improve the methods used to evaluate financial institutions' performance in supporting rural revitalization, provide guidance on due diligence and immunities, etc.

The Digital China initiative has delivered solid results in the field of inclusive finance. The digitalization of payment, taxation, government services, and industries has shed light on information asymmetry problems in microfinance. At present, the Chinese government is making every effort to promote the construction of a nation-wide credit data infrastructure system that is designed to integrate all kinds of business data scattered across different institutions, platforms and government departments. This data will be made available to financial institutions to promote the sharing of information about SMEs.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Recently, the country's central bank has stressed the importance of "alternative data," including data covering industrial and commercial registration, taxation, electricity and water consumption, information from the customs and environmental protection authorities, litigation, etc., in assessing the creditworthiness of enterprises, and the need to include alternative data in credit reference supervision. We believe that only when such data is included in the credit reference and supervision system, made available to financial institutions, and used in accordance with laws and regulations and in a way that protects the legal rights of data subjects, can the value of the data be maximized for the purposes of protecting consumer interests and effectively serving SMEs and the real economy.

Despite the related complexities and difficulties, a credit data system will serve as the foundation for financial institutions to develop microfinance business and will ultimately generate handsome results.

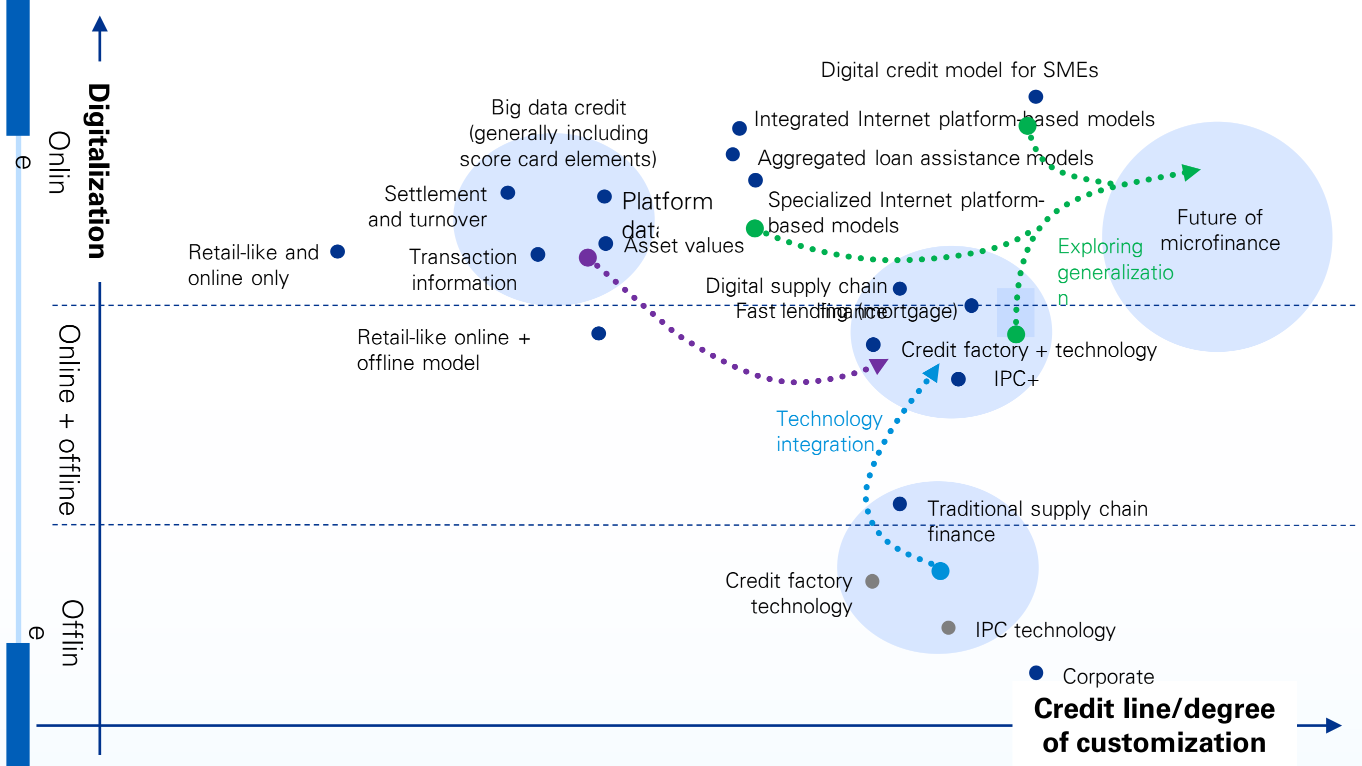
Fintech is also playing an important role in inclusive finance. Micro loan technology integrates big data, artificial intelligence, blockchain, the mobile Internet, the Internet of Things and cloud computing to find solutions to information asymmetries and transform micro lending into a business segment that is inclusive and benefits both SMEs and financial institutions. Technology services companies, including ecosystem-focused ones and those providing credit technology services, have become an important driving force for the digitalization of the microfinance ecosystem.

- A number of credit technology and service providers have emerged in recent years that focus on a single area and/or aggregated areas such as tax data, invoice data, payment and turnover data, and technology enterprise data. Although these companies do not own traffic and data, they do have strong data exploitation and application capabilities, and they are well-positioned to provide data solutions to financial institutions at the enterprise, ecosystem and industry chain levels to empower them to provide financial services for SMEs;
- Ecosystem credit technologies are generally developed by digital industries or during industrial digitalization. In addition to credit technologies, new scenarios and traffic are also being generated. Industrial platforms and ERP cloud platforms are notable examples of such technological developments;
- Technology services companies boast unique strengths. Their core business is to leverage technologies to establish interconnected digital ecosystems and construct digital infrastructure for microfinance, with the goal of empowering financial services. For example, they can develop blockchain-based supply chains and trade financing platforms, and use satellite remote sensing data and integrated digital technologies to build new digital infrastructure in rural areas to empower microfinance business.

Exploration and evolution in digitalisation

Driven by digital innovations and technological advances, financial institutions are accelerating their digital transformation, and microfinance is one of their top priorities. In this section, we focus on the progress that is being made in digitalization in two areas: credit technology and customer marketing.

Digitalization of microfinance credit technologies



Note: The credit line is a conceptual comparison of credit lines granted to a customer based on different technologies.

Exploration

Industry insiders generally believe that no all-purpose microfinance business model is currently available for financial institutions to learn from. Therefore, financial institutions have taken different paths in their explorations, such as the IPC model based on cross-validations (it focuses on the borrower's personal qualities (credibility) and product (market relevance) and the protection offered (collateral), and uses alternative data, including utility and customs data), the "standardized, batch-based and process-oriented" credit factory model, the big data model, the credit enhancement-based micro credit model, etc.

The IPC model can be understood as "trusted edge computing." Under this model, most of the work is performed on the terminal end that is closest to the customer. The IPC model focuses on gaining an in-depth understanding of customers and solving information asymmetry problems. At the same time, it is community grid-based, which means it further divides a community into several units and assigns a relationship manager to each unit for business development. Therefore, it affects the breadth of customer acquisition.

Under the IPC model, a small team works independently, and the team members collaborate with each other. Team members must be able to execute tasks in the same way that "special forces" do, and they must establish a mechanism to ensure the integrity and reliability of each "node." However, the team should grow and expand very slowly, and it may take a long time to develop economies of scale. In addition, this model requires intensive efforts for it to succeed. It works best in regions where there is a good business climate for SMEs. Financial institutions located in areas that lack the necessary resources are unlikely to achieve good results.

The credit factory model can be understood as a "middle office" model under which the middle office has strong standardization capabilities that empower and provide robust support for the front office. It is replicable and generates economies of scale, and business growth under this model is usually not limited by front-line teams' capabilities. Compared with the IPC model, the credit factory model emphasizes the breadth of customer acquisition instead of the depth of customers' needs for customized services. It thrives on standardized offerings and is a good choice for big institutions with large customer flows and a wide network of outlets.

Against the backdrop of increasing data assets in recent years, the big data model has emerged and seen rapid development. With the credit reference system steadily improving, many innovative products and services have been developed during the digitalization of payment, taxation and government services, including products co-developed by banks and tax authorities, invoice loans, turnover loans, salary loans, and mortgage loans. Credit products have also been derived from the digitalization of asset values, such as collateral loans based on customers' financial assets. Technology companies and fintech companies (including fintech arms) are also important players that have leveraged digital industries and industrial digitalization to develop digital financial services for SMEs.

The big data model is essentially a digital version of the credit factory model. It relies on a digitalized middle office to empower financial services, significantly improve the level of automation of online processes, and even fully automate some business areas. This model also highlights the breadth of customer acquisition and provides standardized products. Multi-dimensional data is used to develop microfinance offerings for a wide range of scenarios to better meet SMEs' diverse needs. Using this model, technology companies that have strong innovation capabilities and the ability to swiftly complete digital transformation and launch special data-driven credit products are generally able to quickly attract attention from market participants, achieve economies of scale and generate economic value.

Evolution

The three models mentioned above do not evolve in isolation, but complement each other in terms of integrating technologies and exploring generalization.

Technology integration

For example, in respect of IPC technology, leading banks continue to spend heavily in upgrading their technologies, with the goal of continuously reducing costs and increasing efficiency. Recently, Tailong Bank released the first set of microfinance service standards in China. According to the standards, the bank will "adopt a fintech-enabled business model to leverage emerging financial technologies and improve the mobility, modelling, and convenience of microfinance services". In addition, it will "adopt a two-pronged approach that attaches equal importance to online data analysis to reduce costs, improve efficiency, and enhance customer experience, and to proactively delivering services offline to improve access, effectively control risks, and ensure a human touch to our services." Another of Tailong's standards stresses the role of "a large middle office that focuses equally on service and supervision" in microfinance. Meanwhile, Tailong is using credit factory centers to effectively "reduce costs, provide support, carry out supervision and reviews, and enhance service experience." [16]

Regarding the credit factory and big data models, as microfinance services are increasingly digitalized, digital technologies are being widely used in invoices, turnover, taxation, water and electricity, and ERP; and a huge amount of multi-dimensional data has been accumulated. On this basis, financial institutions have been developing their multi-dimensional data cross-validation and analysis capabilities. As they innovate their investigation methods, which focus on the borrower's integrity, products and collateral, they are developing solutions for these models, and they are applying and developing its implementation systems on an ongoing basis.

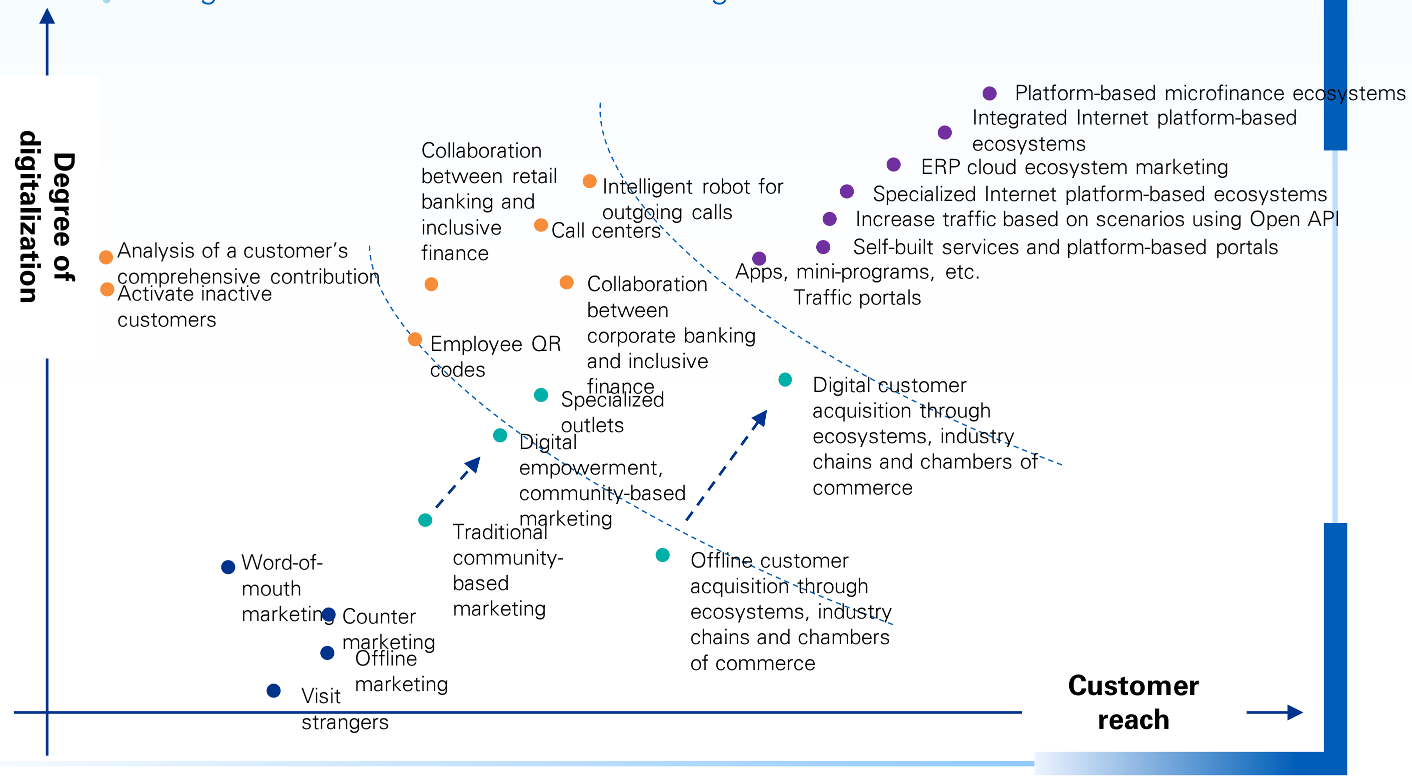
Exploration of generalization

In December 2020, at a meeting on promoting the integration of credit reference systems across the Yangtze River Delta, the central bank said that financial institutions can use the lessons that have been gained from the Suzhou Pilot Zone for Digital SME Credit References and the Yangtze River Delta Credit Reference Chain to develop scenarios for the application of alternative data in order to more effectively provide financing for MSMEs. At present, the value of big data in various microfinance models has been fully proven, and digitization has become a common element of microfinance services. Financial institutions adopting different models are going digital, moving their services online and integrating online and offline processes.

Just as scientists have developed their grand theories of physics, the financial industry has been actively exploring general models for microfinance. If they succeed, financial institutions will be able to make significant improvements to their customized service offerings. Although they may not be able to steer totally clear of high-risk and short-lived SMEs, it is undeniable that with general models, financial institutions can depend less on collateral when providing microfinance services, which will ultimately benefit SMEs. In the future, the development and increasing digitalization of credit data infrastructure will help financial institutions explore and develop general models for microfinance services.

16 Quotes related to Tailong Bank's practices were obtained from its Microfinance Service Standards. We also consulted the following articles published on the bank's WeChat account: *A Technology System that Focuses on Support and Collaboration and A Comprehensive and Effective Risk Control System.*

Digitalization of microfinance marketing



As small as they are, SMEs are still organizations, and they need comprehensive financial services. They value the comprehensiveness and convenience of services as well as customer experience. Therefore, merely granting them a loan will not convert them into a customer, let alone a loyal customer. With the development of microfinance technology, models can be more widely replicated. As they serve a wider range of customers, financial institutions are attaching increasing importance to the digital transformation of microfinance marketing to strengthen their ability to acquire and retain customers and enhance customer loyalty.

First, they are using data to develop insights into customers and products, recommend the right financial products at the right time and through the right channels, and shift away from product-centric marketing to customer-centric digital marketing (especially when making recommendations).

Financial institutions need to attach importance to internal collaboration when digitalizing microfinance marketing, and they should leverage integrated mining of internal and external data to support the identification of microfinance customers and empower marketing. For example, the retail banking department and the microfinance department can work together to conduct integrated microfinance marketing in order to explore the potential associated with business owners and individual borrowers of business loans. In addition, the corporate banking department and the microfinance department can work together to make a white-list for customer acquisition and develop focused marketing plans based on business networks and customer response models.

Second, financial institutions are using digital and technological means to enhance the effectiveness of traditional marketing. For example, mobile devices are being used to support business development, giving customers immediate access to loans without the need to pay multiple visits to an outlet. This change has improved marketing success rates and customer experience and loyalty. Meanwhile, some financial institutions are actively exploring the potential of supply chain finance based on block chain technology and core enterprises in order to expand their reach.

With increased reach, financial institutions need to focus on improving relationship managers' marketing capabilities. KPMG recently launched an intelligent application that allows relationship managers to practice their marketing skills. It uses technological means to improve marketing effectiveness, and it has generated good results for market participants.

Chart: KPMG's scenario-based intelligent partner training solutions

Created by a professional consulting team, this tool integrates a variety of business scenarios. By using this solution, banks can more efficiently improve their employees' marketing capabilities, and offer comprehensive training for employees so that they can master standardized marketing and business skills.

01 **One-to-one capability enhancement**
Each employee can practice their skills with a robot. This is more effective than using a one-to-many approach

02 **Immediately available**
Available on PCs, apps and more so that employees can practice their skills any time, anywhere

03 **Condensed**
The script is based on the experience of successful employees and provides focused coaching on practical skills

04 **Adaptable**
It simulates real business scenarios so that employees can develop practical onboarding skills. In addition, it is granular and can be adapted to various scenarios

Third and most importantly, financial institutions are moving channels online or integrating online and offline channels to digitalize and embed financial services, with the ultimate goal of ensuring their immediate availability and accessibility. Today, physical outlets are playing a less prominent role. As financial institutions actively transform their outlets, they are attaching more importance to online channels. Driven by open banking and financial technology, financial institutions are constantly experimenting and trying to construct online microfinance channels in new ways.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Online channels are built at three levels: online outlets, application scenarios and ecosystem platforms.

- Online outlets are exclusive or non-exclusive microfinance apps and mini-programs. As services are moved online or made available both online and offline, these online portals are playing an important role.
- In terms of application scenarios, financial institutions are using application programing interfaces (APIs) and other technologies to embed microfinance services in corresponding scenarios in ecosystem platforms, such as credit scenarios in ERP cloud ecosystems. In addition, leading financial institutions are using financial technology to provide SMEs with "housekeeping" services, including those related to purchasing, inventory, sales, financial management, and aggregate payment, to proactively attract traffic and tap into these scenarios.
- In terms of portals to ecosystem platforms, Internet platforms, fintech companies and financial institutions have made considerable progress as SMEs operate in various industries, and differently endowed institutions and regions have different opportunities. Under the new "dual circulation" development model, the domestic and international markets both present opportunities for various institutions.

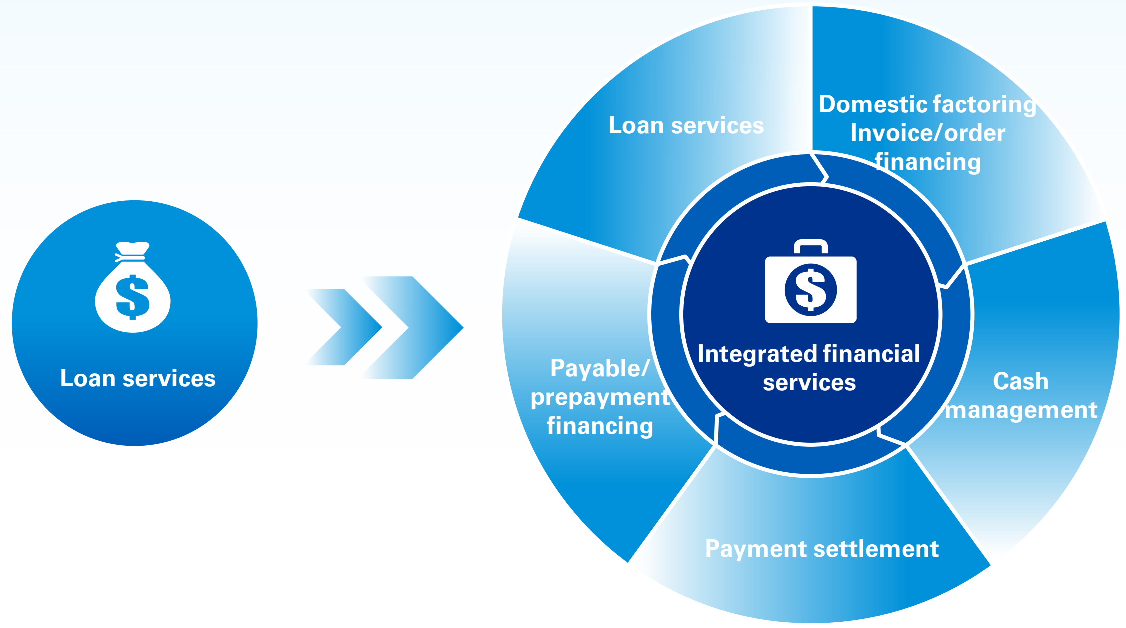
At present, financial institutions are actively promoting digital transformation, developing digital financial service capabilities, and using APIs and other technologies to embed financial services into third-party ecosystems. At the same time, they are also using their own resources to identify business opportunities, and they are using financial technology to build their own ecosystem platforms, such as e-commerce platforms and financial apps that integrate lifestyle services. Financial technology companies affiliated with banks are collaborating with external parties to develop digital ecosystem platforms that empower their parents' financial business, and many small and medium-sized financial institutions are applying financial technology to build industry platforms in partnership with local special industries/enterprises and identify digital financial service opportunities along the industry chain.

Four ways for banks to make breakthroughs in the transformation of microfinance services

In order to develop microfinance services, it is no longer enough to adopt a certain type of microfinance technology or launch one or two online microfinance products. In recent years, microfinance services have become more of a reflection of a financial institution's comprehensive capabilities, and the services tend to be digital, online-based (or online + offline) and intelligent.

Leading financial institutions are widening their lead and shaping the future of microfinance. Against this backdrop, industry players that are in the habit of following in others' footsteps will find that their strategies fail completely due to how high the industry's standards and thresholds have risen. As microfinance services move online and become more scenario and ecosystem-based, regional institutions are seeing their geographical advantages wane. Followers need to lay a solid foundation and build capabilities in line with their own development needs. If they do not, their gap with industry leaders will continue to widen until it becomes unbridgeable and leaves them no room in the market.

In the face of these challenges in the microfinance sector, what should commercial banks do to catch up with industry leaders and make breakthroughs in terms of growth, risk control, cost efficiency, customer base, and other areas? We recommend that banks find solutions through integrated financial services, digital transformation, financial technology, and business collaboration, and we also recommend that they rethink their microfinance strategies.



