

Strong and Steady – Mega Banks as the Pillars of China's Banking Sector

A Study on the Credit Quality of Chinese Mega Banks

January 9, 2020

Key Takeaways

- The six mega banks have about half of the commercial banking market share in China, playing a critical role in overall financial stability.
- The mega banks' capital position is generally in line with the industry average, and we expect them to issue more hybrid bonds to improve their capitalization.
- Because of their high exposure to the real economy of China, most mega banks typically have a risk position in line with the industry average.
- Most mega banks have a very solid and sticky deposit base which leads to a funding structure more stable than the industry average.
- State-owned mega banks are typically directly or indirectly owned by the central government which views its ownership of the mega banks as long-term and strategic.
- Because of their extremely strong business franchise and very close tie with the central government, the mega banks typically have the strongest stand-alone credit quality and issuer credit quality among Chinese banks.

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Introduction

S&P Ratings (China) Co., Ltd. (S&P China) has conducted a desktop analysis of a selection of 200 banks in China, including six mega banks, 11 joint-stock banks, 34 foreign banks, 100 city banks and 49 rural banks, representing 93% of China's banking industry by assets. We have chosen these banks based on their asset size, representativeness of any specific type of bank and availability of public information. The analysis contained herein has been performed using S&P China Methodologies. S&P China Methodologies and analytical approaches are intended specifically for use in China only and are distinct from that used by S&P Global Ratings. An S&P China opinion must not be equated with or represented as an opinion by S&P Global Ratings, or relied upon as an S&P Global Ratings opinion.

This desktop analysis has been conducted using publicly available information only, and is based on S&P China's methodology for banks and our understanding of both the banking industry in China as well as our understanding of the institutions themselves. The analysis involves applying our methodology to public information to arrive at a potential view of credit quality across the banking sector. It is important to note that the opinions expressed in this report are based on public information and are not based on any interactive rating exercise with any particular institution. However, where we have conducted an interactive rating with a specific issuer, our insights and analysis learned from that review with those issuers, may have also been incorporated in our results contained herein. The opinions expressed herein are not and should not be represented as a credit rating, and should not be taken as an indication of a final credit rating of any particular institution, but are initial insights of potential credit quality based on the analysis conducted. This desktop analysis does not involve any surveillance. The opinions expressed herein are not and should not be viewed as recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security.

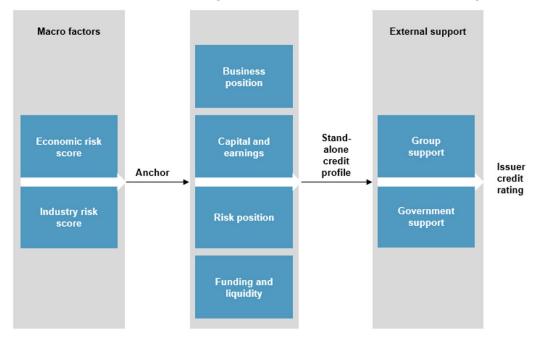
We have conducted this desktop analysis on individual institutions and present the results contained herein at an aggregate group level by types of institutions. The different sections of this research show the statistics and performance of different groups of institutions and the market more broadly against the metrics we generally consider most relevant under our methodology.

Given the desktop nature of this analysis, and that we have not conducted an interactive review with most of those institutions, we may have made certain assumptions in lieu of confirmed information and where relevant we may also have attempted to consider any possibility of parent, group, government or other forms of potential support, to inform our view of potential credit quality. S&P China is not responsible for any losses caused by reliance on the content of this desktop analysis.

This desktop analysis is based on S&P Global (China) Ratings Financial Institutions Methodology. We typically determine the stand-alone credit quality based on our assessment of an institution's anchor, a starting point, and then incorporating its own characteristics compared with the anchor. S&P Global (China) Ratings typically applies an anchor of 'bbb+' for banks. The entity-specific factors that we may use to adjust from the anchor include business position, capital and earnings, risk position, and funding and liquidity. We then determine the issuer credit quality based on the stand-alone credit quality and our assessment of potential group and government influence.