Enhance operating income through integrated financial services

In the past, banks' SME services mainly consisted of lending for the interest margins, and this was their only source of income from SMEs. However, SMEs also need a wide range of financial services, from payment and settlement to cash management. If banks can transform their way of doing business with SMEs and provide SME customers with diversified and integrated financial services, they can deliver benefits for SMEs while also enhancing risk control.

Upgrade risk management using digital technologies

A risk control model that relies too much on offline investigations and expert experience will not work well for SME business. In order to effectively exercise risk control in this sector, financial institutions need to accumulate and apply multi-dimensional data to build a reliable, efficient and automated risk control system that is SME-oriented. Recently, the central bank stressed the importance of "alternative data," including data covering industrial and commercial registration, taxation, electricity and water consumption, information from the customs and environmental protection authorities, employment, penalties, litigation, etc., in assessing the creditworthiness of enterprises. In addition, banks can digitalize their risk control models due to the fact that SMEs complete their transactions electronically on various platforms.

Leverage fintech to decrease costs and enhance efficiency

The large number of SME customers who usually borrow a small amount of money for a short period per transaction results in high service costs for banks. For this reason, operational efficiency has increasingly become banks' core competitiveness in doing business with SMEs. Going forward, banks need to leverage fintech to move more of their SME operations online so that they can operate in a batch-based, automated and intelligent manner and continuously reduce service costs.

Enhance internal collaboration to generate more value

SMEs have more to offer banks than just the opportunity to lend out small amounts of money. SMEs usually have good growth potential and are an important basic customer group for banks, and they bear the characteristics of both retail and corporate customers. Hence, these customers present banks with significant cross-selling opportunities. Going forward, banks can enhance internal collaboration to identify high-net-worth customers for private banking and payroll customers for retail banking, and cultivate promising medium-sized customers for their corporate banking lines.

At the same time, institutions still need to design microfinance strategies and implementation paths that are in line with their own needs, taking into account their own resources, strategies, opportunities for internal and external collaboration, progress in digitalization, available human resources, business philosophy and management situation.

Acknowledgement: Special thanks to Tailong Bank for its support in the preparation of this article.

Author:

Chris Wang,
Head of Regulation and Risk
Control Technology Consulting,
Financial Services
KPMG China

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

2.12 Data governance empowers "risk-based" AML management

China's AML regulatory landscape is changing fast. A shift away from "rule-based" regulation to "risk-based" regulation can be clearly observed in the newly issued AML regulations and in the way regulatory inspections are being carried out this year. Higher requirements have been imposed on financial institutions to implement a "risk-based" long-term AML management mechanism.

"Risk-based" monitoring and management relies on comprehensive identification and analysis of risks. However, as AML management involves complex business scenarios and a wide range of scattered data (including a large amount of historical data), it is by no means easy to implement measures to collect this data. In addition, in the era of digital identities, both the public and private sectors are actively exploring ways to leverage technology to improve the effectiveness of AML management. For example, the Financial Action Task Force (FATF) encourages the application of technologies in digital onboarding and simplified due diligence. It recently issued guidelines on digital identities, with a focus on how to use trusted digital identities to remotely identify customers in onboarding and transactions. In addition, global financial institutions have been exploring how to use machine learning to improve the effectiveness of suspicious-transaction monitoring. However, financial institutions need high-quality data in order to fully and effectively leverage these technologies.

In response to this issue, more and more banks are using bank-wide AML and data governance frameworks to carry out AML-focused data governance based on AML data requirements, with the goal of enhancing the effectiveness of AML management at the data-source level. In this regard, KPMG has put forward the following five steps to help banks more effectively promote and implement AML data governance:

1. Conduct stock-taking to develop an overview of the bank's AML-related data

A large amount of data is generated by financial institutions in their business, operation and management activities. In order to more effectively promote AML data governance, the first step is to clarify the scope of relevant data items and the relevant data requirements. Banks can prepare a list of key AML data items based on relevant regulatory documents and requirements, lessons from peers, and issues highlighted in regulatory inspections over the years. In addition, banks should identify the sources of the data from the reporting end. By doing so, banks can gain an understanding of their AML governance and determine what AML data they have and where to find such data. Afterwards, they can take more targeted actions.

2. Ensure compliance and formulate clear requirements

With regard to the AML data items that have been sorted out, banks should establish and improve AML data standards and specifications in accordance with existing data standards and frameworks, taking into consideration AML regulatory requirements, the urgency of compliance and actual business conditions. For example, based on KPMG's experience in AML compliance auditing and advisory, the firm has developed more than 2,000 detailed data specification verification requirements in accordance with the *Data Interface Specifications for Anti-money Laundering Inspections of Banking Financial Institutions (for Trial Implementation)* and the *Data Interface Specifications for Anti-money Laundering Inspections of Securities Institutions (for Trial Implementation)*. These requirements, which are consolidated and continuously updated based on our professional experience, can help banks verify AML data from multiple dimensions, such as completeness, consistency, accuracy and compliance. In this way, banks can clarify data specification requirements, determine the levels at which data specifications should be applied, and define management responsibilities based on existing data standard management frameworks.

3. Adopt a step-by-step approach that focuses on quality

Data quality is key. Based on AML work, banks can quickly mobilize resources to solve issues that impact a wide range of areas, those that urgently need to be remedied and those that present a high money laundering risk. In this way, banks can minimize the impact on customers and businesses and showcase the results of AML data governance. However, when analyzing and addressing AML data quality issues, full consideration should be given to the establishment of an effective remedial action plan. Of course, actions should be taken to remedy historical problems, but banks should also use business specifications and technical support to prevent future problems and effectively solve quality issues. Since data quality issues may involve a wide range of areas, it takes time to transform business specifications and systems. Therefore, when taking remedial actions, banks should adopt a step-by-step approach that aligns with their business and technology development plans.

4. Apply data governance throughout business activities

The primary goals of AML data governance are to meet the data requirements for regulatory reporting, meet banks' needs in AML management activities, and empower their other activities. Therefore, based on the AML management framework, banks should apply data in AML scenarios to continuously improve AML data governance, and more effectively make use of the results of governance efforts. In this way, they can drive the iterative optimization of governance-related work.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

(1) Map data items and AML scenarios to create component-like data sets

Data items are often related. Only when they are integrated can they be made useful and acceptable to business and technical departments. Therefore, in terms of the hierarchy of AML data standards/specifications, in addition to those based on data warehouse topics and business types, banks should also consider using AML scenario tags to map the relationships between scenarios and data items in order to facilitate scenario-based data governance and address shortcomings due to separated data items.

For example, data items can be matched with AML scenarios based on AML governance requirements to establish scenarios including money laundering risk assessment, customer due diligence, transaction monitoring, and list screening, and to create a data list for each scenario.

These scenarios assist business departments in understanding notable data items and relevant requirements so that they can better implement them, but it is important to note that the effectiveness of data is closely related to the scenario. If data is considered but the substance of the business is not, the standards for data quality will not be reliable.

(2) Integrate AML scenarios and business scenarios

Banks can gradually integrate data items, AML scenarios and business scenarios in order to sort out the AML data and requirements involved in business scenarios and ensure the quality of data at the source. Business departments should understand the AML scenarios involved in existing business activities and implement data requirements in the course of business management and operations; at the same time, they should also define the responsibilities for money laundering risk management at the business line level, and embed the relevant requirements in business activities.

5. Rely on mechanisms to ensure long-term effectiveness

To effectively perform their AML responsibilities, banks need to establish a long-term AML data governance mechanism. To this end, AML-related regulatory policies, business lines' responsibilities, and owners' responsibilities should be fully communicated to raise awareness among employees. In addition, banks should effectively integrate AML data governance with business marketing, strengthen the correlation between money laundering risk management and business development, and ensure that everyone plays their role in data governance and takes their AML responsibilities seriously.

Furthermore, banks should strengthen the assessment of money laundering risk management, effectively monitor the results of AML data governance, and include the results in assessments and evaluations to ensure that money laundering risks are effectively controlled on an ongoing basis. In addition, banks should promote the implementation of regulatory requirements on money laundering risk management.

In summary, financial institutions should effectively apply the above-mentioned five AML data governance tools, adopt a top-down approach to data governance, gradually shift from thematic governance that focuses on solving compliance issues to a long-term mechanism, and implement and optimize AML data governance on an ongoing basis.

Authors:

Cathy Zhou
Partner, AML and Sanctions Regulatory Compliance,
Financial Services
KPMG China

Felix Chen
Head of Data Governance Consulting,
Financial Services
KPMG China

Echo Wang
Director, Data Governance,
Financial Services
KPMG China

2.13 Focusing on climate change and responding to climate and environmental challenges

1. International background

In recent years, the international community has reached a consensus on the environmental risks faced by commercial banks. Businesses' discharges and consumption of natural resources during production and business activities have been impacting the environment in ways that are not sustainable, and as a result the environment has been deteriorating. Governments, the public, and non-governmental organizations have been increasingly requiring businesses to improve their environmental track records. Against this backdrop, businesses are facing increasing environmental costs and increased environmental and social risks, which in turn will bring risks to commercial banks and other financial institutions as lenders. These risks include the risk of companies failing to repay their loans due to rising environmental costs; the risk of banks assuming joint and several liability for pollution; legal risks arising from third-party claims for damages; reputational risks and the risk of market share loss resulting from failure to adapt to new environmental requirements, etc.

Financial regulators in offshore markets have been taking concerted actions and have issued regulatory policies to urge banks to act more quickly to manage climate and environmental risks. In 2020, the European Securities and Markets Authority (ESMA) issued the Sustainable Finance Strategy to encourage financial institutions to manage financial risks caused by climate change; in the same year, the European Central Bank and the national authorities of EU member states drafted the Guidelines for Climate and Environmental Risks to provide banking institutions with a forward-looking and systematic approach to managing climate and environmental risks. In 2019, the Bank of England issued a discussion paper on climate stress testing to assess the impact of climate change on banking from the perspective of credit and market risks; and France's central bank announced a voluntary stress test plan in 2020 and planned to announce the results in April 2021. The Monetary Authority of Singapore issued a consultation paper on environmental risk management guidelines for banks in June 2020, encouraging banks to improve their ability to conduct climate risk scenario analysis and stress testing. In June 2020, the Hong Kong Monetary Authority published the White Paper on Green and Sustainable Banking, which explored how the banking industry should respond to climate change in the future, with a focus on related risk management. In order to assess risks more accurately, the Hong Kong Monetary Authority has invited a number of banks, including six large domestic systemically important banks (D-SIBs) (i.e. Industrial and Commercial Bank of China (Asia) Co., Ltd. (ICBC Asia), Hang Seng Bank Co., Ltd., the Bank of East Asia Limited, Standard Chartered Bank (Hong Kong) Limited, Bank of China (Hong Kong) Limited, and the Hong Kong and Shanghai Banking Corporation Limited), to perform the first local Climate Risk Stress Test (CRST) starting from the first quarter of 2021.

2. Mainland China regulators are vigorously promoting green finance to enhance banks' climate risk management capabilities

In September 2020 at the United Nations General Assembly, President Xi Jinping announced, "China will increase its contributions at the national level and adopt more effective policies and measures to strive to reach peak carbon dioxide emissions by 2030 and become carbon neutral by 2060." In line with this national strategy, a corresponding green finance plan has been proposed for China's financial industry. In early 2021, the People's Bank of China announced that more resources will be allocated to track and analyze the potential impact of environmental and climate risks on financial stability, and improve the sector's capability to analyze and manage environmental and climate risks. At the same time, the central bank will actively explore the feasibility of including climate risk into China's regulatory framework, with a focus on monetary policy and macro-prudential policy, and explore ways to adjust the framework. Within this context, commercial banks need to develop tools to manage their climate strategies and credit climate footprint, and incorporate climate risks into their overall credit risk assessments to accelerate their transition to green banking and align with the government's carbon neutrality goals. In addition, commercial banks need to adopt new technologies and methods to innovate their policies, systems and management practices to differentiate themselves and gain an edge over their competitors.

Based on the regulators' plans, the top-level design for green finance includes three functions: resource allocation, risk management, and market pricing; and five pillars: standards and systems, regulatory and information disclosure requirements, incentive and restraint mechanisms, product and market systems, and international cooperation. Commercial banks need to build on this design and make the right changes to build a green finance system and improve their approaches to, and their systems, processes and tools for, climate risk management.

Disclosing green finance-related information is an important part of commercial banks' response to regulatory requirements and their performance of social responsibilities. In the 1990s, international organizations were already calling on financial institutions to incorporate environmental, social and governance factors (ESG) into relevant information disclosures, with the goal of establishing a green financial market that is transparent, open and fair. As sustainability is understood more deeply, ESG information disclosure requirements have become increasingly stringent, and we expect that this will be a growing global trend. Financial institutions will be required to disclose certain important green finance indicators, such as their carbon footprint (carbon emissions for every RMB 10,000 lent), green loan index, green rating, green finance index, etc. Going forward, commercial banks need to prepare for these requirements and establish an effective system for information disclosures and evaluations of green finance.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

system for information disclosures and evaluations of green finance.

An incentive and restraint mechanism is also an important part of a green finance system. Currently, possible measures in this regard include re-lending for low-carbon industries, green asset mortgages, discounting risk weights for green loans, etc. In particular, discounting risk weights may become a viable incentive for green finance, and this practice is likely to be adopted widely in the financial industry. Analysts have estimated that this incentive will cover green financial assets worth more than RMB 10 trillion, which is equivalent to a 0.25% loan interest discount. China is well-positioned to adjust risk weights for green loans. In order to control risks, some experts have recommended that banks first implement this measure on a small scale in a national green finance reform pilot zone, and then implement it within a certain scope of business activities, before extending it gradually. China's financial institutions need to keep abreast of relevant regulatory requirements and actively respond to the green finance incentives that will be implemented in the future.

3. Climate and environmental risks will become an important part of banks' risk management

As climate and environmental risks are different from traditional financial risks, forward-looking scenario analysis and stress testing have become the main tools for assessing climate and environmental risks. However, as these risks are systemic and complex, the financial industry is still exploring and developing relevant theories and practices. Only a very small number of commercial banks in China have carried out climate and environmental risk stress tests, and most financial institutions still have not gained a sufficient understanding of the relevant methods.

Although major global banks have been studying the impact of environmental risks on their own business development in recent years, relatively few studies have been carried out that use stress testing methods to quantitatively evaluate environmental risks.

In 2018, the United Nations Environment Program Finance Initiative (UNEP FI) launched a working group of 16 Banks[17] to develop a methodology for the separate analysis of the transitional risks and physical risks associated with climate risk. In terms of transitional risks, under the methodology, the working group first selected climate scenarios and generated industry-level risk transmission paths; second, it identified risk drivers specific to industry segments and determined the sensitivity of the selected industries to transitional risks based on experts' assessments. Calibration was then performed at the borrower level based on variables from scenario models. In terms of physical risks, the working group studied the agriculture, energy and real estate industries. Specifically, the group studied the impact of physical risks on productivity and property values in these sectors in order to establish a stress transmission mechanism. Using this mechanism, banks were able to re-rate their customers based on the customers' financial statements after taking into account the relevant stresses.

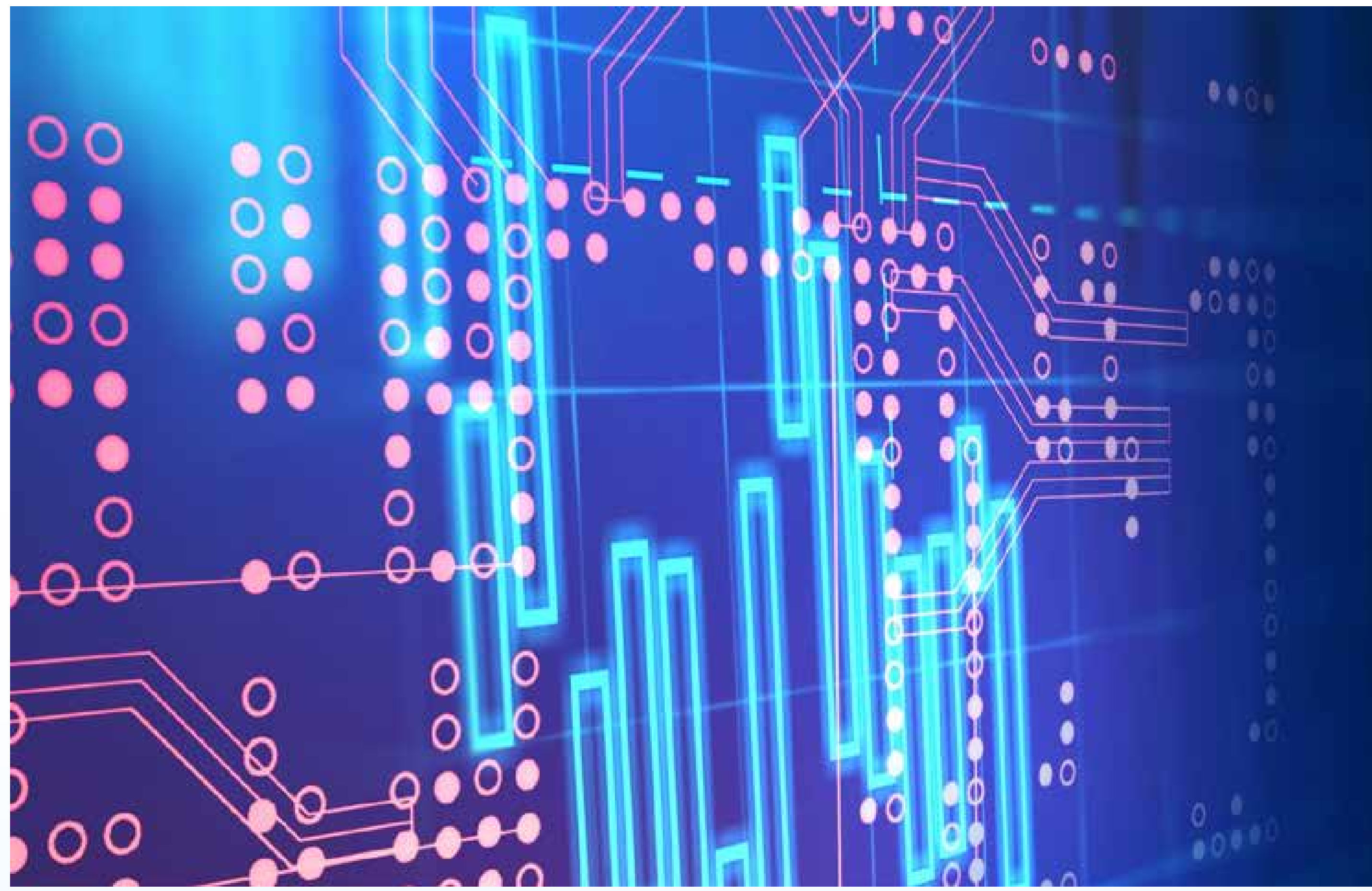
In 2019, DBS Bank adopted the framework recommended by the Task Force on Climate-related Financial Disclosures (TCFD) and established three climate scenarios (high carbon prices, medium carbon prices, and low carbon prices) for transitional risks and three climate change assumptions (strong, medium and low) for physical risks [18] The analysis results showed that a large number of credit customers will be downgraded due to rising carbon prices, and DBS Bank's existing credit business in Southeast Asia may be severely impacted by climate disasters (especially heat waves).

17 ANZ Bank, Barclays, BBVA, BNP Paribas, Bradesco, Citibank, De Nederlandsche Bank, ItaúUnibanco, National Australia Bank, Rabobank, Royal Bank of Canada, Banco Santander, Societe Generale, Standard Chartered, TD Bank Group and UBS Group (https://www.unepfi.org/news/industries/banking/tcfd-recommendations/)

18 DBS Group Holdings Limited Sustainability Report 2019 (https://www.dbs.com/iwov-resources/images/sustainability/reporting/pdf/DBS%20Sustainability%20Report%202019%2020200306.pdf?pid=sg-group-pweb-sustainability-pdf-dbs-sustainability-report-2019)

In 2019, BNP Paribas conducted a physical risk assessment on important credit customers based on the requirements of the Paris Accords and the TCFD framework. It assigned ratings ranging from 0-100 to credit customers based on operational risk, supply chain risk and market risk, and quantitatively evaluated the sensitivity of different industries to the impact of climate risk taking into account industry and regional characteristics. [19]

On 11 September 2020, the Central Banks and Supervisors Network for Greening the Financial System (NGFS) released two important documents on environmental risk analysis: the *Overview of Environmental Risk Analysis by Financial Institutions and the Case Studies of Environmental Risk Analysis Methodologies*.[20] The NGFS called on regulators, financial institutions, international organizations, third-party suppliers and academic institutions to work together to promote the application of Environmental Risk Analysis (ERA) in the financial industry in order to effectively address environmental and climate-related risks. The *Overview of Environmental Risk Analysis by Financial Institutions* discusses a large number of environmental risk cases that are evolving into financial risks, and also describes the environmental risk analysis tools and methods commonly used by banks, asset managers and insurers. The report also touches on challenges that are arising in the promotion of environmental risk analysis and ways to overcome them. The *Case Studies of Environmental Risk Analysis Methodologies* describes in detail various methodologies, modelling tools and application cases that have been developed for environmental risk analysis by more than 30 leading financial institutions, academic institutions and third-party service organizations.



17 BNP Paribas 2019 TCFD Report (https://group.bnpparibas/uploads/file/bnpparibas_tcfd_report_en.pdf)

20 Overview of Environmental Risk Analysis by Financial Institutions: (https://www.ngfs.net/sites/default/files/medias/documents/overview_of_environmental_risk_analysis_by_financial_institutions.pdf)

Case Studies of Environmental Risk Analysis Methodologies: (https://www.ngfs.net/sites/default/files/medias/documents/case_studies_of_environmental_risk_analysis_methodologies.pdf)

4. Accelerating the development of commercial banks' climate risk management capabilities

As banks are taking their first steps in climate and environmental risk assessment, their models and methods are not yet mature. Considering the changes in the international regulatory environment, environmental risk stress testing is expected to be included in regulatory requirements in the near future. Financial institutions with limited resources can adopt a step-by-step approach to environmental risk stress testing management and proactively drive change. Specifically, they can take actions from the following aspects:

Enhance awareness and capacity building:

Understand the regulatory requirements of different countries, perform benchmarking and make preparations in advance; raise awareness, keep abreast of regulatory trends, and be prepared for regulatory requirements that may arise at any time; learn from others and published papers and cases, explore and develop models and tools, and improve their own ability to respond to emerging risks; strengthen capacity building, improve employees' understanding and awareness of new risks, and develop management professionals and experts.

Solutions:

Summarize and share experience in a timely manner; play an active part in the design and development of China's environmental and climate programs; propose methods to identify, quantify, monitor and manage physical risks and transitional risks; develop climate risk analysis methods that are adapted to China's banking industry and carry out corresponding climate risk stress tests (CRSTs); select high-risk industries that account for a large proportion of loans for tentative evaluations based on credit portfolios; rely on climate and environmental experts' and industry experts' experience and judgment to identify key risk factors and indicators, define risk transmission paths, and quantify financial impacts.

Improve data and systems:

Climate and environmental risks are a relatively new type of risk. The assessment process for these risks may involve underlying data on customers' carbon emissions, geographic locations, and other factors. However, banks do not routinely collect such information, and risk identification and management has become more difficult due to the lack of data. We recommend that banks collect such data using a variety of methods, including establishing a centralized database that covers various climate-related topics, establishing a library of climate risk scenarios, and collecting relevant data through surveys and questionnaires. Banks can then use this data to comprehensively assess customers' exposures to physical and transitional risks and their resilience. At the same time, banks can build a scientific and effective data management system to manage related data and serve as a basis for environmental and climate risk stress testing.

To apply climate risk stress testing models, financial institutions are still facing many obstacles, such as a lack of understanding of climate and environmental risks and how they correlate, insufficient data on losses resulting from such risks, limited capabilities to develop climate and environmental risk assessment methods, limitations associated with assessment methods and data quality, etc. However, in view of the urgency of climate risk management, we recommend that commercial banks adopt a "learn by doing" approach, actively conduct climate and environmental risk scenario analysis and stress testing, and improve risk modelling methods and data quality on an ongoing basis in order to provide forward-looking and insightful guidance and drive the long-term sustainability of their businesses.

Authors:

Jin Cao,
Head of Financial Risk Management Consulting
KPMG China

Kevin Kang,
Chief Economist
KPMG China

2.14 Tax solutions for the banking industry in the post-pandemic era

2021 marks the beginning of China's 14th Five-Year Plan period. In the aftermath of the COVID-19 pandemic and in the face of the complex domestic and foreign environments, the country's financial stability and economic development have continued to draw great attention from around the world. During the 14th Five-Year Plan period, taxation highlights will include improving the modern tax system, optimizing the local tax system and direct tax system, fine-tuning the taxation structure, appropriately increasing the proportion of direct taxes, and deepening tax collection and administration reform.

In this historic period, banks are paying special attention to a number of different tax issues.

Tax issues drawing banks' attention

Since the outbreak of the pandemic, China has taken multiple measures to encourage banks and other financial institutions to step up financial aid to sectors that are engaged in pandemic prevention and control; seriously affected regions, industries, and enterprises; and social sectors and sectors that are important to people's livelihood. This financial aid has taken multiple forms, including providing fiscal subsidies, lowering deposit reserve ratios and interest rates, reducing fees, and allowing small and micro enterprises (SMEs) to delay repayment of loans and interest. The banking industry has actively responded by donating funds and supplies, while also capitalizing on its strengths to upgrade and adjust related services, increase service efficiency, lower service costs, and optimize service arrangements for enterprises.

The major tax issues arising from the banking industry's pandemic prevention and control activities include the following:

- Banks have extended loan maturities for enterprises that are experiencing temporary difficulties due to the pandemic. However, their accrued interest is still subject to the Notice of the Ministry of Finance and the State Administration of Taxation on the Full Launch of the Pilot Scheme for Levying Value-added Tax in Place of Business Tax (Cai Shui [2016] No. 36), which requires that value-added tax be paid on accrued interest within 90 days after the interest settlement date.

- The service charges and loan interest that banks have exempted from various businesses may be treated as trade discounts to reduce the sales revenue subject to the value-added tax assessment. At present, it is unclear whether the exemptions granted during the pandemic period can be regarded as free-of-charge public welfare services or social services. Therefore, value-added tax should be assessed based on the actual situation, and it should be viewed as a sales risk.

- Fiscal interest subsidies for loans to key enterprises that are engaged in pandemic prevention and control as well as secured start-up loans to affected individuals and enterprises are subject to the provisions in the Announcement of the *State Administration of Taxation on Issues Relating to the Administration of the Levying of VAT*, including the *Cancellation of the Authentication and Confirmation Deadline for Deduction Vouchers for VAT (Announcement of the State Administration of Taxation [2019] No. 45)* and other related policies. Value-added tax will only be applied to these subsidies if they are directly linked to loan services.

- If a debtor affected by the pandemic repays its debt using non-monetary assets, it should consider the tax impact arising from the transfer of the goods and real estate that are provided as compensation. The bank should determine how to obtain invoices for such assets and how much value-added tax will be levied on the interest that is recovered.

- In cases where a debtor and guarantor continue as a going concern, loan investment losses resulting from insolvency due to the pandemic do not qualify for the value-added tax exemption according to the *Announcement of the State Administration of Taxation on the Promulgation of Administrative Measures for the Pre-income-tax Deduction of Asset Losses of Enterprises (Announcement of the State Administration of Taxation [2011] No. 25)* and other related policies.

Tax considerations during the consolidation of small and medium-sized banks

The COVID-19 pandemic has exacerbated the economic downturn and worsened the balance sheets and operating conditions of some small and medium-sized banks. Within this context, these banks have accelerated consolidation, and news reports about their mergers and restructurings have been frequent. Mergers and restructurings of small and medium-sized banks, especially small and medium-sized regional banks, will help accelerate the disposal of non-performing assets, optimize asset utilization, enhance risk capabilities, integrate regional resources in support of the local economy, fine-tune the regional credit market, and reduce regional peer competition, while also providing an opportunity for regional urban and rural commercial banks to strengthen their positions.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

It should be noted that the transfer of assets during such mergers and restructurings will give rise to a series of tax issues, which often require careful consideration during restructuring planning. In these cases, different plans may be used to assess the tax impacts, predict tax compliance issues, and optimize tax arrangements. In this regard, tax issues may include the following:

Value-added tax

- Value-added tax policies for financial assets and intangible assets that are transferred during restructuring: According to the *Announcement on VAT Issues Concerning Asset Restructuring of Taxpayers (Announcement of the State Administration of Taxation [2011] No. 13)* and the *Notice of the Ministry of Finance and the State Administration of Taxation on the Full Launch of the Pilot Scheme for Levying Value-added Tax in Place of Business Tax (Cai Shui [2016] No. 36)*, if a taxpayer transfers all or part of its physical assets as well as the associated creditor's rights, debts, and staff to other organizations or individuals through a merger, division, sale, or swap during an asset restructuring that involves the transfer of goods, immovables or land use rights, the assets are not subject to value-added tax. During such restructurings, commercial banks will need to transfer intangible assets in addition to financial assets and land use rights. However, there is no tax policy that clearly indicates whether such assets may be exempted from value-added tax. Therefore, banks should proactively consult the competent tax authorities about this issue.

- Value-added tax treatment on the re-transfer or leasing of immovables by banking entities after restructuring: If the immovables involved in the restructuring were obtained by banks before 30 April 2016 and the policy exempting the entire asset transfer from value-added tax applied to the restructuring, it is not clear whether the simplified tax calculation methods specified in the *Announcement of the State Administration of Taxation on the Promulgation of the Provisional Measures on the Administration of the Levying and Collection of VAT on Transfers of Immovables by Taxpayers (Announcement of the State Administration of Taxation [2016] No. 14)* and the *Announcement of the State Administration of Taxation on the Promulgation of the Provisional Measures on the Administration of the Levying and Collection of Value-added Tax on Operating Leases of Immovables Provided by Taxpayers (Announcement of the State Administration of Taxation [2016] No. 16)* are applicable when the banks re-transfer or lease the immovables after restructuring. Therefore, banks should proactively consult the competent tax authorities about this issue.

- Whether input tax in excess of output tax can be used by the surviving bank after restructuring: According to the *Announcement of the State Administration of Taxation on Issues Relating to the Handling of Uncredited Value-added Tax Amounts in the Asset Restructurings of Taxpayers (Announcement of the State Administration of Taxation [2012] No. 55)*, if an ordinary taxpayer transfers all its assets, liabilities, and staff to another ordinary taxpayer (the "new taxpayer") during asset restructuring and completes the tax deregistration process, the input tax in excess of output tax before the deregistration can be used by the new taxpayer to offset the output tax. Banks should assess whether the above-mentioned value-added tax policies will apply based on the specific restructuring plans they plan to implement, and determine their potential impacts on accounting, valuation, the new structure, etc.

- Trading losses on financial products after restructuring: Banks may have suffered trading losses on financial products before restructuring. However, there is no regulation that states whether the total losses can be used by the surviving bank to offset its trading gains on financial products in the year of restructuring. Therefore, banks should proactively consult the competent tax authorities about this issue.

- Invoice issuance after restructuring for services delivered before restructuring: In practice, the value-added tax may be paid before invoice issuance. Before restructuring, banks may have filed and paid value-added tax without issuing invoices to customers. They should consider whether it is necessary to issue the invoices before restructuring, or they can consult the competent tax authorities to determine whether the invoices can be issued by the surviving bank after restructuring.

Corporate income tax and other taxes

- Special treatment of corporate income tax: Banks need to analyze whether their merger and restructuring meets the special tax treatment conditions specified in the *Notice of the Ministry of Finance and the State Administration of Taxation on Several Issues Relating to Corporate Income Tax Treatment for the Restructured Business Operations of Enterprises (Cai Shui [2009] No. 59)*, the *Notice of the Ministry of Finance and the State Administration of Taxation on Issues Relating to Handling Enterprise Income Tax in Promoting Enterprise Restructuring (Cai Shui [2014] No. 109)*, and other policies.

- Land value-added tax on the buildings and land use rights involved in mergers and restructurings: Banks should analyze whether the transfer of their land and buildings to the surviving bank meets the temporary land value-added tax exemption conditions specified in the *Notice on the Continued Implementation of Land Appreciation Tax Policies Relating to Enterprise Transformation and Restructuring (Cai Shui [2018] No. 57)*, the *Announcement on the Continued Implementation of Land Appreciation Tax Policies Relating to Enterprise Transformation and Restructuring (Cai Shui [2021] No. 21)*, and other policies.

- Deed tax treatment on buildings and land use rights involved in mergers and restructurings: Banks should analyze whether the transfer of their land and buildings to the surviving bank qualifies for the deed tax exemption according to the *Notice on Relevant Deed Tax Policies for Continued Support for the Restructuring and Reorganization of Enterprises and Public Institutions (Cai Shui [2018] No. 17)*, the *Announcement of the Ministry of Finance and the State Administration of Taxation on the Continued Implementation of Relevant Deed Tax Policies for the Restructuring and Reorganization of Enterprises and Public Institutions (Announcement of the Ministry of Finance and the State Administration of Taxation [2021] No. 17)*, and other policies.

- Stamp tax treatment on asset transfers: Banks should determine whether the immovables, land use rights, equities, stocks and other assets that are transferred to the surviving bank qualify for the stamp tax exemption for asset transfer instruments according to the *Notice of the Ministry of Finance and the State Administration of Taxation on Relevant Policies Concerning Stamp Tax in the Process of Enterprise Restructuring (Cai Shui [2003] No. 183)* and other policies.

- Payment of the stamp tax for capital accounts after restructuring: The surviving bank should analyze whether it can pay stamp tax only for the excess paid-in capital and capital reserve on which stamp tax was not paid before restructuring according to *Cai Shui [2003] Notice No. 183* and other policies.

Tax solutions amid the extended transition to the new asset management rules

The COVID-19 pandemic and worsening macro-economy have given rise to many asset management risks. In order to ensure a smooth transition to the new asset management rules, the People's Bank of China (PBOC) has extended the transition period to the end of 2021. Notably, for financial institutions that are unable to fully transition by the end of 2021, the PBOC may implement differentiated regulations on a case by case basis.

Banks and their wealth management subsidiaries that are not operating their wealth management business in accordance with the new asset management rules should take measures to meet the requirements for breaking rigid payment, implementing net value management, removing multi-layer nesting, reducing agency business, and lowering period mismatches as specified in the rules. In addition, asset product managers should comprehensively consider the value-added tax issues that affect asset management products during the implementation of the rules according to *Cai Shui [2016] Notice No. 140*, the *Notice on Issues Relating to VAT on Fund Management Products (Cai Shui [2017] No. 56),* and other value-added tax policies. For example, after removing multi-layer nesting, asset product managers need to assess how value-added taxes apply to the new direct investments and consider how to appropriately design the investment structures and portfolios to minimize taxes. While addressing the asset investment period requirement in the new asset management rules, asset product managers should also consider how to design asset management products so that the value-added tax policies for "held-to-maturity" products can be enjoyed.

Room to improve tax incentive measures for inclusive finance

In recent years, the CPC Central Committee and State Council have attached great importance to the development of inclusive finance. In respect of inclusive finance taxation, we have noticed that tax incentives targeting farmers, SMEs, and individual businesses have been widely promoted, especially value-added tax exemption policies; and these incentives have generated outstanding results. We have also noticed that the parties concerned have raised useful suggestions on how to improve the coverage and stability of preferential inclusive finance tax policies.

During the pandemic, banks' non-performing loan ratios have increased; and as a result, calls to lower the threshold for pre-income-tax deductions of loan losses have grown stronger. On the one hand, there is a significant gap in the loan loss criterion between accounting and taxation. For accounting, non-performing debts are written off according to the principle of "writing off accounts, preserving the records of written-off accounts, and reserving rights." For taxation, tax exemptions are applied based on "actuality," which means pre-income-tax deductions are only applied to losses that have been truly incurred and that are backed by sufficient evidence. On the other hand, the current tax laws and regulations impose rigid requirements for loan loss evidence for pre-income-tax deductions. Banks can only enjoy the deduction if they have a retrospective judicial action record, a court judgment, an arbitration award, a court judgment to terminate (suspend) execution, or a bankruptcy or liquidation announcement based on the actual situation. Obtaining this evidence is often impractical when banks have to deal with a large number of small loans, leading to independent write-offs and high costs. Going forward, the banking industry should keep an eye on whether the authorities reduce the loan loss criterion gap and the evidence requirement.

The continuity and stability of preferential inclusive finance tax policies is another issue that concerns banks. In order to implement a certain preferential tax policy, banks need to align their business processes, accounting practices, and systems, which requires a significant amount of time, labor, and funds. Preferential tax policies are often rolled out based on specific economic and financial conditions. These policies often last 3 years or less, and the expiring policies are extended depending on their effectiveness and overall economic development. The short effective periods, uncertain continuity, and delayed implementation of policies undermine banks' expectations for long-term stability and compromise their determination to implement the policies. To mitigate these issues, tax policymakers should work with the interested parties to explore ways to address the banks' concerns.

Tax issues arising from the development of cross-border financial services

The increasing tension between China and the US and the economic impact of the COVID-19 pandemic have not affected the opening up of China's financial industry. The country continues to launch policies to open its financial market and drive cross-border financial service innovation. As cross-border financial services increase in coverage and volume, value-added tax issues are certain to arise.

For example, in respect of cross-border financial instrument investments, the *Notice on Seeking Public Comments on the Value-added Tax Law of the People's Republic of China* (Exposure Draft) (the "Exposure Draft") released in 2019 defines "sales of financial instruments" as a type of assessable transaction. Under the Exposure Draft, if the seller of a financial instrument is an entity or individual in China or the financial instrument is issued in China, then the transaction constitutes the sale of a financial instrument in China and will be subject to the country's value-added tax. Therefore, foreign investors that sell financial instruments issued in China need to pay value-added tax, which is not a common practice in other countries and regions. This rule could make China's capital market less appealing to foreign investors and affect its competitiveness. Meanwhile, an effective tax withholding mechanism is necessary for tax collection and supervision. According to the Exposure Draft, for assessable transactions in China involving foreign entities and individuals, the buyers shall be responsible for tax withholding. However, the frequency of transactions in the capital market can make it difficult to identify the buyers, and in some cases the buyers are unable to withhold the tax. In addition, it is hard to determine how to offset the value-added tax for foreign entities under the current policies that allow such offsets during financial instrument transfers.

Tax challenges for fintech businesses

Since 2020, the fintech industry has been subject to tightening regulation in respect of licensing requirements, anti-trust objectives, and efforts to prevent the disorderly expansion of capital. Regulators have launched policies to regulate online lending and similar activities; and they have been holding discussions with fintech giants in an effort to strike a balance between innovation and risk, and between regulation and development.

Fintech companies' involvement in financial services has complicated the relationships between financial service participants, and the current tax policies are usually unable to offer clear support as business developments often occur ahead of policy changes. For example, in some cases, Internet financial companies have provided certain types of subsidies, such as interest-free coupons or cash interest, to potential borrowers, in order to encourage them to borrow from banks. After banks make loans to the borrowers, the Internet financial companies then pay the subsidy amounts to the banks. According to the *Announcement on Determination of Income Items Subject to Individual Income Tax for Relevant Income Obtained by Individuals (Announcement of the Ministry of Finance and the State Administration of Taxation [2019] No. 74)*, gifts (including online red packets) that have been randomly provided by enterprises to external individuals during business promotion, advertising, or other activities shall be subject to individual income tax as contingent income, except for gifts from enterprises that are consumer coupons or vouchers for discounts or allowances. In the eyes of borrowers, the interest-free coupons from Internet financial companies are discounts or allowances that they have received from third parties, not from banks. Within this context, it is unclear whether the above-mentioned policy should be applied to waive the companies' responsibility to withhold individual income tax for the borrowers. In addition, since the banks do not provide lending services to the Internet financial companies, the companies are unable to obtain value-added tax invoices from the banks for the interest spreads or subsidies they pay to the banks. Therefore, it is also unclear whether such expenses qualify for pre-income-tax deduction.

Fintech companies are also affected by tax issues that relate to their role as technology providers. For example, some fintech companies may offer Software-as-a-Service (SaaS) services, which are web-based non-physical services that users can access via the Internet or a cloud platform without the need to download any software. Different opinions exist on how to levy value-added tax on such services. Some believe that the services should be regarded as information processing program under the software product definition provided in the *Notice of the Ministry of Finance and State Administration of Taxation on Value-added Tax Policies for Software Products (Cai Shui [2011] No. 100),* which would trigger a 13% value-added tax for the sales of software products. Others believe that SaaS is a service delivered using software, which means it should be subject to the 6% value-added tax applicable to information technology services according to *Cai Shui [2016] Notice No. 36.*

Challenges in the adoption of electronic special VAT invoices

Electronic special VAT invoices are rapidly gaining popularity as a result of pilot projects that are being promoted in many areas and among new taxpayers. E2E automation based on electronic invoices is becoming more and more of a trend, and electronic special VAT invoices are very important in encouraging banks to develop intelligent and efficient business, financial, and tax management models. Electronic invoices can facilitate the adoption of processes for electronic financial and business filings, and they will have an impact on the systems and processes related to vendor collaboration, input and output invoice management, payable and receivable management, financial management, file management, etc. Against this backdrop, banks should consider reshaping their processes and addressing system collaboration issues, including in respect of comprehensive tax control against invoices, storage and management of electronic certificates, upgrading of legacy input and output invoice management platforms, one-click invoice issuance, and provision of paperless certificates.

Electronic invoices can help banks reduce their huge invoice issuance workload in respect of loan interest collection, and electronic special VAT invoices can further enable them to issue special invoices for the same purpose. This development has led to speculation in the industry as to whether interest will qualify for input VAT deduction in the future. Going forward, we will be closely monitoring this issue.