Chart 1

Financial Institutions Methodology Framework of S&P Global (China) Ratings



We typically apply an anchor of 'bbb+' for banks.

Note: After assessing the issuer's entity-specific factors, a holistic assessment may be applied to evaluate its credit characteristics in aggregate and versus peers before arriving at SACP.

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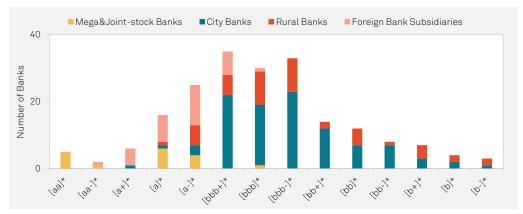
Overview

China has six state-owned mega banks, including Industrial and Commercial Bank of China Limited ("ICBC"), China Construction Bank Corporation ("CCB"), Agricultural Bank of China Limited ("ABC"), Bank of China Limited ("BOC"), Bank of Communications Co., Ltd. ("BoCom") and Postal Savings Bank of China Co., Ltd. ("PSBC"). These six banks have about half of the commercial banking market share in China, playing a critical role in the overall financial stability in the country. They are directly or indirectly owned by the central government which views its ownership of these banks as long-term and strategic.

Because of their extremely strong business franchise and very close tie with the central government, in our view, the state-owned mega banks typically have the strongest stand-alone credit quality and issuer credit quality among Chinese banks.

Chart 2

Distribution of Indicative Stand-alone Credit Quality of 200 Major Banks in China



Mega banks have the strongest indicative stand-alone credit quality among Chinese banks because of their very strong business franchise.

Note 1*: Our assessment of indicative stand-alone credit quality doesn't consider possibility of group or government support in time of stress.

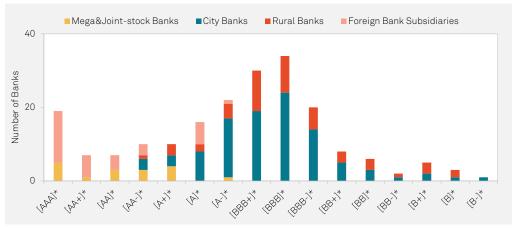
Note 2*: The indicative credit quality distributions expressed in this report are S&P China's indicative views of credit quality derived from a desktop analysis based on public information without interactive review with any particular institution or the full credit rating process such as a rating committee (except for some institutions for which we have assigned ratings on). The opinions expressed herein are not and should not be represented as a credit rating and should not be taken as an indication of a final credit rating of any particular institution.

Sources: S&P Global (China) Ratings.

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Chart 3

Distribution of Indicative Issuer Credit Quality of 200 Major Banks in China



the strongest indicative issuer credit quality thanks to their extremely high possibility of receiving central government support in time of stress.

The mega banks have

Note 1: Our assessment of indicative issuer credit quality considers possibility of group or government support in time of stress.

Note 2*: The indicative credit quality distributions expressed in this report are S&P China's indicative views of credit quality derived from a desktop analysis based on public information without interactive review with any particular institution or the full credit rating process such as a rating committee (except for some institutions for which we have assigned ratings on). The opinions expressed herein are not and should not be represented as a credit rating and should not be taken as an indication of a final credit rating of any particular institution.

Sources: S&P Global (China) Ratings.

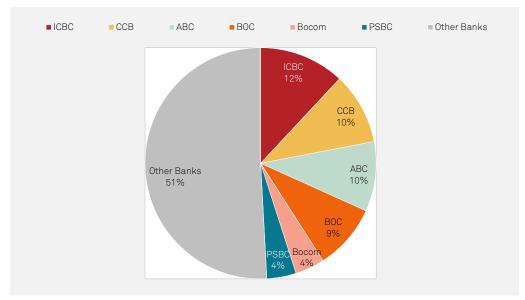
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Business Position

The six mega banks have about half of China's commercial banking market. As the most recognizable banking brands in China, as a group, their business franchise and market position have been unchallenged in China.