Author:

Fiona Yu
Director, Tax
Financial Services
KPMG China

03 Commercial banks' financial summary

03 Commercial banks' financial summary

2020 rankings	Name of bank	Currency	Total assets (Unit: Million) 2020	Total assets 2019	Net assets attributable to the parent company (Unit: Million) 2020	Net assets attributable to the parent company 2019	Total loans (Unit: Million) 2020	Total loans 2019	Total deposits (Unit: Million) 2020	Total deposits 2019	Operating income (Unit: Million) 2020	Operating income 2019	Net fee income (Unit: Million) 2020	Net fee income 2019	Net interest income (Unit: Million) 2020	Net interest income 2019	Net profit attributable to the parent company (Unit: Million) 2020	Net profit attributable to the parent company 2019	Cost-to-income ratio (% (rounded to 2 decimal places)) 2020	Cost-to-income ratio 2019
1	Industrial and Commercial Bank of China Co., Ltd.	RMB	33,345,058	30,109,436	2,893,502	2,676,186	18,666,628	16,805,050	25,134,726	22,977,655	882,665	855,428	131,215	130,573	646,765	632,217	315,906	312,224	22.30%	23.27%
2	China Construction Bank Corporation	RMB	28,132,254	25,436,261	2,364,808	2,216,257	16,787,432	15,024,159	20,614,976	18,366,293	755,858	705,629	114,582	110,898	575,909	537,066	271,050	266,733	25.12%	26.53%
3	Agricultural Bank of China Limited	RMB	27,205,047	24,877,491	2,204,789	1,948,355	15,170,442	13,360,342	20,372,901	18,849,155	657,961	627,268	74,545	72,927	545,079	500,870	215,925	212,098	29.23%	30.49%
4	Bank of China Limited	RMB	24,402,659	22,769,744	2,038,419	1,851,701	14,216,477	13,068,785	16,879,171	15,817,548	565,531	549,182	75,522	73,812	415,918	390,050	192,870	187,405	26.73%	28.00%
5	Postal Savings Bank of China Co., Ltd.	RMB	11,353,263	10,216,706	671,799	543,867	5,716,258	4,974,186	10,358,029	9,314,066	286,202	276,809	16,495	14,623	253,378	242,686	64,199	60,933	57.88%	56.57%
6	Bank of Communications Co., Ltd.	RMB	10,697,616	9,905,600	866,607	793,247	5,861,404	5,318,923	6,607,330	6,072,908	246,200	232,472	45,086	43,625	153,336	144,083	78,274	77,281	28.29%	30.11%
7	China Merchants Bank Co., Ltd.	RMB	8,361,448	7,417,240	723,750	611,301	5,038,883	4,500,199	5,664,135	4,874,981	290,482	269,703	79,486	71,493	185,031	173,090	97,342	92,867	33.30%	32.09%
8	Shanghai Pudong Development Bank Co., Ltd.	RMB	7,950,218	7,005,929	638,197	553,861	4,549,549	4,040,929	4,122,407	3,661,842	196,384	190,688	33,946	24,774	138,581	144,523	58,325	58,911	23.78%	22.58%
9	Industrial Bank Co., Ltd.	RMB	7,894,000	7,145,681	615,586	541,360	3,975,389	3,450,033	4,084,242	3,794,832	203,137	181,308	37,710	30,378	143,515	122,289	66,626	65,868	24.16%	26.03%
10	China CITIC Bank Corporation Limited	RMB	7,511,161	6,750,433	544,573	517,311	4,485,899	4,008,091	4,572,286	4,073,258	194,731	187,584	28,836	26,730	150,515	146,925	48,980	48,015	26.65%	27.70%
11	China Minsheng Banking Corp., Ltd.	RMB	6,950,233	6,681,841	529,537	518,845	3,878,839	3,512,902	3,768,151	3,637,034	184,951	180,441	27,664	28,204	135,224	122,034	34,309	53,819	26.19%	26.74%
12	China Everbright Bank Company Limited	RMB	5,368,110	4,733,431	453,449	384,982	3,017,968	2,720,364	3,480,667	3,017,888	142,479	132,812	24,323	23,169	110,697	101,918	37,824	37,354	26.38%	27.27%
13	Ping An Bank Co., Ltd.	RMB	4,468,514	3,939,070	364,131	312,983	2,673,662	2,328,909	2,695,935	2,459,768	153,542	137,958	43,481	36,743	99,650	89,961	28,928	28,195	29.11%	29.61%
14	Hua Xia Bank Co., Ltd.	RMB	3,399,816	3,020,789	280,613	267,588	2,115,285	1,877,093	1,837,020	1,671,276	95,309	84,734	10,558	10,182	81,967	72,395	21,275	21,905	27.93%	30.59%
15	China Guangfa Bank Co., Ltd.	RMB	3,027,972	2,632,798	218,150	209,564	1,803,981	1,573,263	1,852,555	1,600,170	80,525	76,312	11,302	9,178	62,847	59,579	13,812	12,581	28.66%	30.79%
16	Bank of Beijing Co., Ltd.	RMB	2,900,014	2,737,040	219,219	207,129	1,573,657	1,451,909	1,656,149	1,545,130	64,299	63,129	6,390	7,088	51,605	49,877	21,484	21,441	22.07%	23.23%
17	Bank of Shanghai Co., Ltd.	RMB	2,462,144	2,237,082	190,398	176,709	1,101,536	976,211	1,315,725	1,203,552	50,746	49,800	5,609	5,124	36,394	31,764	20,885	20,298	18.93%	19.98%
18	Bank of Jiangsu Co., Ltd.	RMB	2,337,893	2,065,058	178,038	132,792	1,206,549	1,044,323	1,329,870	1,205,562	52,026	44,974	5,357	4,543	36,987	27,017	15,066	14,619	23.46%	25.64%
19	China Zheshang Bank Co., Ltd.	RMB	2,048,225	1,800,786	130,512	126,246	1,197,698	1,030,171	1,335,636	1,143,741	47,703	46,364	4,250	3,791	37,095	34,662	12,309	12,924	25.96%	26.24%
20	Bank of Ningbo Co., Ltd.	RMB	1,626,749	1,317,717	118,480	100,309	690,383	531,151	933,164	779,224	41,111	35,082	6,342	5,110	27,859	22,238	15,050	13,715	37.96%	34.32%
21	Bank of Nanjing Co., Ltd.	RMB	1,517,076	1,343,435	106,876	86,881	676,392	570,342	959,173	863,653	34,465	32,442	4,965	3,971	23,694	21,454	13,101	12,453	28.46%	27.39%
22	China Bohai Bank Co., Ltd.	RMB	1,393,523	1,116,930	103,246	82,639	891,946	710,880	758,236	647,765	32,492	28,378	2,902	4,115	28,477	23,021	8,445	8,193	26.52%	29.50%
23	Huishang Bank Corporation Limited	RMB	1,271,701	1,131,721	103,041	87,209	574,051	464,941	726,743	603,455	32,290	31,159	3,617	3,549	25,752	25,341	9,570	9,819	23.71%	22.76%
24	Bank of Hangzhou Co., Ltd.	RMB	1,169,257	1,024,070	80,863	62,545	484,330	414,986	703,680	619,976	24,806	21,409	3,015	1,494	19,272	15,784	7,136	6,602	26.35%	28.71%
25	Chongqing Rural Commercial Bank Co., Ltd.	RMB	1,135,926	1,029,790	93,229	87,773	507,886	437,085	725,000	673,402	28,186	26,630	2,903	2,239	24,249	23,374	8,401	9,760	27.09%	28.54%
26	Hengfeng Bank Co., Ltd.	RMB	1,114,155	1,028,768	104,871	86,650	554,856	443,245	604,558	557,435	21,028	13,763	2,115	1,598	15,649	9,987	5,310	661	39.47%	56.80%
27	Shanghai Rural Commercial Bank Co., Ltd.	RMB	1,056,977	929,938	77,211	71,150	531,581	467,616	763,617	692,349	22,040	21,271	2,332	2,468	17,871	15,354	8,161	8,846	28.86%	30.37%
28	Shengjing Bank Co., Ltd.	RMB	1,037,958	1,021,481	79,452	78,556	555,023	459,255	697,364	655,071	16,267	21,007	689	1,155	14,558	16,350	1,204	5,443	29.76%	21.31%
29	Beijing Rural Commercial Bank Co., Ltd.	RMB	1,029,284	958,590	64,595	60,598	361,261	340,895	683,646	649,290	16,565	18,839	851	1,106	14,052	16,766	7,415	8,229	36.86%	34.33%
30	Guangzhou Rural Commercial Bank Co., Ltd.	RMB	1,027,872	894,154	69,487	68,347	568,926	479,968	778,425	658,243	21,218	23,657	1,327	1,363	17,647	18,883	5,081	7,520	31.95%	27.25%
31	Xiamen International Bank Co., Ltd.	RMB	950,146	915,525	57,408	50,246	522,767	466,814	655,411	634,682	17,712	16,884	1,519	1,833	14,028	13,035	4,513	5,152	27.21%	25.47%
32	Bank of Jinzhou Co., Ltd.	RMB	777,992	836,694	67,659	55,671	515,898	496,034	439,224	407,113	9,309	23,170	175	232	9,299	19,345	405	(959)	32.35%	15.02%
33	Zhongyuan Bank Co., Ltd.	RMB	757,483	709,885	58,262	56,745	359,376	301,002	431,341	389,732	19,428	19,022	1,786	1,767	16,565	15,708	3,301	3,164	35.61%	38.45%
34	Bank of Changsha Co., Ltd.	RMB	704,235	601,998	44,333	40,633	316,078	261,171	463,646	392,017	18,022	17,017	797	850	14,961	13,200	5,338	5,080	29.69%	30.72%
35	Bank of Tianjin Co., Ltd.	RMB	687,760	669,401	53,130	50,395	307,822	293,946	355,982	350,996	17,197	17,054	2,311	2,266	13,646	13,223	4,308	4,548	21.80%	22.20%
36	Bank of Chengdu Co., Ltd.	RMB	652,434	558,386	46,033	35,551	284,067	231,898	444,988	386,719	14,600	12,725	366	298	11,827	10,450	6,025	5,551	23.87%	26.52%
37	Bank of Guangzhou Co., Ltd.	RMB	641,632	561,231	42,849	40,044	332,296	295,699	417,118	362,344	14,918	13,379	1,246	767	11,945	10,443	4,455	4,324	25.45%	28.15%
38	Harbin Bank Co., Ltd.	RMB	598,604	583,089	49,247	49,827	283,455	266,505	476,333	431,362	14,606	15,124	880	1,366	12,309	11,695	746	3,558	32.06%	32.71%
39	Bank of Guiyang Co., Ltd.	RMB	590,680	560,399	42,944	39,029	231,917	205,116	360,885	337,582	16,081	14,668	869	736	13,718	12,320	5,922	5,800	23.84%	26.30%
40	HSBC Bank (China) Company Limited	RMB	565,802	524,797	51,717	50,616	217,061	213,081	307,182	287,272	11,764	12,932	1,994	1,886	7,654	8,273	3,589	4,455	63.54%	58.47%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

03 Commercial banks' financial summary

2020 rankings

	Name of bank	Currency	Return on average equity % (rounded to 2 decimal places)		Net interest spread % (rounded to 2 decimal places)		Net interest margin % (rounded to 2 decimal places)		Non-performing loan (NPL) ratio % (rounded to 2 decimal places)		Allowance to total loans ratio % (rounded to 2 decimal places)		Provision coverage ratio % (rounded to 2 decimal places)		Capital adequacy ratio % (rounded to 2 decimal places)		Tier 1 capital adequacy ratio % (rounded to 2 decimal places)		Core tier 1 capital adequacy ratio % (rounded to 2 decimal places)	
			2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
1	Industrial and Commercial Bank of China Co., Ltd.	RMB	11.95%	13.05%	1.97%	2.12%	2.15%	2.30%	1.58%	1.43%	2.85%	2.86%	180.68%	199.32%	16.88%	16.77%	14.28%	14.27%	13.18%	13.20%
2	China Construction Bank Corporation	RMB	12.12%	13.18%	2.04%	2.16%	2.19%	2.32%	1.56%	1.42%	3.33%	3.23%	213.59%	227.69%	17.06%	17.52%	14.22%	14.68%	13.62%	13.88%
3	Agricultural Bank of China Limited	RMB	11.35%	12.43%	2.04%	2.09%	2.20%	2.23%	1.57%	1.40%	4.08%	4.06%	260.64%	288.75%	16.59%	16.13%	12.92%	12.53%	11.04%	11.24%
4	Bank of China Limited	RMB	10.61%	11.45%	1.72%	1.72%	1.85%	1.89%	1.46%	1.37%	2.96%	2.97%	177.84%	182.86%	16.22%	15.59%	13.19%	12.79%	11.28%	11.30%
5	Postal Savings Bank of China Co., Ltd.	RMB	11.84%	13.10%	2.36%	2.48%	2.42%	2.53%	0.88%	0.86%	3.60%	3.35%	408.06%	389.45%	13.88%	13.52%	11.86%	10.87%	9.60%	9.90%
6	Bank of Communications Co., Ltd.	RMB	10.35%	11.20%	1.48%	1.48%	1.57%	1.58%	1.67%	1.47%	2.40%	2.53%	143.87%	171.77%	15.25%	14.83%	12.88%	12.85%	10.87%	11.22%
7	China Merchants Bank Co., Ltd.	RMB	15.73%	16.84%	2.40%	2.48%	2.49%	2.59%	1.07%	1.16%	4.67%	4.97%	437.68%	426.78%	16.54%	15.54%	13.98%	12.69%	12.29%	11.95%
8	Shanghai Pudong Development Bank Co., Ltd.	RMB	10.81%	12.29%	1.97%	2.27%	2.02%	2.34%	1.73%	2.03%	2.59%	2.70%	150.74%	133.85%	14.64%	13.86%	11.54%	11.53%	9.51%	10.26%
9	Industrial Bank Co., Ltd.	RMB	12.62%	14.02%	2.11%	1.96%	2.36%	2.25%	1.25%	1.54%	2.74%	3.07%	218.83%	199.13%	13.47%	13.36%	10.85%	10.56%	9.33%	9.47%
10	China CITIC Bank Corporation Limited	RMB	10.11%	11.07%	2.18%	2.36%	2.26%	2.45%	1.64%	1.65%	2.82%	2.90%	171.68%	175.25%	13.01%	12.44%	10.18%	10.20%	8.74%	8.69%
11	China Minsheng Banking Corp., Ltd.	RMB	6.81%	12.40%	2.12%	2.14%	2.14%	2.14%	1.82%	1.56%	2.53%	2.43%	139.38%	155.50%	13.04%	13.17%	9.81%	10.28%	8.51%	8.89%
12	China Everbright Bank Company Limited	RMB	10.71%	11.77%	2.20%	2.18%	2.29%	2.31%	1.38%	1.56%	2.53%	2.83%	182.71%	181.62%	13.90%	13.47%	11.75%	11.08%	9.02%	9.20%
13	Ping An Bank Co., Ltd.	RMB	9.58%	11.30%	2.43%	2.53%	2.53%	2.62%	1.18%	1.65%	2.37%	3.01%	201.40%	183.12%	13.29%	13.22%	10.91%	10.54%	8.69%	9.11%
14	Hua Xia Bank Co., Ltd.	RMB	8.64%	10.61%	2.48%	2.37%	2.59%	2.51%	1.80%	1.83%	2.65%	2.59%	147.22%	141.92%	13.08%	13.89%	11.17%	11.91%	8.79%	9.25%
15	China Guangfa Bank Co., Ltd.	RMB	6.98%	7.42%	2.21%	2.53%	2.34%	2.62%	1.55%	1.55%	2.76%	2.69%	178.32%	173.41%	12.50%	12.56%	9.85%	10.65%	7.80%	8.35%
16	Bank of Beijing Co., Ltd.	RMB	10.65%	11.45%	1.85%	1.87%	1.92%	1.96%	1.57%	1.40%	3.38%	3.15%	215.95%	224.69%	11.49%	12.28%	10.28%	10.09%	9.42%	9.22%
17	Bank of Shanghai Co., Ltd.	RMB	12.09%	12.94%	1.94%	1.98%	1.82%	1.78%	1.22%	1.16%	3.92%	3.90%	321.38%	337.15%	12.86%	13.84%	10.46%	10.92%	9.34%	9.66%
18	Bank of Jiangsu Co., Ltd.	RMB	11.91%	12.65%	1.90%	1.72%	2.14%	1.94%	1.32%	1.38%	3.38%	3.21%	256.40%	232.79%	14.47%	12.89%	11.91%	10.10%	9.25%	8.59%
19	China Zheshang Bank Co., Ltd.	RMB	10.03%	12.92%	1.99%	2.13%	2.19%	2.39%	1.42%	1.37%	2.72%	3.03%	191.01%	220.80%	12.93%	14.24%	9.88%	10.94%	8.75%	9.64%
20	Bank of Ningbo Co., Ltd.	RMB	14.90%	17.10%	2.54%	2.57%	2.30%	2.27%	0.79%	0.78%	4.01%	4.10%	505.59%	524.08%	14.84%	15.57%	10.88%	11.30%	9.52%	9.62%
21	Bank of Nanjing Co., Ltd.	RMB	14.32%	16.53%	1.99%	1.99%	1.86%	1.86%	0.91%	0.89%	3.58%	3.73%	391.76%	417.73%	14.75%	13.03%	10.99%	10.01%	9.97%	8.87%
22	China Bohai Bank Co., Ltd.	RMB	10.68%	13.71%	2.18%	2.04%	2.35%	2.22%	1.77%	1.78%	2.81%	3.34%	158.80%	187.73%	12.08%	13.07%	11.01%	10.63%	8.88%	8.06%
23	Huishang Bank Corporation Limited	RMB	12.94%	14.60%	2.17%	2.33%	2.42%	2.55%	1.98%	1.04%	3.61%	3.15%	181.90%	303.86%	12.12%	13.21%	9.89%	10.85%	8.04%	8.85%
24	Bank of Hangzhou Co., Ltd.	RMB	11.14%	12.15%	1.96%	1.93%	1.98%	1.85%	1.07%	1.34%	5.02%	4.23%	469.54%	316.71%	14.41%	13.54%	10.83%	9.62%	8.53%	8.08%
25	Chongqing Rural Commercial Bank Co., Ltd.	RMB	9.28%	12.82%	2.08%	2.17%	2.25%	2.33%	1.31%	1.25%	4.12%	4.75%	314.95%	380.31%	14.28%	14.88%	11.97%	12.44%	11.96%	12.42%
26	Hengfeng Bank Co., Ltd.	RMB	6.02%	1.83%	1.62%	0.91%	1.68%	0.99%	2.67%	3.38%	4.02%	4.08%	150.37%	120.83%	11.91%	12.26%	10.94%	9.68%	9.01%	9.68%
27	Shanghai Rural Commercial Bank Co., Ltd.	RMB	11.02%	13.14%	1.83%	1.77%	1.91%	1.87%	0.99%	0.90%	4.14%	3.90%	419.17%	431.31%	14.40%	15.57%	11.70%	12.62%	11.67%	12.59%
28	Shengjing Bank Co., Ltd.	RMB	1.55%	7.99%	1.55%	1.59%	1.62%	1.76%	3.26%	1.75%	3.72%	2.82%	114.05%	160.90%	12.23%	14.54%	11.07%	11.48%	11.07%	11.48%
29	Beijing Rural Commercial Bank Co., Ltd.	RMB	11.85%	14.69%	1.32%	1.79%	1.50%	1.91%	0.90%	0.95%	3.69%	3.78%	409.57%	398.24%	15.89%	15.87%	12.76%	12.64%	12.76%	12.64%
30	Guangzhou Rural Commercial Bank Co., Ltd.	RMB	7.10%	13.24%	1.98%	2.71%	2.01%	2.65%	1.81%	1.73%	2.81%	3.61%	154.85%	208.09%	12.56%	14.23%	10.74%	11.65%	9.20%	9.96%
31	Xiamen International Bank Co., Ltd.	RMB	8.69%	10.82%	1.48%	1.63%	1.58%	1.64%	0.84%	0.71%	2.19%	2.31%	259.80%	323.47%	12.06%	12.26%	9.49%	9.41%	9.15%	9.04%
32	Bank of Jinzhou Co., Ltd.	RMB	0.78%	-2.07%	1.68%	2.29%	1.42%	2.48%	2.07%	7.70%	4.11%	8.86%	198.67%	115.01%	11.76%	8.09%	9.65%	6.47%	8.23%	5.15%
33	Zhongyuan Bank Co., Ltd.	RMB	5.70%	5.52%	2.36%	2.58%	2.48%	2.67%	2.21%	2.23%	3.39%	3.39%	153.31%	151.77%	13.20%	13.02%	10.35%	10.31%	8.59%	8.51%
34	Bank of Changsha Co., Ltd.	RMB	13.76%	15.61%	2.69%	2.73%	2.58%	2.60%	1.21%	1.22%	3.54%	3.42%	292.68%	279.98%	13.60%	13.25%	9.97%	10.76%	8.61%	9.16%
35	Bank of Tianjin Co., Ltd.	RMB	8.26%	9.32%	1.98%	1.88%	2.26%	2.21%	2.16%	1.98%	3.96%	4.36%	183.45%	220.58%	14.48%	15.24%	11.12%	10.63%	11.12%	10.62%
36	Bank of Chengdu Co., Ltd.	RMB	15.94%	16.63%	2.31%	2.24%	2.19%	2.16%	1.37%	1.43%	4.01%	3.63%	293.43%	253.88%	14.23%	15.69%	10.65%	10.14%	9.26%	10.13%
37	Bank of Guangzhou Co., Ltd.	RMB	10.70%	11.35%	2.37%	2.51%	2.27%	2.30%	1.10%	1.19%	2.65%	2.59%	241.75%	217.30%	12.43%	12.42%	10.10%	10.14%	10.10%	10.14%
38	Harbin Bank Co., Ltd.	RMB	1.51%	7.41%	2.18%	2.02%	2.20%	2.10%	2.97%	1.99%	3.96%	3.04%	133.26%	152.50%	12.59%	12.53%	10.20%	10.24%	10.18%	10.22%
39	Bank of Guiyang Co., Ltd.	RMB	15.75%	17.41%	2.43%	2.36%	2.52%	2.40%	1.53%	1.45%	4.25%	4.23%	277.30%	291.86%	12.88%	13.61%	10.53%	10.77%	9.30%	9.39%
40	HSBC Bank (China) Company Limited	RMB	7.02%	8.91%	1.32%	1.52%	1.46%	1.71%	0.19%	0.41%	1.52%	1.53%	800.10%	376.10%	16.80%	16.20%	15.90%	15.50%	15.90%	15.50%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

03 Commercial banks' financial summary

2020 rankings	Name of bank	Currency	Total assets (Unit: Million) 2020	Total assets 2019	Net assets attributable to the parent company (Unit: Million) 2020	Net assets attributable to the parent company 2019	Total loans (Unit: Million) 2020	Total loans 2019	Total deposits (Unit: Million) 2020	Total deposits 2019	Operating income (Unit: Million) 2020	Operating income 2019	Net fee income (Unit: Million) 2020	Net fee income 2019	Net interest income (Unit: Million) 2020	Net interest income 2019	Net profit attributable to the parent company (Unit: Million) 2020	Net profit attributable to the parent company 2019	Cost-to-income ratio (% (rounded to 2 decimal places)) 2020	Cost-to-income ratio 2019
41	Bank of Chongqing Co., Ltd.	RMB	561,641	501,232	40,175	36,949	283,227	247,349	314,500	281,049	13,048	11,948	1,037	949	11,061	9,148	4,424	4,207	20.64%	21.68%
42	Dongguan Rural Commercial Bank Co., Ltd.	RMB	548,402	461,209	36,146	33,814	261,983	206,265	377,549	314,217	12,059	11,808	940	943	9,932	8,914	4,857	4,936	31.43%	28.43%
43	Bank of Zhengzhou Co., Ltd.	RMB	547,813	500,478	44,495	38,590	239,006	196,594	316,513	292,126	14,607	13,487	1,730	1,575	11,239	9,018	3,168	3,285	22.40%	26.46%
44	Chengdu Rural Commercial Bank Co., Ltd.	RMB	519,721	484,987	43,983	40,311	263,865	242,479	386,241	387,497	12,675	12,553	369	581	10,879	10,278	3,829	4,732	28.29%	29.18%
45	Shenzhen Rural Commercial Bank Co., Ltd.	RMB	519,207	422,001	35,294	29,881	244,888	210,146	403,459	341,361	12,304	9,681	290	397	10,206	7,321	4,254	4,793	30.24%	29.99%
46	Bank of Qingdao Co., Ltd.	RMB	459,828	373,622	30,285	29,915	207,646	173,568	275,751	215,425	10,541	9,616	1,692	1,217	8,147	6,846	2,394	2,285	33.61%	31.88%
47	Jiangxi Bank Co., Ltd.	RMB	458,693	456,119	35,268	34,456	224,022	210,783	315,771	284,549	10,285	12,953	579	541	9,054	10,745	1,859	2,051	32.96%	26.08%
48	Bank of Guizhou Co., Ltd.	RMB	456,401	409,389	36,028	33,889	214,366	180,266	289,043	260,266	11,248	10,706	363	95	10,121	9,871	3,671	3,564	30.29%	30.84%
49	Hankou Bank Co., Ltd.	RMB	438,893	404,912	22,963	20,954	216,754	177,075	290,755	250,341	5,602	6,419	890	740	4,017	4,175	1,062	2,266	38.99%	34.64%
50	Jiangsu Jiangnan Rural Commercial Bank Co., Ltd.	RMB	437,441	408,032	31,172	26,716	230,141	197,233	283,858	239,457	10,918	10,364	837	962	9,529	8,765	2,707	2,659	25.93%	26.39%
51	Bank of Jilin Co., Ltd.	RMB	434,500	376,369	37,746	31,194	300,152	254,459	329,415	293,799	10,908	9,984	503	686	9,572	9,044	1,257	1,211	37.23%	40.71%
52	Bank of Dalian Co., Ltd.	RMB	419,857	413,121	26,422	25,695	224,971	202,038	279,480	283,319	7,615	8,000	562	1,031	6,065	5,698	1,004	1,251	40.01%	38.45%
53	Bank of Dongguan Co., Ltd.	RMB	416,326	372,008	26,981	22,718	229,626	190,676	295,939	267,642	9,158	9,083	787	666	7,557	7,131	2,876	2,826	30.67%	28.97%
54	Bank of Jiujiang Co., Ltd.	RMB	415,794	363,352	25,976	24,726	210,880	178,956	313,805	255,263	10,192	9,676	624	342	7,861	7,351	1,673	1,837	27.28%	27.75%
55	Qingdao Rural Commercial Bank Co., Ltd.	RMB	406,811	341,667	28,842	24,415	218,256	179,107	250,694	218,806	9,572	8,729	302	199	8,085	7,090	2,960	2,825	28.79%	30.25%
56	Huarong Xiangjiang Bank Corporation Limited	RMB	405,976	366,777	30,943	23,919	228,900	208,033	251,557	227,684	10,461	9,346	(880)	(786)	10,523	9,253	2,871	3,023	23.14%	25.20%
57	Bank of Hebei Co., Ltd.	RMB	395,702	367,494	30,626	27,122	246,285	217,233	287,595	250,111	8,602	8,028	695	592	7,881	7,305	1,696	1,895	28.55%	31.08%
58	Bank of Suzhou Co., Ltd.	RMB	388,068	343,472	29,730	27,802	188,451	160,728	250,109	222,114	10,364	9,424	945	1,073	7,525	6,424	2,572	2,473	29.74%	31.68%
59	Guilin Bank Co., Ltd.	RMB	376,984	312,273	24,017	19,838	207,783	170,381	265,537	219,510	7,892	7,281	88	(35)	4,884	5,482	1,094	1,171	35.71%	34.92%
60	Guangdong Shunde Rural Commercial Bank Co., Ltd.	RMB	367,312	331,140	29,923	28,748	186,810	160,577	248,219	232,014	6,345	8,557	440	471	6,733	6,685	2,744	3,758	42.62%	30.13%
61	Bank of Lanzhou Co., Ltd.	RMB	362,319	336,683	27,152	21,463	194,210	176,232	286,363	271,014	7,304	7,618	224	244	4,790	5,720	1,493	1,464	29.49%	30.99%
62	Qilu Bank Co., Ltd.	RMB	360,232	307,520	27,082	22,461	172,408	140,621	249,018	211,274	7,936	7,407	630	445	6,414	5,878	2,519	2,338	28.81%	29.43%
63	Bank of Kunlun Co., Ltd.	RMB	349,884	336,484	33,843	32,682	160,796	146,166	198,144	184,160	5,920	7,124	52	32	3,940	4,265	2,911	3,587	33.44%	28.65%
64	Tianjin Rural Commercial Bank Co., Ltd.	RMB	349,596	319,683	29,670	29,105	181,752	154,438	235,209	218,288	7,649	8,519	316	122	6,963	7,816	2,261	2,457	31.46%	29.91%
65	WeBank Co., Ltd.	RMB	346,430	291,236	21,028	16,119	200,061	162,966	262,829	237,163	19,881	14,870	6,440	5,292	13,460	9,464	4,957	3,950	31.15%	25.03%
66	Bank of Gansu Co., Ltd.	RMB	342,364	335,044	31,429	24,657	181,826	170,449	249,678	236,869	6,493	7,233	329	253	5,750	5,288	558	509	34.30%	31.53%
67	Wuhan Rural Commercial Bank Co., Ltd.	RMB	332,236	299,490	23,103	23,080	171,642	147,645	232,953	203,581	7,991	8,205	190	198	3,912	4,634	898	948	41.01%	40.83%
68	Guangdong Huaxing Bank Co., Ltd.	RMB	330,169	233,141	19,875	15,687	161,382	113,624	240,234	159,169	7,376	5,874	359	202	6,810	5,546	2,228	2,036	36.84%	34.03%
69	Chang'An Bank Co., Ltd.	RMB	316,406	287,737	17,418	15,657	184,433	153,628	234,413	203,364	7,911	7,584	(355)	(305)	7,025	6,202	1,745	1,568	31.83%	31.88%
70	Zhejiang E-Commerce Bank Co., Ltd.	RMB	311,256	139,553	13,989	10,518	126,908	70,030	164,689	78,858	8,618	6,628	1,928	1,394	6,610	5,197	1,286	1,256	28.05%	42.74%
71	Fudian Bank Co., Ltd.	RMB	306,822	267,420	19,690	19,374	164,482	139,382	193,663	162,075	5,177	5,088	192	114	4,530	4,562	536	379	40.73%	40.64%
72	Bank of Xi'an Co., Ltd.	RMB	306,392	278,283	25,565	23,620	172,545	153,504	211,730	172,824	7,138	6,845	596	549	6,207	5,654	2,756	2,675	25.33%	25.68%
73	Hubei Bank Co., Ltd.	RMB	305,584	263,765	26,012	25,085	147,979	128,378	215,052	180,368	7,766	8,056	188	203	7,361	7,590	1,498	2,014	23.86%	24.48%
74	Guangxi Beibu Gulf Bank Co., Ltd.	RMB	305,279	235,030	21,089	17,327	157,795	121,538	205,850	154,201	6,014	4,783	263	299	5,399	4,374	1,538	1,144	30.78%	30.46%
75	Hangzhou United Rural Commercial Bank Co., Ltd.	RMB	302,839	236,731	22,384	20,098	197,586	154,437	232,013	185,766	8,016	7,822	81	(7)	7,285	6,985	2,279	2,153	31.73%	31.05%
76	Standard Chartered Bank (China) Limited	RMB	293,640	234,935	25,156	23,762	110,613	103,175	148,491	140,108	6,529	6,911	1,288	1,268	4,097	4,550	1,490	1,397	60.37%	57.30%
77	Bank of Wenzhou Co., Ltd.	RMB	287,183	230,472	15,715	13,017	139,948	121,967	198,509	154,375	4,234	4,231	110	455	3,930	3,601	159	693	40.91%	42.09%
78	Xiamen Bank Co., Ltd.	RMB	285,150	246,868	19,363	15,295	140,928	108,480	155,451	136,766	5,556	4,509	327	328	4,612	3,383	1,823	1,711	28.64%	29.13%
79	Longjiang Bank Co., Ltd.	RMB	282,109	258,970	17,735	17,105	112,476	100,964	198,327	167,774	4,640	5,170	614	725	3,977	4,043	786	1,138	36.01%	34.66%
80	Shanxi Qinnong Rural Commercial Bank Co., Ltd.	RMB	280,984	206,339	13,356	13,059	156,142	109,694	221,894	134,120	5,056	5,148	64	57	4,576	4,642	13,356	13,059	40.76%	42.24%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

03 Commercial banks' financial summary

2020 rankings

	Name of bank	Currency	Return on average equity % (rounded to 2 decimal places) 2020	2019	Net interest spread % (rounded to 2 decimal places) 2020	2019	Net interest margin % (rounded to 2 decimal places) 2020	2019	Non-performing loan (NPL) ratio % (rounded to 2 decimal places) 2020	2019	Allowance to total loans ratio % (rounded to 2 decimal places) 2020	2019	Provision coverage ratio % (rounded to 2 decimal places) 2020	2019	Capital adequacy ratio % (rounded to 2 decimal places) 2020	2019	Tier 1 capital adequacy ratio % (rounded to 2 decimal places) 2020	2019	Core tier 1 capital adequacy ratio % (rounded to 2 decimal places) 2020	2019
41	Bank of Chongqing Co., Ltd.	RMB	12.20%	13.00%	2.18%	2.10%	2.27%	2.18%	1.27%	1.27%	3.92%	3.56%	309.13%	279.83%	12.54%	13.00%	9.57%	9.82%	8.39%	8.51%
42	Dongguan Rural Commercial Bank Co., Ltd.	RMB	13.98%	15.68%	2.07%	2.20%	2.24%	2.38%	0.82%	1.00%	3.06%	3.88%	375.13%	389.57%	14.00%	15.30%	11.57%	12.65%	11.54%	12.63%
43	Bank of Zhengzhou Co., Ltd.	RMB	8.37%	9.30%	2.46%	2.29%	2.40%	2.16%	2.08%	2.37%	3.33%	3.79%	160.44%	159.85%	12.86%	12.11%	10.87%	10.05%	8.92%	7.98%
44	Chengdu Rural Commercial Bank Co., Ltd.	RMB	8.88%	12.13%	1.81%	1.65%	2.15%	1.76%	1.79%	1.76%	3.39%	3.24%	189.37%	184.42%	13.87%	13.37%	12.71%	12.20%	12.70%	12.20%
45	Shenzhen Rural Commercial Bank Co., Ltd.	RMB	13.61%	17.00%	2.51%	2.61%	2.49%	2.50%	1.13%	1.15%	3.38%	3.24%	297.84%	280.97%	14.37%	14.26%	12.20%	11.97%	11.27%	11.88%
46	Bank of Qingdao Co., Ltd.	RMB	8.56%	8.27%	2.14%	2.10%	2.13%	2.13%	1.51%	1.65%	2.56%	2.56%	169.62%	155.09%	14.11%	14.76%	11.31%	11.33%	8.35%	8.36%
47	Jiangxi Bank Co., Ltd.	RMB	5.33%	6.15%	2.07%	2.56%	2.10%	2.62%	1.73%	2.26%	2.97%	3.74%	171.56%	165.65%	12.89%	12.63%	10.30%	9.97%	10.29%	9.96%
48	Bank of Guizhou Co., Ltd.	RMB	10.50%	12.01%	2.44%	2.75%	2.55%	2.82%	1.15%	1.18%	3.84%	3.85%	334.36%	324.95%	13.67%	14.45%	11.63%	12.30%	11.63%	12.30%
49	Hankou Bank Co., Ltd.	RMB	5.07%	11.04%	0.98%	1.45%	1.01%	1.34%	2.93%	1.71%	3.99%	3.41%	136.52%	240.71%	11.82%	12.92%	8.94%	9.49%	8.15%	9.49%
50	Jiangsu Jiangnan Rural Commercial Bank Co., Ltd.	RMB	9.84%	10.40%	2.38%	2.82%	2.42%	2.58%	1.60%	1.69%	3.23%	3.27%	201.90%	193.10%	13.10%	14.23%	9.99%	9.89%	9.01%	9.86%
51	Bank of Jilin Co., Ltd.	RMB	3.77%	4.70%	2.31%	2.41%	2.48%	2.56%	1.89%	4.31%	2.96%	4.41%	156.69%	102.44%	11.96%	11.27%	11.01%	10.49%	11.00%	10.49%
52	Bank of Dalian Co., Ltd.	RMB	3.85%	4.78%	1.42%	1.42%	1.64%	1.66%	3.94%	3.93%	4.75%	4.56%	120.62%	116.05%	11.62%	11.11%	9.21%	8.91%	9.21%	8.91%
53	Bank of Dongguan Co., Ltd.	RMB	12.17%	13.20%	2.11%	2.30%	2.08%	2.27%	1.19%	1.27%	2.60%	2.63%	219.17%	208.03%	14.54%	14.10%	10.03%	9.30%	9.20%	9.30%
54	Bank of Jiujiang Co., Ltd.	RMB	6.58%	7.69%	2.22%	2.24%	2.18%	2.25%	1.55%	1.71%	2.58%	3.12%	165.97%	182.34%	10.71%	11.64%	9.02%	8.97%	9.02%	8.97%
55	Qingdao Rural Commercial Bank Co., Ltd.	RMB	11.11%	12.38%	2.60%	2.75%	2.52%	2.61%	1.44%	1.46%	4.01%	4.54%	278.73%	310.23%	12.32%	12.26%	10.46%	10.49%	9.73%	10.48%
56	Huarong Xiangjiang Bank Corporation Limited	RMB	10.44%	13.13%	2.63%	2.52%	2.78%	2.67%	1.84%	1.57%	2.92%	2.57%	158.30%	163.44%	13.08%	12.61%	10.41%	9.58%	8.61%	9.58%
57	Bank of Hebei Co., Ltd.	RMB	6.22%	8.09%	3.29%	2.66%	2.79%	2.45%	1.98%	1.84%	2.64%	3.12%	133.41%	169.66%	13.32%	13.98%	11.33%	11.34%	10.17%	11.29%
58	Bank of Suzhou Co., Ltd.	RMB	8.96%	9.85%	2.28%	2.42%	2.22%	2.21%	1.38%	1.53%	4.02%	3.42%	291.74%	224.07%	14.21%	14.36%	11.30%	11.34%	11.26%	11.30%
59	Guilin Bank Co., Ltd.	RMB	4.99%	6.31%	1.84%	2.59%	1.64%	2.41%	1.68%	1.75%	2.37%	2.71%	140.67%	154.93%	11.67%	11.84%	9.05%	8.67%	7.74%	8.65%
60	Guangdong Shunde Rural Commercial Bank Co., Ltd.	RMB	9.35%	13.50%	1.81%	2.13%	1.97%	2.18%	0.94%	1.00%	3.14%	3.58%	335.81%	357.93%	14.01%	14.80%	12.87%	13.67%	12.87%	13.67%
61	Bank of Lanzhou Co., Ltd.	RMB	6.24%	6.96%	1.28%	1.90%	1.42%	1.92%	1.75%	2.44%	3.18%	3.91%	181.36%	160.11%	13.26%	11.76%	11.08%	9.50%	9.05%	9.50%
62	Qilu Bank Co., Ltd.	RMB	11.43%	11.43%	2.14%	2.17%	2.15%	2.27%	1.43%	1.49%	3.06%	3.04%	214.60%	204.09%	14.97%	14.72%	11.64%	11.15%	9.49%	10.16%
63	Bank of Kunlun Co., Ltd.	RMB	8.63%	11.31%	1.34%	1.61%	1.30%	1.49%	0.95%	1.09%	3.13%	3.21%	329.97%	293.66%	13.35%	14.11%	12.18%	12.94%	12.18%	12.94%
64	Tianjin Rural Commercial Bank Co., Ltd.	RMB	7.69%	9.14%	2.31%	2.86%	2.33%	2.80%	2.42%	2.45%	3.75%	3.91%	154.86%	159.64%	15.25%	15.14%	11.83%	12.67%	11.82%	12.66%
65	WeBank Co., Ltd.	RMB	26.69%	28.15%	4.19%	3.64%	4.38%	3.83%	1.20%	1.24%	5.17%	5.52%	431.26%	444.31%	12.41%	12.90%	11.36%	11.84%	11.36%	11.84%
66	Bank of Gansu Co., Ltd.	RMB	2.00%	2.05%	1.72%	1.74%	1.97%	1.96%	2.28%	2.45%	2.99%	3.33%	131.23%	135.87%	13.39%	11.83%	12.85%	9.92%	12.85%	9.92%
67	Wuhan Rural Commercial Bank Co., Ltd.	RMB	3.89%	7.10%	1.35%	1.79%	1.36%	1.80%	3.31%	2.78%	5.06%	5.02%	153.04%	180.54%	12.34%	14.21%	9.49%	11.12%	9.46%	11.09%
68	Guangdong Huaxing Bank Co., Ltd.	RMB	13.56%	13.81%	2.27%	2.42%	2.36%	2.58%	0.75%	0.83%	2.47%	2.54%	328.60%	305.47%	11.93%	13.97%	9.34%	9.67%	8.05%	9.67%
69	Chang'An Bank Co., Ltd.	RMB	10.66%	11.18%	2.37%	2.49%	2.46%	1.93%	1.86%	1.77%	3.28%	3.40%	175.80%	191.68%	11.33%	11.61%	8.60%	8.69%	8.60%	8.69%
70	Zhejiang E-Commerce Bank Co., Ltd.	RMB	10.49%	15.81%	2.72%	4.27%	2.99%	3.71%	1.52%	1.31%	4.78%	4.94%	310.90%	376.32%	11.89%	16.44%	10.79%	15.40%	8.86%	15.40%
71	Fudian Bank Co., Ltd.	RMB	2.75%	2.20%	1.62%	1.90%	1.70%	1.98%	2.30%	3.10%	2.91%	4.42%	126.69%	142.66%	13.33%	14.96%	10.15%	11.06%	10.14%	11.05%
72	Bank of Xi'an Co., Ltd.	RMB	11.24%	11.94%	2.01%	2.13%	2.16%	2.27%	1.18%	1.18%	3.18%	3.09%	269.39%	262.41%	14.50%	14.85%	12.37%	12.62%	12.37%	12.62%
73	Hubei Bank Co., Ltd.	RMB	6.08%	8.58%	2.96%	3.83%	2.94%	3.07%	2.49%	1.99%	4.12%	3.59%	165.19%	179.86%	13.11%	14.01%	11.01%	11.80%	11.01%	11.80%
74	Guangxi Beibu Gulf Bank Co., Ltd.	RMB	8.56%	6.98%	1.79%	1.88%	2.01%	2.09%	1.30%	1.47%	2.51%	2.50%	192.22%	170.56%	13.62%	12.79%	10.70%	10.77%	8.97%	10.77%
75	Hangzhou United Rural Commercial Bank Co., Ltd.	RMB	10.79%	11.36%	2.61%	3.26%	2.78%	3.31%	1.05%	1.05%	3.92%	4.29%	372.88%	409.32%	13.92%	14.00%	10.43%	11.14%	10.36%	11.06%
76	Standard Chartered Bank (China) Limited	RMB	6.10%	6.10%	1.57%	1.99%	1.73%	2.16%	0.79%	1.17%	2.41%	2.39%	306.00%	204.00%	17.40%	15.80%	14.50%	15.10%	14.50%	15.10%
77	Bank of Wenzhou Co., Ltd.	RMB	1.74%	5.49%	1.28%	1.89%	1.66%	1.95%	0.94%	1.78%	1.44%	2.73%	153.17%	153.62%	10.75%	11.17%	9.27%	8.53%	9.27%	8.53%
78	Xiamen Bank Co., Ltd.	RMB	11.23%	11.11%	1.53%	1.73%	1.65%	1.67%	0.98%	1.18%	3.61%	3.24%	368.03%	274.58%	14.49%	15.21%	11.97%	11.16%	11.34%	11.15%
79	Longjiang Bank Co., Ltd.	RMB	5.22%	6.88%	1.41%	1.51%	1.53%	1.69%	2.19%	2.05%	3.65%	3.41%	166.70%	166.51%	12.16%	12.19%	9.29%	9.90%	9.29%	9.90%
80	Shanxi Qinnong Rural Commercial Bank Co., Ltd.	RMB	9.43%	9.43%	1.78%	1.17%	2.34%	2.50%	2.73%	3.03%	4.20%	4.50%	160.76%	148.29%	10.86%	14.06%	8.71%	12.98%	8.71%	12.98%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.

Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

03 Commercial banks' financial summary

2020 rankings

	Name of bank	Currency	Total assets (Unit: Million) 2020	Total assets 2019	Net assets attributable to the parent company (Unit: Million) 2020	Net assets attributable to the parent company 2019	Total loans (Unit: Million) 2020	Total loans 2019	Total deposits (Unit: Million) 2020	Total deposits 2019	Operating income (Unit: Million) 2020	Operating income 2019	Net fee income (Unit: Million) 2020	Net fee income 2019	Net interest income (Unit: Million) 2020	Net interest income 2019	Net profit attributable to the parent company (Unit: Million) 2020	Net profit attributable to the parent company 2019	Cost-to-income ratio (% (rounded to 2 decimal places)) 2020	Cost-to-income ratio 2019
81	Bank of Zhangjiakou Co., Ltd.	RMB	277,398	225,475	18,321	14,486	136,798	111,564	212,906	187,457	5,855	6,795	(432)	(328)	6,143	5,662	1,110	1,842	35.53%	28.86%
82	Bank of Luoyang Co., Ltd.	RMB	275,935	273,985	21,263	19,646	125,681	107,594	162,419	151,820	7,527	7,564	151	173	7,504	7,388	1,627	1,797	21.37%	20.65%
83	Bank of Taizhou Co., Ltd.	RMB	275,532	222,960	21,053	18,791	168,908	151,535	207,510	174,152	10,099	9,745	116	159	7,856	7,747	3,569	3,924	37.15%	36.67%
84	Zhejiang Chouzhou Commercial Bank Co., Ltd.	RMB	271,219	234,253	18,795	17,539	128,521	112,239	181,928	149,516	6,905	6,560	(476)	(363)	4,009	3,430	1,612	1,749	32.97%	32.13%
85	Jinshang Bank Co., Ltd.	RMB	270,944	247,571	21,014	20,135	136,691	115,973	176,782	155,322	4,868	5,089	713	611	3,441	3,259	1,567	1,484	36.01%	34.79%
86	Weihai City Commercial Bank Co., Ltd.	RMB	267,602	224,636	17,906	14,399	120,293	92,452	179,589	144,234	6,034	4,947	464	272	4,658	3,306	1,510	1,440	25.08%	28.68%
87	Zhejiang Tailong Commercial Bank Co., Ltd.	RMB	258,073	207,775	20,523	15,842	166,301	135,626	179,959	140,565	10,170	9,613	114	695	8,333	7,255	2,897	3,155	46.73%	44.90%
88	Guangdong Nanyue Bank Co., Ltd.	RMB	240,579	206,268	18,051	16,849	122,412	109,830	167,902	154,612	4,938	5,648	389	548	4,379	4,970	1,535	1,637	37.81%	38.22%
89	Chongqing Three Gorges Bank Co., Ltd.	RMB	236,763	208,385	19,183	15,442	103,067	85,333	153,262	133,809	4,543	4,492	184	196	3,958	3,502	1,504	1,605	28.23%	30.61%
90	China Resources Bank of Zhuhai Co., Ltd.	RMB	235,226	201,623	19,168	15,823	127,068	105,232	161,665	133,656	6,642	5,867	421	405	5,872	5,008	1,643	1,746	33.11%	34.39%
91	Bank of Langfang Co., Ltd.	RMB	227,941	209,653	23,328	19,201	123,173	98,143	168,233	153,538	5,377	5,143	46	149	4,945	4,483	1,362	1,512	34.14%	33.10%
92	Sichuan Tianfu Bank Co., Ltd.	RMB	224,691	211,026	17,070	16,366	130,516	114,387	157,276	144,274	4,325	4,776	307	671	3,688	3,831	821	1,433	43.89%	38.11%
93	Guangdong Nanhai Rural Commercial Bank Co., Ltd.	RMB	224,067	200,712	21,024	19,614	112,830	96,765	168,497	148,234	5,303	5,611	317	321	4,145	4,311	2,934	3,228	32.36%	31.99%
94	Bank of Ganzhou Co., Ltd.	RMB	221,695	169,414	14,439	11,917	123,306	92,997	179,513	134,772	4,099	3,733	353	264	1,503	1,476	983	933	32.13%	30.04%
95	Jiangsu Zijin Rural Commercial Bank Co., Ltd.	RMB	217,664	201,319	14,815	13,749	120,878	102,148	150,614	133,512	4,477	4,675	126	224	3,840	4,033	1,441	1,417	30.36%	29.69%
96	Bank of Rizhao Co., Ltd.	RMB	210,154	166,986	16,206	12,757	107,895	83,533	158,654	121,244	5,844	4,935	404	243	5,291	4,526	899	865	25.97%	26.33%
97	Jiangsu Changshu Rural Commercial Bank Co., Ltd.	RMB	208,685	184,839	17,960	16,925	132,088	110,274	162,485	138,079	6,582	6,445	148	214	5,966	5,800	1,803	1,785	42.77%	38.24%
98	Zhejiang Xiaoshan Rural Commercial Bank Co., Ltd.	RMB	203,345	176,418	15,572	14,522	117,556	100,560	156,665	136,483	4,955	4,883	277	254	2,457	2,507	1,522	1,426	22.42%	20.70%
99	Bank of Tangshan Co., Ltd.	RMB	201,243	190,741	17,387	16,599	87,617	72,497	149,019	127,224	3,510	2,986	3	6	3,070	2,528	1,356	1,550	25.27%	29.66%
100	Jilin Jiutai Rural Commercial Bank Company Limited	RMB	200,363	173,276	13,672	13,340	130,076	96,104	149,763	122,840	5,547	5,311	231	316	5,098	4,165	1,104	1,042	47.96%	51.08%
101	Citibank (China) Co., Ltd.	RMB	196,854	177,853	23,027	21,468	63,450	66,579	149,043	139,499	5,584	5,946	1,033	1,076	2,086	2,510	1,728	2,072	Not disclosed	Not disclosed
102	Tianjin Binhai Rural Commercial Bank Co., Ltd.	RMB	191,507	164,080	15,527	15,326	100,176	85,234	143,048	111,244	2,464	2,354	(492)	(387)	2,588	2,663	211	476	49.61%	51.78%
103	Zhejiang Mintai Commercial Bank Co., Ltd.	RMB	184,365	157,242	12,272	10,673	118,135	95,982	129,262	106,805	5,057	4,778	340	475	3,031	2,633	702	763	50.98%	51.81%
104	Bank of East Asia (China) Limited	RMB	183,449	195,683	21,119	22,135	93,085	108,687	110,845	121,583	4,484	5,674	654	693	3,681	4,650	(902)	(1,706)	61.11%	60.04%
105	Bank of Handan Co., Ltd.	RMB	183,312	172,972	9,799	9,472	75,224	68,876	147,328	130,957	2,620	3,025	3	6	1,585	1,960	836	933	44.54%	48.14%
106	Fujian Haixia Bank Co., Ltd.	RMB	181,574	162,454	13,423	13,206	88,774	72,392	103,927	88,627	3,753	3,017	543	527	3,135	2,515	460	510	34.31%	39.14%
107	Wuxi Rural Commercial Bank Co., Ltd.	RMB	180,018	161,912	13,979	11,649	99,852	85,067	145,293	131,358	3,896	3,540	176	92	3,277	2,964	1,312	1,250	26.92%	29.66%
108	Bank of Weifang Co., Ltd.	RMB	175,647	144,348	13,628	9,875	82,870	66,547	131,115	102,940	4,314	4,150	130	138	978	975	800	819	34.42%	31.50%
109	Ningbo Yinzhou Rural Commercial Bank Co., Ltd.	RMB	152,954	129,231	14,534	13,501	95,514	82,715	112,030	97,309	3,489	3,568	189	257	2,702	2,827	1,417	1,662	33.38%	33.03%
110	Bank of Urumqi Co., Ltd.	RMB	171,484	158,520	15,259	14,707	84,106	74,899	107,738	92,911	3,218	3,354	70	57	3,122	3,246	1,190	1,346	32.50%	31.97%
111	Bank of Cangzhou Co., Ltd.	RMB	171,469	160,240	12,356	11,627	100,379	89,329	152,200	140,420	3,759	3,612	5	(1)	3,743	3,604	1,132	1,239	39.16%	39.61%
112	Bank of Liuzhou Co., Ltd.	RMB	167,306	133,236	15,322	15,374	79,863	62,379	109,955	88,824	3,430	3,729	105	129	3,263	3,586	546	495	39.91%	35.26%
113	Bank of Fuxin Co., Ltd.	RMB	165,601	166,743	8,067	10,513	91,466	82,839	140,732	124,955	2,017	2,098	17	35	776	2,069	18	400	56.66%	54.72%
114	Foshan Rural Commercial Bank Co., Ltd.	RMB	162,271	141,935	16,416	13,822	84,577	77,689	130,137	116,394	3,217	2,867	59	23	2,862	2,613	1,381	1,367	40.42%	37.66%
115	Bank of Ningxia Co., Ltd.	RMB	161,309	151,308	12,355	12,050	84,451	76,344	101,449	90,656	3,036	3,410	75	82	2,225	2,117	638	701	41.80%	34.10%
116	Bank of Shangrao Co., Ltd.	RMB	160,552	124,022	10,929	10,613	84,468	63,294	122,443	89,520	3,867	3,545	(133)	(138)	1,822	1,786	730	800	29.87%	29.81%
117	Bank of Chengde Co., Ltd.	RMB	160,516	138,926	8,514	7,695	71,616	65,677	118,714	106,821	3,802	3,196	(474)	(242)	2,118	1,682	1,259	1,199	23.81%	27.01%
118	MUFG Bank (China), Ltd.	RMB	157,645	163,701	21,770	20,935	45,954	50,245	112,920	125,081	3,034	3,648	96	109	1,934	2,294	922	1,294	62.79%	53.74%
119	Bank of Laishang Co., Ltd.	RMB	154,084	134,028	11,927	9,553	89,379	70,354	112,692	95,734	4,084	3,536	(349)	(194)	2,430	1,883	599	545	28.57%	31.47%
120	Bank of Shaoxing Co., Ltd.	RMB	153,881	128,329	9,123	7,209	85,386	67,215	105,525	89,666	3,064	2,381	164	84	2,053	1,370	441	472	33.95%	39.79%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

03 Commercial banks' financial summary

2020 rankings	Name of bank	Currency	Return on average equity % (rounded to 2 decimal places)		Net interest spread % (rounded to 2 decimal places)		Net interest margin % (rounded to 2 decimal places)		Non-performing loan (NPL) ratio % (rounded to 2 decimal places)		Allowance to total loans ratio % (rounded to 2 decimal places)		Provision coverage ratio % (rounded to 2 decimal places)		Capital adequacy ratio % (rounded to 2 decimal places)		Tier 1 capital adequacy ratio % (rounded to 2 decimal places)		Core tier 1 capital adequacy ratio % (rounded to 2 decimal places)	
			2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
81	Bank of Zhangjiakou Co., Ltd.	RMB	6.77%	13.24%	3.78%	4.01%	3.20%	2.72%	2.06%	1.84%	2.86%	2.83%	139.65%	154.16%	12.22%	11.55%	10.42%	8.53%	9.09%	8.52%
82	Bank of Luoyang Co., Ltd.	RMB	7.96%	9.52%	3.87%	3.99%	3.50%	3.59%	1.82%	2.08%	3.70%	4.32%	202.93%	207.65%	14.10%	14.70%	11.76%	11.02%	11.68%	10.95%
83	Bank of Taizhou Co., Ltd.	RMB	19.48%	23.96%	3.12%	3.74%	3.95%	4.66%	1.23%	0.65%	2.71%	2.51%	220.91%	386.00%	15.48%	14.49%	12.55%	11.21%	11.58%	10.05%
84	Zhejiang Chouzhou Commercial Bank Co., Ltd.	RMB	8.88%	10.42%	2.75%	3.10%	2.16%	3.03%	1.46%	1.51%	2.93%	3.02%	201.05%	200.63%	14.04%	13.29%	9.73%	9.82%	9.73%	9.82%
85	Jinshang Bank Co., Ltd.	RMB	7.63%	8.20%	1.59%	1.69%	1.54%	1.62%	1.84%	1.86%	3.58%	3.71%	194.06%	199.92%	11.72%	13.60%	10.72%	11.47%	10.72%	11.47%
86	Weihai City Commercial Bank Co., Ltd.	RMB	8.42%	10.27%	1.88%	1.83%	1.99%	1.74%	1.47%	1.80%	2.56%	2.99%	173.39%	165.50%	15.18%	16.03%	11.53%	11.78%	9.88%	9.76%
87	Zhejiang Tailong Commercial Bank Co., Ltd.	RMB	15.87%	21.57%	3.58%	4.12%	4.39%	4.88%	0.95%	1.10%	2.66%	2.54%	279.29%	230.36%	15.80%	15.54%	11.30%	10.36%	9.91%	10.35%
88	Guangdong Nanyue Bank Co., Ltd.	RMB	8.78%	10.25%	2.72%	3.35%	2.40%	3.16%	1.15%	1.50%	3.39%	3.71%	292.70%	247.42%	12.89%	12.03%	11.03%	10.01%	11.02%	10.01%
89	Chongqing Three Gorges Bank Co., Ltd.	RMB	9.24%	11.01%	1.85%	2.08%	2.14%	1.94%	1.30%	1.31%	2.24%	2.22%	172.38%	169.25%	14.34%	13.47%	11.36%	9.84%	9.75%	9.84%
90	China Resources Bank of Zhuhai Co., Ltd.	RMB	9.41%	12.08%	2.78%	2.80%	2.89%	2.90%	1.81%	1.84%	3.97%	3.72%	220.13%	201.90%	14.62%	13.67%	12.18%	11.08%	10.89%	11.08%
91	Bank of Langfang Co., Ltd.	RMB	5.85%	7.90%	2.07%	1.99%	2.29%	2.20%	2.03%	1.98%	3.21%	3.21%	157.97%	162.30%	16.07%	13.90%	14.00%	11.90%	12.18%	11.90%
92	Sichuan Tianfu Bank Co., Ltd.	RMB	4.88%	9.01%	2.71%	1.67%	2.19%	1.90%	2.00%	1.99%	3.16%	3.24%	157.92%	162.70%	12.20%	12.00%	8.82%	9.45%	8.77%	9.38%
93	Guangdong Nanhai Rural Commercial Bank Co., Ltd.	RMB	14.57%	17.67%	1.83%	2.14%	1.99%	2.29%	1.05%	1.06%	3.28%	3.45%	312.90%	324.41%	15.66%	18.30%	14.52%	15.22%	14.52%	15.22%
94	Bank of Ganzhou Co., Ltd.	RMB	8.09%	9.64%	0.65%	0.84%	0.80%	2.22%	1.80%	1.26%	2.48%	2.35%	138.00%	186.80%	11.88%	13.91%	10.37%	11.50%	8.93%	11.50%
95	Jiangsu Zijin Rural Commercial Bank Co., Ltd.	RMB	10.14%	10.80%	1.77%	2.00%	1.91%	2.12%	1.68%	1.68%	3.70%	3.99%	220.15%	236.95%	16.81%	14.78%	11.19%	11.07%	11.19%	11.07%
96	Bank of Rizhao Co., Ltd.	RMB	6.10%	6.77%	2.65%	2.71%	2.84%	2.90%	1.63%	1.89%	3.27%	3.47%	199.90%	183.64%	12.04%	11.89%	9.96%	9.72%	8.05%	9.71%
97	Jiangsu Changshu Rural Commercial Bank Co., Ltd.	RMB	10.34%	11.52%	3.01%	3.25%	3.18%	3.45%	0.96%	0.96%	4.66%	4.63%	485.33%	481.28%	13.53%	15.10%	11.13%	12.49%	11.08%	12.44%
98	Zhejiang Xiaoshan Rural Commercial Bank Co., Ltd.	RMB	10.12%	10.31%	1.28%	2.62%	1.40%	1.63%	1.03%	1.00%	6.34%	6.00%	613.99%	590.92%	15.39%	15.13%	12.78%	13.10%	12.78%	13.10%
99	Bank of Tangshan Co., Ltd.	RMB	7.98%	9.68%	2.58%	2.77%	2.04%	1.35%	1.47%	1.30%	5.01%	4.54%	340.02%	351.10%	13.50%	14.70%	12.38%	13.61%	12.38%	13.61%
100	Jilin Jiutai Rural Commercial Bank Company Limited	RMB	8.18%	7.93%	2.58%	2.74%	2.75%	2.75%	1.63%	1.68%	2.69%	2.82%	164.82%	167.58%	11.37%	11.98%	9.15%	9.66%	9.05%	9.55%
101	Citibank (China) Co., Ltd.	RMB	7.77%	10.13%	Not disclosed	Not disclosed	Not disclosed	Not disclosed	0.63%	0.47%	2.60%	2.28%	410.64%	488.89%	21.00%	20.44%	20.00%	19.42%	20.00%	19.42%
102	Tianjin Binhai Rural Commercial Bank Co., Ltd.	RMB	1.37%	3.45%	2.14%	2.06%	1.79%	1.47%	2.08%	2.24%	2.72%	3.64%	130.96%	162.63%	13.65%	15.04%	10.02%	10.56%	10.02%	10.56%
103	Zhejiang Mintai Commercial Bank Co., Ltd.	RMB	6.28%	7.60%	2.35%	2.67%	2.09%	3.03%	1.55%	1.68%	2.48%	2.86%	159.73%	168.95%	12.37%	11.45%	9.28%	9.20%	9.25%	9.17%
104	Bank of East Asia (China) Limited	RMB	-4.17%	-7.76%	1.78%	2.07%	2.05%	2.39%	1.88%	1.75%	2.82%	2.64%	150.02%	150.91%	16.54%	15.84%	14.84%	14.24%	14.84%	14.24%
105	Bank of Handan Co., Ltd.	RMB	8.82%	10.49%	0.89%	1.68%	0.94%	1.23%	1.90%	2.18%	3.34%	3.50%	175.63%	160.49%	11.22%	12.12%	8.64%	9.39%	8.64%	9.39%
106	Fujian Haixia Bank Co., Ltd.	RMB	3.45%	4.15%	2.48%	2.24%	1.87%	1.62%	1.49%	1.55%	2.43%	2.50%	163.24%	161.31%	12.74%	14.12%	10.51%	11.71%	10.51%	11.71%
107	Wuxi Rural Commercial Bank Co., Ltd.	RMB	10.84%	11.22%	1.90%	1.79%	2.07%	2.02%	1.10%	1.21%	3.92%	3.50%	355.88%	288.18%	15.21%	15.85%	10.20%	10.20%	9.03%	10.20%
108	Bank of Weifang Co., Ltd.	RMB	6.81%	8.65%	1.00%	1.27%	0.74%	2.97%	1.23%	1.78%	2.10%	2.63%	171.08%	147.66%	13.55%	13.14%	11.28%	9.33%	8.78%	9.33%
109	Ningbo Yinzhou Rural Commercial Bank Co., Ltd.	RMB	10.13%	13.02%	1.48%	1.80%	1.76%	2.71%	1.11%	0.76%	3.10%	3.93%	236.10%	380.54%	16.24%	17.32%	14.03%	14.66%	14.03%	14.66%
110	Bank of Urumqi Co., Ltd.	RMB	7.94%	9.43%	2.12%	2.46%	2.14%	1.85%	1.72%	1.84%	3.21%	3.96%	186.84%	214.69%	19.05%	18.55%	16.79%	16.29%	16.79%	16.29%
111	Bank of Cangzhou Co., Ltd.	RMB	9.42%	11.10%	2.10%	2.22%	2.31%	2.41%	2.15%	2.27%	3.74%	3.78%	174.19%	167.01%	13.73%	13.94%	11.46%	11.58%	11.46%	11.58%
112	Bank of Liuzhou Co., Ltd.	RMB	3.56%	3.28%	1.91%	2.37%	2.24%	2.68%	1.84%	2.87%	3.78%	4.74%	205.31%	164.95%	14.31%	15.74%	13.10%	14.55%	12.83%	14.53%
113	Bank of Fuxin Co., Ltd.	RMB	0.19%	3.82%	1.02%	1.05%	1.27%	1.31%	4.07%	1.98%	5.58%	2.99%	Not disclosed	184.78%	11.02%	11.05%	8.51%	8.53%	8.51%	8.53%
114	Foshan Rural Commercial Bank Co., Ltd.	RMB	9.13%	13.30%	1.83%	2.40%	1.98%	2.49%	1.15%	0.89%	2.89%	3.96%	251.20%	353.36%	21.12%	20.59%	18.23%	17.54%	18.23%	17.54%
115	Bank of Ningxia Co., Ltd.	RMB	5.23%	5.93%	2.00%	1.95%	2.14%	2.12%	3.54%	3.82%	4.96%	5.76%	140.04%	150.88%	12.80%	13.29%	9.81%	10.11%	9.81%	10.11%
116	Bank of Shangrao Co., Ltd.	RMB	7.23%	9.74%	1.59%	2.07%	1.48%	3.14%	1.84%	2.85%	5.33%	5.38%	289.60%	188.66%	12.18%	14.89%	10.13%	12.59%	10.13%	12.59%
117	Bank of Chengde Co., Ltd.	RMB	15.18%	17.05%	1.31%	1.15%	1.45%	2.57%	1.86%	1.84%	3.84%	3.22%	206.70%	174.52%	14.03%	13.01%	10.92%	10.49%	10.90%	10.48%
118	MUFG Bank (China), Ltd.	RMB	4.32%	6.38%	Not disclosed	1.34%	Not disclosed	1.50%	Not disclosed	Not disclosed	2.67%	2.71%	Not disclosed	Not disclosed	21.74%	20.51%	20.64%	Not disclosed	20.64%	Not disclosed
119	Bank of Laishang Co., Ltd.	RMB	5.58%	5.87%	2.08%	2.19%	1.96%	2.92%	1.90%	2.41%	3.26%	3.47%	166.15%	156.26%	13.06%	12.20%	10.29%	9.22%	8.61%	9.16%
120	Bank of Shaoxing Co., Ltd.	RMB	5.42%	6.72%	2.11%	2.12%	1.79%	1.54%	1.30%	1.67%	3.00%	2.66%	231.11%	159.02%	13.07%	11.23%	8.94%	8.62%	8.93%	8.61%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