Chart 4

Total Asset Market Share Breakdown of China's Commercial Banking Industry as of the End of 2018



The mega banks account for half of commercial banking market in China in terms of total assets.

Note: the market share by total assets = total assets of an institution/ (total assets of China's commercial banking industry disclosed by CBIRC+PSBC's total assets as of the end of 2018) * 100%

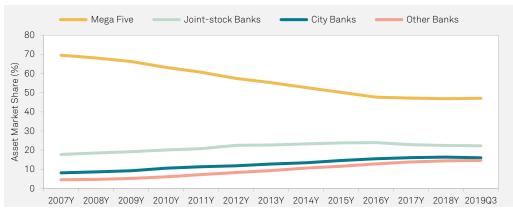
Sources: CBIRC website, public information of banks, collected and adjusted by S&P Global (China) Ratings.

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The mega banks have grown slower than joint-stock banks and regional banks in the past decade because of their much larger sizes and more prudent business strategy, as a result, their market share has been decreasing. In our view, this mild drop of market share won't hurt their overall market position because of the still very large difference between mega banks and other types of banks. As the economy growth slows down in recent years, the mega banks' good resilience in their business and financial performance have become obvious as other types of banks face more challenges. So we expect the mega banks' market position to remain unchallenged in the foreseeable future.

Chart 5

Total Asset Market Share Change of Commercial Banks in China



Note: "Mega Five" include ICBC, CCB, ABC, BOC and BoCom. PSBC was not classified by CBIRC as state-owned mega bank until early 2019. So the historical data on mega banks published by CBIRC may not include the data of PSBC.

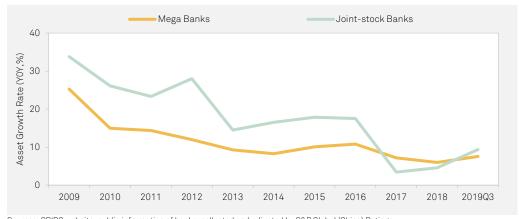
Sources: CBIRC website, public information of banks, collected and adjusted by S&P Global (China) Ratings.

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Despite some decrease in recent decade, we expect the market share of mega banks to remain dominating and stable in the foreseeable future.

Chart 7

Total Asset YoY Growth Rate of Mega Banks and Joint-stock Banks



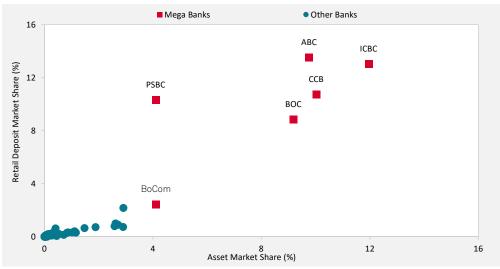
In the past decade, joint-stock banks, as a group, grew faster than the mega bank group but mega banks' growth is steadier.

Sources: CBIRC website, public information of banks, collected and adjusted by S&P Global (China) Ratings.

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Chart 6

Retail Deposits Market Share and Total Asset Market Share of 200 Major Banks in China



There is still a large gap of business scale between the mega banks and other types of banks.

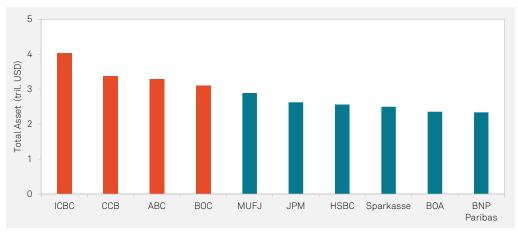
Note: the data is as of the end of 2018.