03 Commercial banks' financial summary

2020 rankings

	Name of bank	Currency	Total assets (Unit: Million) 2020	Total assets 2019	Net assets attributable to the parent company (Unit: Million) 2020	Net assets attributable to the parent company 2019	Total loans (Unit: Million) 2020	Total loans 2019	Total deposits (Unit: Million) 2020	Total deposits 2019	Operating income (Unit: Million) 2020	Operating income 2019	Net fee income (Unit: Million) 2020	Net fee income 2019	Net interest income (Unit: Million) 2020	Net interest income 2019	Net profit attributable to the parent company (Unit: Million) 2020	Net profit attributable to the parent company 2019	Cost-to-income ratio (% (rounded to 2 decimal places)) 2020	Cost-to-income ratio 2019
121	Sumitomo Mitsui Banking Corporation (China) Limited	RMB	153,685	132,055	20,230	19,366	42,824	44,627	103,532	92,859	2,407	2,925	58	78	1,178	1,501	941	1,559	50.18%	43.42%
122	Bank of Qishang Co., Ltd.	RMB	150,138	131,851	13,053	12,849	95,201	81,317	122,079	110,704	2,622	2,743	102	129	2,509	2,555	560	594	46.49%	44.21%
123	Changsha Rural Commercial Bank Co., Ltd.	RMB	148,104	132,931	15,013	14,698	77,680	68,083	105,281	92,931	3,716	3,521	199	160	3,469	3,318	1,201	1,403	34.16%	34.47%
124	Mizuho Bank (China), Ltd.	RMB	146,452	127,818	17,550	16,789	51,263	50,364	99,386	91,197	2,153	2,884	61	88	1,166	1,489	836	1,453	52.97%	40.51%
125	Zhongshan Rural Commercial Bank Co., Ltd.	RMB	144,715	125,229	9,265	8,302	73,134	65,328	106,622	95,935	3,262	3,249	119	101	2,918	2,937	1,455	1,262	37.45%	38.66%
126	Jiangsu Zhangjiagang Rural Commercial Bank Co., Ltd.	RMB	143,818	123,045	11,205	10,668	85,034	71,549	109,794	92,892	4,195	3,853	(10)	7	3,601	3,183	1,001	954	31.27%	31.15%
127	Nanyang Commercial Bank (China) Limited	RMB	142,951	140,138	14,647	14,324	82,355	73,359	96,372	95,625	2,655	2,632	317	315	1,872	1,715	552	805	42.79%	46.45%
128	Jiangsu Jiangyin Rural Commercial Bank Co., Ltd.	RMB	142,766	126,343	12,131	11,757	80,367	70,311	105,759	95,288	3,351	3,404	100	99	2,559	2,472	1,057	1,013	31.47%	31.66%
129	Jiangsu Suzhou Rural Commercial Bank Co., Ltd.	RMB	139,440	125,955	12,020	11,512	78,706	68,395	106,725	95,956	3,753	3,521	130	128	3,003	2,931	951	913	32.72%	34.61%
130	Haikou Rural Commercial Bank Co., Ltd.	RMB	138,612	124,155	8,567	8,469	66,071	55,495	101,174	88,562	3,698	3,337	132	133	3,225	2,670	492	753	41.96%	33.96%
131	Zhejiang Hangzhou Yuhang Rural Commercial Bank Co., Ltd.	RMB	134,725	129,615	9,327	7,599	76,280	63,052	117,408	98,641	3,322	3,119	8	24	1,997	1,946	950	929	28.59%	29.53%
132	DBS Bank (China) Limited	RMB	134,468	122,936	11,976	11,848	42,331	47,838	64,401	62,294	2,705	2,735	285	289	1,748	1,449	175	703	62.36%	63.70%
133	Xiamen Rural Commercial Bank Co., Ltd.	RMB	130,933	127,443	10,020	9,927	65,308	56,876	104,291	96,607	3,350	3,666	(131)	(116)	2,923	3,141	829	1,179	29.67%	27.86%
134	Zhejiang Shaoxing Ruifeng Rural Commercial Bank Co., Ltd.	RMB	129,516	109,919	11,253	10,450	76,629	63,846	90,735	80,520	3,009	2,860	(167)	(125)	2,982	2,671	1,105	1,038	32.86%	32.66%
135	Yunnan Hongta Bank Co., Ltd.	RMB	129,361	113,716	11,606	11,238	46,149	36,063	97,140	84,654	2,012	2,061	119	110	1,440	1,353	791	727	33.73%	33.43%
136	Bank of Quanzhou Co., Ltd.	RMB	128,895	106,988	8,427	7,186	65,113	52,947	91,758	76,942	2,780	2,452	(203)	(17)	2,525	2,257	323	349	35.85%	35.80%
137	Dongying Bank Co., Ltd.	RMB	127,662	109,223	10,963	8,248	64,768	53,193	99,163	81,653	2,424	2,171	100	96	2,222	2,035	448	418	34.86%	37.47%
138	Mianyang City Commercial Bank Co., Ltd.	RMB	126,078	106,328	8,448	6,011	63,454	50,785	77,992	64,064	3,138	2,617	167	129	1,314	979	594	666	29.35%	31.34%
139	Leshan City Commercial Bank Co., Ltd.	RMB	125,086	110,169	10,728	9,298	57,584	45,315	72,390	56,390	2,543	2,368	(45)	(22)	2,545	2,336	464	525	36.10%	36.25%
140	Bank of Jining Co., Ltd.	RMB	123,865	102,568	9,652	7,074	70,404	56,203	95,040	78,193	3,140	3,280	(1,010)	(760)	4,146	3,999	597	568	27.80%	26.20%
141	The Chinese Merchandise Bank, Ltd.	RMB	123,779	126,743	13,510	13,087	58,745	57,024	26,502	31,248	1,990	1,971	145	106	2,089	1,945	819	1,140	18.48%	18.33%
142	Bank of Xingtai Co., Ltd.	RMB	121,943	103,117	6,989	6,926	68,096	59,007	103,644	87,954	2,143	2,616	(29)	18	2,086	2,527	211	215	42.16%	36.98%
143	Jiangsu Kunshan Rural Commercial Bank Co., Ltd.	RMB	121,383	104,209	10,412	9,415	66,982	55,381	84,015	81,616	3,891	3,730	273	82	2,839	2,856	1,218	1,186	28.93%	32.72%
144	Bank of Qinhuangdao Co., Ltd.	RMB	121,340	102,903	5,831	5,411	50,151	38,348	103,935	91,175	2,037	1,731	8	31	764	427	559	628	32.74%	34.63%
145	Hang Seng Bank (China) Limited	RMB	119,405	101,733	11,564	10,817	64,650	63,649	47,013	44,029	2,409	2,260	348	300	1,969	1,742	833	878	48.40%	53.12%
146	Luzhou Bank Co., Ltd.	RMB	118,886	91,681	8,949	6,890	59,624	44,759	85,223	61,437	3,155	2,807	5	5	2,756	2,718	576	634	36.09%	35.95%
147	Dalian Rural Commercial Bank Co., Ltd.	RMB	118,162	107,919	8,280	8,213	64,973	60,499	100,568	87,630	1,674	1,816	(23)	9	1,327	1,286	53	61	65.30%	62.23%
148	Fubon Bank (China) Co., Ltd.	RMB	116,577	94,766	6,286	6,099	46,841	40,447	92,870	71,082	1,571	1,378	(160)	2	1,758	1,225	436	331	54.64%	59.26%
149	Yantai Bank Co., Ltd.	RMB	116,427	103,840	7,752	6,105	51,653	46,303	83,824	66,148	2,159	2,278	65	27	2,003	2,159	216	206	48.35%	39.00%
150	Guiyang Rural Commercial Bank Co., Ltd.	RMB	116,112	103,377	4,732	4,487	64,286	58,137	90,026	75,345	3,141	2,828	83	(4)	2,213	1,975	341	311	28.98%	37.25%
151	Bank of Baoding Co., Ltd.	RMB	113,253	102,989	8,740	8,428	51,275	41,350	86,751	72,168	2,860	2,611	62	279	1,226	828	1,073	1,203	25.88%	23.37%
152	Bank of Pingdingshan Co., Ltd.	RMB	113,239	101,860	8,529	7,364	58,162	47,544	89,652	76,391	2,564	2,197	40	30	2,518	2,098	179	151	41.66%	40.86%
153	Jiangmen Rural Commercial Bank Co., Ltd.	RMB	112,704	107,009	12,329	11,975	57,537	50,356	86,954	79,764	2,709	2,700	55	57	2,468	2,441	1,086	1,312	37.49%	39.75%
154	Bank of Qinghai Co., Ltd.	RMB	108,606	106,644	9,030	9,170	60,608	55,365	73,932	70,302	2,185	2,398	(119)	(124)	1,419	2,385	486	460	30.93%	27.61%
155	Bank of Linshang Co., Ltd.	RMB	107,945	88,405	8,572	7,961	70,585	56,858	89,701	74,447	2,862	2,489	35	27	1,964	1,703	452	443	34.79%	41.40%
156	Ningbo Commerce Bank Co., Ltd.	RMB	107,877	96,852	8,475	8,224	46,872	39,797	67,951	61,339	2,713	2,394	61	62	2,577	2,244	766	833	39.99%	35.97%
157	Bank of Chaoyang Co., Ltd.	RMB	105,231	101,712	6,259	5,931	53,848	48,330	83,519	76,612	1,415	1,255	20	39	1,398	1,206	294	400	38.48%	43.19%
158	Bank of Jiaxing Co., Ltd.	RMB	104,673	82,336	5,577	5,153	56,817	43,775	74,567	56,040	2,546	2,374	119	88	1,768	2,098	641	669	38.75%	31.93%
159	Hefei Science & Technology Rural Commercial Bank Co., Ltd.	RMB	104,502	102,462	7,767	7,343	48,784	43,793	68,745	63,501	2,048	1,816	64	45	1,945	1,722	750	832	27.67%	32.31%
160	Bank of China Travel Service Co., Ltd. Jiaozuo	RMB	101,221	93,122	7,887	7,823	54,901	46,091	64,472	56,788	2,186	2,173	107	67	1,982	2,020	183	265	34.66%	34.01%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.

Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

03 Commercial banks' financial summary

2020 rankings

	Name of bank	Currency	Return on average equity % (rounded to 2 decimal places)		Net interest spread % (rounded to 2 decimal places)		Net interest margin % (rounded to 2 decimal places)		Non-performing loan (NPL) ratio % (rounded to 2 decimal places)		Allowance to total loans ratio % (rounded to 2 decimal places)		Provision coverage ratio % (rounded to 2 decimal places)		Capital adequacy ratio % (rounded to 2 decimal places)		Tier 1 capital adequacy ratio % (rounded to 2 decimal places)		Core tier 1 capital adequacy ratio % (rounded to 2 decimal places)	
			2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
121	Sumitomo Mitsui Banking Corporation (China) Limited	RMB	4.75%	8.39%	0.61%	0.98%	0.85%	1.20%	0.00%	0.00%	1.63%	1.67%	N/A	N/A	21.31%	20.94%	20.61%	20.18%	20.61%	20.18%
122	Bank of Qishang Co., Ltd.	RMB	4.22%	4.65%	1.99%	2.44%	1.99%	2.42%	1.48%	1.80%	1.97%	3.06%	133.09%	170.27%	12.29%	14.35%	10.75%	12.07%	10.72%	12.04%
123	Changsha Rural Commercial Bank Co., Ltd.	RMB	8.05%	9.81%	2.35%	2.49%	2.56%	2.72%	1.40%	1.42%	3.15%	3.19%	217.43%	212.26%	14.70%	17.04%	13.54%	15.90%	13.54%	15.90%
124	Mizuho Bank (China), Ltd.	RMB	4.87%	9.05%	0.73%	1.07%	0.90%	1.25%	0.04%	0.04%	1.61%	2.01%	3786.96%	4935.18%	16.64%	16.96%	15.91%	16.04%	15.91%	16.04%
125	Zhongshan Rural Commercial Bank Co., Ltd.	RMB	16.56%	16.00%	2.14%	2.54%	2.24%	2.61%	0.90%	0.96%	4.80%	4.58%	533.22%	477.25%	14.74%	15.43%	11.71%	12.11%	11.71%	12.11%
126	Jiangsu Zhangjiagang Rural Commercial Bank Co., Ltd.	RMB	9.15%	9.22%	2.53%	2.51%	2.74%	2.74%	1.17%	1.38%	3.61%	3.47%	307.83%	252.14%	13.75%	15.10%	10.35%	11.02%	10.35%	11.02%
127	Nanyang Commercial Bank (China) Limited	RMB	3.81%	5.78%	1.10%	0.93%	1.34%	1.18%	0.86%	0.84%	2.00%	1.58%	233.52%	188.45%	16.58%	17.37%	15.57%	16.71%	15.57%	16.71%
128	Jiangsu Jiangyin Rural Commercial Bank Co., Ltd.	RMB	8.85%	9.10%	1.94%	2.20%	2.19%	2.46%	1.78%	1.83%	4.02%	4.61%	224.27%	259.13%	14.48%	15.29%	13.36%	14.17%	13.34%	14.16%
129	Jiangsu Suzhou Rural Commercial Bank Co., Ltd.	RMB	8.07%	8.44%	2.32%	2.54%	2.50%	2.71%	1.28%	1.33%	3.92%	3.33%	305.31%	249.32%	13.53%	14.67%	11.38%	12.17%	11.38%	12.17%
130	Haikou Rural Commercial Bank Co., Ltd.	RMB	4.46%	7.71%	2.47%	2.04%	2.61%	2.11%	4.59%	3.84%	8.16%	8.13%	177.83%	211.77%	15.09%	15.36%	11.36%	11.60%	11.36%	11.60%
131	Zhejiang Hangzhou Yuhang Rural Commercial Bank Co., Ltd.	RMB	11.23%	12.78%	1.32%	1.51%	1.58%	1.79%	0.84%	0.79%	4.73%	4.87%	559.65%	616.10%	13.93%	13.89%	10.94%	10.59%	9.58%	10.59%
132	DBS Bank (China) Limited	RMB	1.47%	6.13%	1.34%	0.96%	1.54%	1.30%	1.10%	0.70%	2.10%	2.40%	183.20%	360.10%	13.30%	15.40%	12.90%	12.40%	12.90%	12.40%
133	Xiamen Rural Commercial Bank Co., Ltd.	RMB	8.31%	12.34%	2.13%	2.28%	2.31%	2.47%	0.94%	1.01%	2.43%	3.03%	259.07%	301.74%	12.45%	12.90%	10.43%	10.78%	10.43%	10.77%
134	Zhejiang Shaoxing Ruifeng Rural Commercial Bank Co., Ltd.	RMB	10.43%	10.62%	2.27%	2.36%	2.51%	2.56%	1.32%	1.35%	3.09%	3.30%	234.41%	243.84%	18.25%	18.94%	14.67%	15.63%	14.66%	15.62%
135	Yunnan Hongta Bank Co., Ltd.	RMB	6.92%	6.66%	1.20%	1.28%	1.29%	1.38%	0.83%	1.24%	3.08%	3.39%	370.77%	274.49%	17.76%	18.44%	16.76%	17.36%	16.76%	17.36%
136	Bank of Quanzhou Co., Ltd.	RMB	4.14%	4.92%	2.05%	2.11%	2.20%	2.24%	1.43%	1.74%	2.16%	2.61%	151.05%	150.58%	12.56%	12.62%	9.66%	9.39%	7.93%	9.39%
137	Dongying Bank Co., Ltd.	RMB	4.66%	5.62%	2.30%	2.36%	2.20%	2.23%	1.63%	2.05%	Not disclosed	2.91%	Not disclosed	141.90%	13.03%	12.87%	8.63%	9.73%	8.63%	9.73%
138	Mianyang City Commercial Bank Co., Ltd.	RMB	8.22%	11.66%	1.31%	1.22%	1.29%	2.45%	1.94%	1.87%	4.21%	3.24%	216.66%	172.54%	13.04%	11.53%	10.68%	9.05%	8.16%	9.05%
139	Leshan City Commercial Bank Co., Ltd.	RMB	4.61%	5.80%	4.21%	5.31%	3.27%	2.09%	1.69%	2.51%	3.23%	4.07%	190.23%	159.75%	14.34%	16.87%	11.30%	11.24%	11.30%	11.23%
140	Bank of Jining Co., Ltd.	RMB	7.41%	9.95%	4.09%	3.78%	4.07%	4.33%	1.61%	2.12%	2.85%	2.92%	177.16%	153.05%	14.92%	13.71%	12.26%	10.87%	9.81%	10.87%
141	The Chinese Merchandise Bank, Ltd.	RMB	6.16%	9.13%	Not disclosed	Not disclosed	Not disclosed	Not disclosed	1.35%	1.24%	3.21%	2.27%	238.00%	183.48%	16.88%	16.91%	15.71%	16.16%	15.71%	16.16%
142	Bank of Xingtai Co., Ltd.	RMB	3.11%	3.25%	1.59%	2.50%	1.85%	2.68%	2.79%	2.81%	5.00%	4.92%	179.17%	153.49%	13.78%	12.52%	10.46%	11.37%	10.46%	11.37%
143	Jiangsu Kunshan Rural Commercial Bank Co., Ltd.	RMB	12.33%	13.51%	2.92%	3.09%	2.92%	3.12%	1.19%	1.29%	6.26%	5.21%	527.21%	403.77%	15.32%	14.66%	13.00%	12.37%	13.00%	12.37%
144	Bank of Qinhuangdao Co., Ltd.	RMB	10.01%	11.99%	0.50%	0.69%	0.75%	1.85%	1.96%	1.93%	3.05%	3.61%	160.57%	186.40%	12.31%	12.19%	9.00%	9.63%	9.00%	9.63%
145	Hang Seng Bank (China) Limited	RMB	7.43%	8.45%	1.63%	1.62%	1.83%	1.88%	Not disclosed	Not disclosed	2.62%	2.21%	248.00%	536.00%	14.60%	14.10%	13.40%	12.90%	13.40%	12.90%
146	Luzhou Bank Co., Ltd.	RMB	7.11%	9.47%	2.75%	2.85%	2.78%	3.08%	1.83%	0.94%	3.43%	3.28%	187.43%	349.78%	13.87%	12.09%	10.01%	9.31%	8.11%	9.31%
147	Dalian Rural Commercial Bank Co., Ltd.	RMB	0.65%	0.75%	1.47%	1.66%	1.37%	1.46%	4.86%	4.99%	3.17%	3.69%	Not disclosed	Not disclosed	Not disclosed	11.75%	Not disclosed	Not disclosed	Not disclosed	Not disclosed
148	Fubon Bank (China) Co., Ltd.	RMB	7.04%	5.58%	1.59%	1.35%	1.72%	1.52%	0.55%	1.09%	1.87%	1.72%	340.91%	157.95%	13.96%	13.92%	9.81%	10.14%	9.81%	10.14%
149	Yantai Bank Co., Ltd.	RMB	3.12%	3.43%	2.41%	2.99%	2.15%	2.29%	2.41%	2.97%	4.29%	5.30%	178.53%	178.69%	13.47%	12.74%	10.42%	9.30%	8.40%	9.30%
150	Guiyang Rural Commercial Bank Co., Ltd.	RMB	7.40%	7.27%	2.25%	2.45%	2.19%	2.95%	Not disclosed	2.74%	3.77%	3.25%	Not disclosed	120.04%	8.56%	7.81%	6.28%	5.83%	6.28%	5.83%
151	Bank of Baoding Co., Ltd.	RMB	12.27%	14.27%	1.34%	1.13%	2.60%	2.38%	1.96%	2.12%	3.07%	3.30%	156.23%	155.35%	14.93%	16.37%	13.16%	14.49%	13.16%	14.49%
152	Bank of Pingdingshan Co., Ltd.	RMB	2.25%	2.07%	3.05%	3.19%	2.40%	2.95%	2.58%	2.72%	3.93%	4.23%	152.62%	152.91%	10.91%	11.82%	9.90%	10.84%	8.64%	10.84%
153	Jiangmen Rural Commercial Bank Co., Ltd.	RMB	8.79%	11.31%	2.13%	2.24%	2.33%	2.38%	1.47%	1.03%	3.04%	2.98%	206.88%	289.10%	16.07%	18.53%	15.01%	17.42%	15.01%	17.42%
154	Bank of Qinghai Co., Ltd.	RMB	5.30%	5.06%	1.47%	2.90%	1.46%	2.22%	3.24%	2.49%	5.14%	4.29%	158.66%	172.75%	13.53%	13.77%	12.36%	12.62%	12.36%	12.62%
155	Bank of Linshang Co., Ltd.	RMB	5.46%	5.45%	2.18%	2.11%	2.20%	2.91%	1.69%	2.44%	3.73%	3.68%	213.35%	151.08%	12.89%	14.28%	10.37%	11.27%	10.37%	11.27%
156	Ningbo Commerce Bank Co., Ltd.	RMB	9.18%	10.53%	3.25%	2.22%	3.00%	3.02%	1.13%	1.12%	2.69%	2.92%	242.03%	260.82%	12.37%	13.39%	9.50%	10.24%	9.50%	10.24%
157	Bank of Chaoyang Co., Ltd.	RMB	4.82%	6.90%	1.49%	1.58%	1.48%	1.46%	1.94%	1.93%	3.68%	4.04%	190.28%	210.00%	13.84%	13.18%	9.77%	9.15%	9.77%	9.15%
158	Bank of Jiaxing Co., Ltd.	RMB	11.95%	13.84%	1.79%	2.60%	1.95%	2.82%	0.97%	1.12%	5.04%	4.96%	521.41%	442.91%	13.37%	12.81%	8.59%	10.14%	8.57%	10.13%
159	Hefei Science & Technology Rural Commercial Bank Co., Ltd.	RMB	9.93%	11.92%	1.74%	1.60%	1.90%	1.76%	1.83%	1.91%	3.85%	3.75%	210.14%	196.61%	14.14%	12.82%	11.10%	9.91%	11.10%	9.91%
160	Bank of China Travel Service Co., Ltd. Jiaozuo	RMB	2.32%	3.45%	1.23%	1.40%	2.14%	2.51%	2.05%	2.22%	3.10%	3.61%	152.92%	163.07%	13.79%	14.53%	10.38%	10.86%	10.38%	10.86%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.

Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

03 Commercial banks' financial summary

2020 rankings	Name of bank	Currency	Total assets (Unit: Million) 2020	Total assets 2019	Net assets attributable to the parent company (Unit: Million) 2020	Net assets attributable to the parent company 2019	Total loans (Unit: Million) 2020	Total loans 2019	Total deposits (Unit: Million) 2020	Total deposits 2019	Operating income (Unit: Million) 2020	Operating income 2019	Net fee income (Unit: Million) 2020	Net fee income 2019	Net interest income (Unit: Million) 2020	Net interest income 2019	Net profit attributable to the parent company (Unit: Million) 2020	Net profit attributable to the parent company 2019	Cost-to-income ratio (% (rounded to 2 decimal places)) 2020	Cost-to-income ratio 2019
161	Shanxi Yaodu Rural Commercial Bank Co., Ltd.	RMB	75,043	75,615	6,334	6,302	40,699	37,054	51,553	48,131	2,156	2,350	(12)	(2)	2,136	1,867	583	649	34.66%	35.59%
162	Bank of Dandong Co., Ltd.	RMB	91,313	84,590	6,107	5,886	49,093	46,964	76,534	66,862	1,378	1,400	14	31	692	485	221	328	47.34%	48.80%
163	Bank of Fushun Co., Ltd.	RMB	89,590	73,817	7,522	5,379	40,721	32,959	72,845	58,420	1,969	1,476	23	18	1,451	1,200	566	574	27.84%	34.73%
164	Bank of Zigong Co., Ltd.	RMB	88,104	79,184	5,458	5,353	32,053	27,919	77,157	62,536	1,143	1,337	234	46	784	975	107	189	43.20%	33.91%
165	Zhejiang Yiwu Rural Commercial Bank Co., Ltd.	RMB	86,341	70,738	7,644	7,221	51,634	41,563	63,757	55,327	1,978	2,013	4	49	1,057	1,309	655	635	31.89%	34.28%
166	Bank of Huzhou Co., Ltd.	RMB	85,484	71,224	6,178	4,457	43,957	35,770	60,618	51,544	1,800	1,753	4	(152)	1,533	1,764	649	711	39.55%	35.28%
167	Bank of Taian Co., Ltd.	RMB	81,680	65,733	7,662	5,826	41,016	32,766	58,158	48,991	1,927	1,677	(137)	(140)	2,013	1,625	402	510	29.65%	32.46%
168	Hebei Tangshan Rural Commercial Bank Co., Ltd.	RMB	81,524	73,843	5,799	5,748	49,387	44,078	65,516	59,826	1,518	1,268	6	(11)	937	783	314	365	35.15%	45.60%
169	Changchun Rural Commercial Bank Co., Ltd.	RMB	80,132	70,793	5,340	5,360	47,723	36,415	62,147	52,339	1,713	1,893	4	92	987	727	306	459	54.99%	49.24%
170	United Overseas Bank (China) Limited	RMB	80,488	71,856	7,056	6,985	37,056	35,925	36,463	39,506	1,434	1,361	143	172	992	834	109	124	72.40%	78.60%
171	Bank of Dazhou Co., Ltd.	RMB	76,732	69,208	6,786	6,064	28,732	20,297	48,586	43,551	1,747	1,413	119	65	1,619	1,337	398	419	23.08%	25.42%
172	Jiangsu Nantong Rural Commercial Bank Co., Ltd.	RMB	76,241	71,821	6,957	6,765	42,089	34,650	60,809	55,500	1,610	1,635	(120)	(154)	1,603	1,638	412	367	37.61%	34.44%
173	Deutsche Bank (China) Co., Ltd.	RMB	74,955	60,588	8,985	8,991	16,536	17,218	44,133	31,375	1,088	1,573	81	74	650	693	228	289	76.29%	49.94%
174	Bank of Jinhua Co., Ltd.	RMB	73,907	77,661	4,145	4,052	44,414	40,919	56,266	57,280	3,276	3,444	69	56	49	117	93	123	75.70%	51.89%
175	Bank of Hainan Co., Ltd.	RMB	73,085	53,635	5,055	4,679	31,457	21,851	45,984	31,609	1,263	946	32	24	1,234	878	385	214	44.21%	48.65%
176	Jiangsu Suning Bank Co., Ltd.	RMB	72,561	63,901	4,422	4,158	39,890	30,506	57,294	43,687	2,803	1,017	(16)	(65)	3,493	1,817	427	76	25.84%	34.22%
177	Inner Mongolia Hohhot Jingu Rural Commercial Bank Co., Ltd.	RMB	71,028	68,829	5,995	5,716	35,697	33,194	48,565	45,781	1,652	1,766	(6)	45	1,014	1,110	385	412	52.21%	50.31%
178	Jiangsu Haian Rural Commercial Bank Co., Ltd.	RMB	70,854	70,297	7,102	6,535	42,774	37,937	56,422	52,405	1,880	1,830	(7)	(1)	1,747	1,610	684	658	25.31%	26.91%
179	Huizhou Rural Commercial Bank Co., Ltd.	RMB	70,399	61,625	6,034	5,336	38,942	32,753	55,790	48,407	2,126	2,114	26	33	1,960	1,908	830	945	33.68%	32.80%
180	Zhejiang Wenzhou Ouhai Rural Commercial Bank Co., Ltd.	RMB	69,711	59,522	5,493	5,070	43,386	36,653	53,751	48,206	1,688	1,764	(2)	16	1,102	1,198	649	684	40.80%	37.02%
181	Nanchang Rural Commercial Bank Co., Ltd.	RMB	69,167	66,359	6,283	6,256	46,245	41,993	57,451	53,741	1,917	1,934	63	(22)	1,311	1,376	423	486	34.99%	34.72%
182	CITIC aiBank Corporation Limited	RMB	66,473	58,860	6,573	3,245	46,875	37,151	24,563	31,138	1,723	2,390	(9)	4	1,569	2,284	(388)	20	46.72%	39.41%
183	Anhui Maanshan Rural Commercial Bank Co., Ltd.	RMB	65,461	64,390	4,480	4,082	41,361	36,784	52,183	46,634	1,570	1,463	(7)	(10)	1,548	1,431	601	547	32.97%	34.46%
184	Zhejiang Shangyu Rural Commercial Bank Co., Ltd.	RMB	65,096	51,824	5,560	5,237	37,802	30,758	51,539	43,331	1,432	1,416	(26)	(5)	851	869	513	507	32.51%	32.71%
185	Zhuhai Rural Commercial Bank Co., Ltd.	RMB	63,725	60,158	5,506	5,185	33,348	27,912	49,502	45,285	1,602	1,582	30	31	1,416	1,426	510	568	36.39%	37.86%
186	Zhejiang Wenzhou Lucheng Rural Commercial Bank Co., Ltd.	RMB	99,554	81,189	5,860	4,911	67,006	52,955	73,471	61,974	3,592	3,124	96	105	2,570	2,283	1,228	1,022	40.04%	40.78%
187	Zhejiang Fuyang Rural Commercial Bank Co., Ltd.	RMB	61,824	52,189	4,673	4,342	33,889	28,481	47,372	42,177	1,906	1,859	53	45	1,118	1,171	481	463	28.96%	27.54%
188	J.P. Morgan Chase Bank (China) Company Limited	RMB	61,300	47,257	10,121	9,940	10,197	11,915	30,155	24,988	1,154	1,242	54	63	601	660	226	276	71.77%	63.12%
189	Zhejiang Hecheng Rural Commercial Bank Co., Ltd.	RMB	61,181	51,767	4,592	4,264	31,979	24,795	49,694	43,579	1,298	1,176	(3)	15	540	503	496	486	31.20%	34.17%
190	Qujing City Commercial Bank Co., Ltd.	RMB	60,845	54,959	8,283	8,219	32,153	30,131	39,138	31,350	1,363	1,362	(23)	6	354	672	214	218	40.48%	37.90%
191	OCBC Wing Hang Bank (China) Limited	RMB	60,448	54,565	8,115	7,853	24,716	25,081	28,972	26,264	1,253	1,223	128	94	780	754	321	215	73.13%	69.75%
192	Dezhou Bank Co., Ltd.	RMB	60,360	54,489	5,037	4,902	32,836	29,273	52,445	45,078	989	1,364	36	34	385	826	166	180	64.81%	47.75%
193	Zhejiang Wenzhou Longwan Rural Commercial Bank Co., Ltd.	RMB	59,821	49,486	3,676	3,341	35,481	28,901	47,304	39,459	1,516	1,472	18	(14)	1,035	970	509	533	37.29%	35.77%
194	Zhejiang Zhuji Rural Commercial Bank Co., Ltd.	RMB	57,789	47,021	4,362	4,093	33,956	27,689	44,991	38,928	1,393	1,350	51	51	806	790	350	348	27.05%	28.91%
195	Zhejiang Nanxun Rural Commercial Bank Co., Ltd.	RMB	41,921	36,421	3,850	3,590	25,791	21,767	33,645	30,669	1,094	1,112	22	13	721	749	382	365	35.88%	34.48%
196	Hunan Sanxiang Bank Co., Ltd.	RMB	57,070	51,581	3,784	3,441	29,102	22,194	40,980	36,937	1,389	1,258	(8)	(8)	1,112	1,146	367	319	36.68%	36.24%
197	Zhejiang Deqing Rural Commercial Bank Co., Ltd.	RMB	43,450	38,080	4,152	3,780	25,738	22,327	33,303	29,804	1,235	1,189	43	37	803	750	482	480	31.63%	31.79%
198	Jiangsu Qidong Rural Commercial Bank Co., Ltd.	RMB	55,801	52,170	3,676	3,375	33,580	28,618	47,103	43,544	1,269	1,237	15	16	568	543	400	385	30.67%	32.21%
199	KEB Hana Bank (China) Co., Ltd.	RMB	55,062	53,906	6,201	5,904	26,935	22,050	45,243	44,388	1,241	1,023	91	88	968	838	389	196	39.20%	54.60%
200	Jiangsu Rugao Rural Commercial Bank Co., Ltd.	RMB	52,895	50,171	5,343	5,064	29,525	25,609	42,761	40,530	1,432	1,457	28	30	1,218	1,190	452	418	28.28%	31.26%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

03 Commercial banks' financial summary

2020 rankings

No.	Name of bank	Currency	Return on average equity % (rounded to 2 decimal places) 2020	2019	Net interest spread % (rounded to 2 decimal places) 2020	2019	Net interest margin % (rounded to 2 decimal places) 2020	2019	Non-performing loan (NPL) ratio % (rounded to 2 decimal places) 2020	2019	Allowance to total loans ratio % (rounded to 2 decimal places) 2020	2019	Provision coverage ratio % (rounded to 2 decimal places) 2020	2019	Capital adequacy ratio % (rounded to 2 decimal places) 2020	2019	Tier 1 capital adequacy ratio % (rounded to 2 decimal places) 2020	2019	Core tier 1 capital adequacy ratio % (rounded to 2 decimal places) 2020	2019
161	Shanxi Yaodu Rural Commercial Bank Co., Ltd.	RMB	9.22%	10.43%	3.46%	3.22%	3.49%	3.24%	2.44%	2.44%	4.35%	3.99%	178.24%	163.75%	12.40%	11.52%	9.69%	11.08%	9.69%	9.72%
162	Bank of Dandong Co., Ltd.	RMB	3.61%	5.58%	0.64%	0.37%	0.81%	1.99%	2.62%	2.56%	3.81%	3.93%	144.97%	153.05%	12.67%	13.10%	9.76%	9.91%	9.76%	9.91%
163	Bank of Fushun Co., Ltd.	RMB	8.73%	11.02%	1.63%	1.63%	2.29%	2.23%	1.86%	1.29%	3.49%	2.99%	187.55%	232.13%	14.13%	14.04%	10.43%	9.48%	10.43%	9.48%
164	Bank of Zigong Co., Ltd.	RMB	1.98%	3.59%	4.47%	5.75%	1.70%	2.48%	1.98%	1.89%	3.41%	3.77%	172.40%	199.21%	11.43%	11.26%	10.57%	10.29%	10.57%	10.29%
165	Zhejiang Yiwu Rural Commercial Bank Co., Ltd.	RMB	8.81%	9.10%	1.45%	2.30%	1.50%	2.26%	1.18%	1.13%	5.03%	5.83%	425.07%	516.03%	14.68%	16.27%	13.53%	15.13%	13.53%	15.13%
166	Bank of Huzhou Co., Ltd.	RMB	12.26%	18.20%	1.86%	2.48%	2.00%	3.06%	0.84%	1.00%	3.41%	3.52%	405.94%	352.60%	14.38%	13.27%	11.37%	9.88%	9.15%	9.88%
167	Bank of Taian Co., Ltd.	RMB	5.96%	10.39%	2.63%	2.52%	2.84%	2.81%	1.49%	1.89%	2.06%	3.84%	137.78%	202.46%	12.54%	13.36%	12.16%	10.98%	9.69%	10.98%
168	Hebei Tangshan Rural Commercial Bank Co., Ltd.	RMB	5.42%	6.85%	1.13%	1.25%	1.28%	1.26%	2.67%	2.55%	4.20%	4.27%	157.35%	167.41%	14.44%	14.35%	10.55%	10.46%	10.55%	10.46%
169	Changchun Rural Commercial Bank Co., Ltd.	RMB	5.95%	8.66%	1.97%	1.96%	1.61%	2.17%	Not disclosed	1.97%	2.71%	2.96%	Not disclosed	150.03%	Not disclosed	11.83%	Not disclosed	10.24%	Not disclosed	10.24%
170	United Overseas Bank (China) Limited	RMB	1.60%	1.80%	1.34%	1.02%	1.51%	1.26%	0.40%	0.60%	2.40%	2.20%	664.10%	348.50%	16.40%	16.50%	13.40%	13.50%	13.40%	13.50%
171	Bank of Dazhou Co., Ltd.	RMB	6.19%	7.62%	5.69%	5.20%	3.87%	3.30%	1.94%	1.98%	2.94%	3.64%	138.16%	184.47%	13.09%	14.26%	12.69%	13.49%	12.69%	13.49%
172	Jiangsu Nantong Rural Commercial Bank Co., Ltd.	RMB	8.37%	5.64%	1.98%	2.29%	2.21%	2.50%	1.61%	2.12%	3.98%	3.89%	246.71%	183.57%	15.68%	16.38%	14.53%	15.23%	14.53%	15.23%
173	Deutsche Bank (China) Co., Ltd.	RMB	2.54%	3.15%	0.94%	1.13%	1.06%	1.31%	0.11%	0.15%	2.50%	2.50%	2361%	1731%	18.45%	20.45%	17.67%	19.57%	17.67%	19.57%
174	Bank of Jinhua Co., Ltd.	RMB	2.24%	3.05%	0.31%	0.90%	0.08%	1.72%	1.68%	2.00%	2.26%	2.44%	134.90%	121.89%	12.51%	13.37%	8.72%	9.66%	8.72%	9.66%
175	Bank of Hainan Co., Ltd.	RMB	7.88%	5.27%	1.74%	1.72%	1.93%	2.11%	1.29%	0.98%	3.66%	4.24%	283.67%	430.40%	11.54%	14.37%	10.36%	13.19%	10.36%	13.19%
176	Jiangsu Suning Bank Co., Ltd.	RMB	9.96%	1.85%	5.13%	3.48%	5.24%	3.73%	0.94%	0.88%	2.49%	2.51%	263.32%	282.95%	12.00%	12.39%	10.85%	10.45%	10.85%	10.45%
177	Inner Mongolia Hohhot Jingu Rural Commercial Bank Co., Ltd.	RMB	6.42%	2.61%	1.65%	1.82%	2.22%	2.61%	2.30%	2.24%	3.72%	3.61%	161.99%	161.31%	15.45%	16.81%	11.23%	12.56%	11.23%	12.53%
178	Jiangsu Haian Rural Commercial Bank Co., Ltd.	RMB	10.05%	10.62%	2.29%	2.33%	2.52%	2.58%	1.25%	1.27%	4.08%	3.90%	326.53%	307.40%	15.04%	14.96%	13.88%	13.78%	13.88%	13.78%
179	Huizhou Rural Commercial Bank Co., Ltd.	RMB	14.58%	19.76%	2.93%	3.35%	3.03%	3.44%	0.88%	0.78%	3.10%	2.92%	353.35%	373.57%	16.27%	13.78%	12.71%	12.66%	12.71%	12.66%
180	Zhejiang Wenzhou Ouhai Rural Commercial Bank Co., Ltd.	RMB	11.32%	14.17%	1.58%	2.05%	1.77%	2.20%	0.82%	1.03%	3.23%	3.51%	381.12%	339.55%	18.54%	17.76%	14.89%	14.82%	14.97%	14.82%
181	Nanchang Rural Commercial Bank Co., Ltd.	RMB	7.20%	8.43%	1.83%	2.09%	2.00%	2.21%	2.24%	2.41%	3.51%	4.03%	156.56%	167.04%	14.75%	15.61%	12.53%	12.71%	12.53%	12.71%
182	CITIC aiBank Corporation Limited	RMB	-7.91%	0.61%	2.32%	4.94%	2.57%	4.91%	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	16.22%	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed
183	Anhui Maanshan Rural Commercial Bank Co., Ltd.	RMB	14.03%	14.57%	2.26%	2.21%	2.42%	2.42%	Not disclosed	Not disclosed	2.95%	3.00%	Not disclosed	Not disclosed	18.91%	19.94%	16.33%	17.15%	16.33%	17.15%
184	Zhejiang Shangyu Rural Commercial Bank Co., Ltd.	RMB	9.51%	10.09%	1.88%	1.80%	2.50%	1.93%	1.26%	0.97%	3.44%	4.12%	272.88%	424.28%	14.43%	15.83%	12.26%	13.40%	12.26%	13.40%
185	Zhuhai Rural Commercial Bank Co., Ltd.	RMB	9.54%	11.04%	2.24%	2.35%	2.38%	2.48%	1.27%	1.30%	2.87%	3.09%	225.75%	238.04%	16.59%	16.97%	12.33%	12.87%	12.33%	12.87%
186	Zhejiang Wenzhou Lucheng Rural Commercial Bank Co., Ltd.	RMB	21.55%	22.71%	2.90%	3.26%	3.02%	3.39%	Not disclosed	1.25%	2.86%	3.33%	Not disclosed	267.57%	13.13%	14.19%	10.56%	11.32%	10.38%	11.13%
187	Zhejiang Fuyang Rural Commercial Bank Co., Ltd.	RMB	10.67%	11.17%	1.96%	3.00%	2.07%	2.63%	1.17%	1.10%	7.66%	7.39%	654.42%	672.93%	14.26%	15.73%	11.82%	13.67%	11.82%	13.67%
188	J.P. Morgan Chase Bank (China) Company Limited	RMB	2.24%	2.82%	1.07%	1.18%	1.28%	1.52%	Not disclosed	Not disclosed	2.00%	2.36%	Not disclosed	Not disclosed	21.71%	27.54%	21.30%	26.92%	21.30%	26.92%
189	Zhejiang Hecheng Rural Commercial Bank Co., Ltd.	RMB	11.20%	12.00%	0.94%	1.01%	1.03%	2.37%	1.25%	0.92%	4.81%	5.13%	385.75%	559.21%	14.50%	14.58%	11.34%	12.97%	11.34%	12.97%
190	Qujing City Commercial Bank Co., Ltd.	RMB	2.60%	2.70%	0.80%	1.50%	0.74%	1.69%	2.71%	1.96%	5.25%	4.43%	193.98%	225.81%	22.45%	22.64%	21.29%	21.48%	21.29%	21.48%
191	OCBC Wing Hang Bank (China) Limited	RMB	4.02%	2.78%	1.18%	1.02%	1.47%	1.40%	0.52%	0.78%	2.63%	2.60%	502.14%	334.49%	19.61%	20.18%	18.60%	19.15%	18.60%	19.15%
192	Dezhou Bank Co., Ltd.	RMB	3.34%	3.77%	0.72%	1.72%	0.75%	1.80%	2.40%	2.72%	3.07%	4.12%	127.74%	150.98%	11.28%	12.81%	10.81%	11.82%	10.81%	11.82%
193	Zhejiang Wenzhou Longwan Rural Commercial Bank Co., Ltd.	RMB	14.51%	16.95%	1.84%	2.06%	1.98%	2.18%	0.90%	0.83%	3.71%	3.83%	442.33%	501.63%	12.79%	13.83%	10.07%	10.83%	10.07%	10.83%
194	Zhejiang Zhuji Rural Commercial Bank Co., Ltd.	RMB	8.29%	8.79%	1.47%	2.00%	1.56%	2.03%	1.25%	0.99%	7.10%	7.16%	566.43%	721.74%	14.94%	13.75%	12.45%	12.70%	12.45%	12.70%
195	Zhejiang Nanxun Rural Commercial Bank Co., Ltd.	RMB	10.26%	10.48%	2.72%	3.27%	2.91%	3.42%	0.64%	0.68%	3.16%	3.20%	490.59%	467.91%	14.57%	14.87%	11.73%	11.80%	11.73%	11.80%
196	Hunan Sanxiang Bank Co., Ltd.	RMB	10.15%	9.65%	2.15%	2.43%	2.11%	2.59%	1.62%	0.59%	2.28%	2.17%	140.56%	367.29%	11.46%	11.28%	10.88%	10.19%	10.88%	10.19%
197	Zhejiang Deqing Rural Commercial Bank Co., Ltd.	RMB	12.17%	13.33%	2.61%	2.78%	2.75%	3.44%	0.76%	0.65%	4.16%	4.45%	546.35%	686.80%	14.14%	14.08%	13.83%	14.31%	12.36%	11.87%
198	Jiangsu Qidong Rural Commercial Bank Co., Ltd.	RMB	11.26%	12.45%	3.58%	3.72%	2.13%	2.33%	1.99%	1.77%	5.41%	5.03%	272.31%	284.32%	13.92%	15.16%	12.03%	12.17%	12.03%	12.17%
199	KEB Hana Bank (China) Co., Ltd.	RMB	6.37%	3.38%	1.64%	1.52%	2.05%	1.75%	0.42%	0.99%	2.50%	2.50%	592.72%	252.57%	14.34%	14.86%	13.17%	14.00%	13.17%	14.00%
200	Jiangsu Rugao Rural Commercial Bank Co., Ltd.	RMB	8.69%	8.66%	2.12%	2.23%	2.28%	2.37%	1.61%	1.66%	4.70%	4.30%	291.37%	259.54%	16.91%	17.38%	14.35%	14.68%	14.35%	14.68%

The data quoted in this report came from the 2019 and 2020 annual reports publicly released by various banks, their official websites, and Wind, excluding those unavailable by the time this report was finalized.
Note 1: "Total loans" was calculated by adding the loan amounts in the balance sheet and loan loss provisions measured at amortized 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.

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

Contact us

Tony Cheung
Head of Financial Services
+86 (21) 2212 2705
tony.cheung@kpmg.com

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

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

Reynold Liu
Head of Management Consulting / Technology & Innovation
+86 (21) 2212 3626
reynold.jg.liu@kpmg.com

Bonn Liu
Head of Financial Services, Banking and Capital Markets, Hong Kong
+86 (852) 2826 7241
bonn.liu@kpmg.com

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

Tracey Zhang
Financial Services Leader, Tax
+86 (10) 8508 7509
tracy.h.zhang@kpmg.com

Kevin Kang
Chief Economist
+86 (10) 8508 7198
k.kang@kpmg.com

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

Silvester Liu
Partner, Digitalization and FinTech Consulting, Financial Services
+86 (21) 2212 3352
silvester.liu@kpmg.com

Jin Cao
Head of Financial Risk Management Consulting
+86 (755) 2547 3390
jin.cao@kpmg.com

Wilson Pang
Head of Advisory, Southern Region
+86 (755) 2547 4402
wilson.pang@kpmg.com

James Zheng
Head of Information Technology Consulting, Financial Services
+86 (21) 2212 3630
james.zheng@kpmg.com

David Yang
Partner, Financial Risk Management Consulting
+86 (10) 8508 7196
david.yang@kpmg.com

Rong Zheng
Partner, Human Resources Transformation Consulting, Financial Services
+86 (21) 2212 3270
rong.zheng@kpmg.com

Lodge Liu
Head of Financial Management Consulting, Financial Services
+86 (10) 8508 7010
lodge.liu@kpmg.com

Jessica Xu
Head of Governance, Risk and Compliance, Financial Services
+86 (10) 8508 5952
jessica.xu@kpmg.com

Cathy Zhou
Partner, AML and Sanctions Regulatory Compliance, Financial Services
+86 (21) 2212 3289
c.y.zhou@kpmg.com

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

Forrest Wu
Partner, Financial Services
+86 (21) 2212 2876
forrest.wu@kpmg.com

Jason He
Partner, Smart Application
+86 (755) 2547 1129
jason.rk.he@kpmg.com

Phil Yu
Partner, FinTech Enablement Consulting, Financial Services
+86 (21) 2212 3258
phil.yu@kpmg.com

Chris Wang
Head of Regulation and Risk Control Technology Consulting, Financial Services
+86 (10) 8508 7131
chris.wang@kpmg.com

Felix Chen
Head of Data Governance Consulting, Financial Services
+86 (10) 8508 5433
felix.chen@kpmg.com

Richard Zhang
Partner, Information Technology Security Consulting, Financial Services
+86 (21) 2212 3637
richard.zhang@kpmg.com

Frank Li
Partner, Operations Management Consulting, Financial Services
+86 (21) 2212 3676
frank.jw.li@kpmg.com

Travis Du
Director, Financial Strategy Consulting
+86 (21) 2212 2226
travis.du@kpmg.com

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

Alex Pan
Director, Financial Management Consulting, Financial Services
+86 (21) 2212 4881
alex.pan@kpmg.com

Ivan Li
Head of Financial Services, Southern Region
+86 (755) 2547 1218
ivan.li@kpmg.com

Christy Ye
Partner, Financial Services
+86 (20) 3813 7822
christy.yh.ye@kpmg.com

Andrew Huang
Head of FinTech
+86 (10) 8508 7920
andrew.huang@kpmg.com

Kevin Tao
Partner, Financial Risk Management Consulting
+86 (10) 8508 5902
kevin.j.tao@kpmg.com

Eric Chang
Partner, Governance, Risk and Compliance, Financial Services
+86 (20) 3813 7088
eric.chang@kpmg.com

Echo Wang
Director, Data Governance, Financial Services
+86 (21) 2212 3672
echo.y.wang@kpmg.com

Fiona Yu
Director, Tax
Financial Services
+86 (10) 8508 7663
fiona.yu@kpmg.com

© 2022 KPMG Huazhen LLP, a People's Republic of China partnership, KPMG Advisory (China) Limited, a limited liability company in Mainland China, KPMG, a Macau (SAR) partnership, and KPMG, a Hong Kong (SAR) partnership, are member firms of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.