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Because of their large asset sizes, the Chinese mega banks' stability also has significant global impact. ICBC, CCB, ABC and BOC are the four biggest banks in the world by total assets and have been identified as G-SIBs. In our view, their huge size is attributable to China's economy being the world's second largest in terms of GDP and commercial banking sector's role in allocating financial resources in China.

Chart 8

The World's Top 10 Banking Group by Total Assets as of the End of 2018



Because of their large asset sizes, the Chinese mega banks' stability also has significant global impact.

Note: MUFJ stands for Mitsubishi UFJ Financial Group. JPM stands for JPMorgan Chase & Co. HSBC stands for HSBC Holdings Plc. Sparkasse stands for Sparkassen-Finanzgruppe. BOA stands for Bank of America Corporation. BNP Paribas stands for BNP Paribas SA.

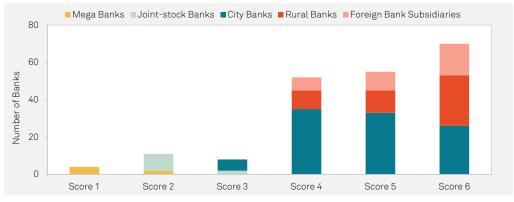
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Although the six mega banks have similar market positions, each of them still has its own distinctive characteristics. ICBC is the largest commercial bank with the largest network in China. CCB is traditionally very strong in infrastructure financing and mortgage lending. ABC has a strong franchise in agricultural and rural sector lending, and it is also the largest retail deposit taker in China. BOC has an extensive international network. Bocom is traditionally strong in transportation sector financing and now is strategically positioned to develop its wealth management franchise. PSBC has very extensive deposit-taking network in rural and remote areas and thus enjoys a very stable funding structure dominated by sticky retail deposits.

Chart 9

S&P Ratings (China)'s Business Position Score Distribution of 200 Major Chinese Banks



In our view, mega banks are very strong in their business position.

Note: For testing purpose, we score the business position of Chinese banks in a scale of 1 to 6.1 means the strongest position and 6 means the weakest.

Sources: S&P Global (China) Ratings.

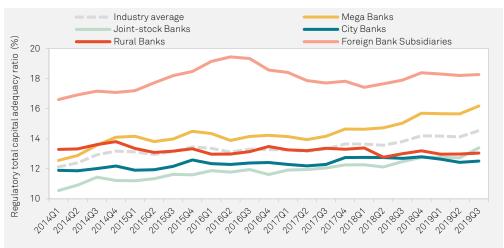
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Capital & Earnings

In terms of reported regulatory capital adequacy ratios, most of the mega banks are above industry average. Five of the six mega banks (ICBC, CCB, ABC, BOC and BoCom, the "Mega Five") use their own internal models to calculate their risk weights for risk-weighted assets ("RWA"). In contrast, standard approach is used by PSBC and other banks in China under which banks use the same risk weights as decided by the banking regulator. Because of the difference between standard approach and internal rating-based approach for RWA calculation, the comparability of mega banks' capital position is limited.

Chart 10

Reported Capital Adequacy Ratio of Different Types of Banks



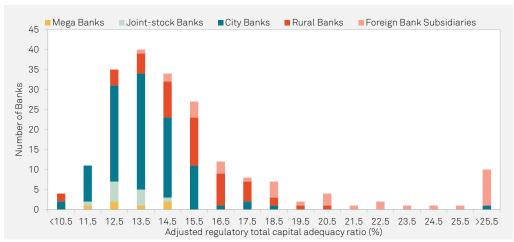
In terms of reported regulatory capital adequacy ratios, mega banks are above industry average.

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After we adjust the internal rating-based ("IRB") approach to standard approach for RWA calculation, the five mega banks' capital position becomes more in line with the industry average. Typically, the credit risk weights generated by internal credit models are lower than the weights assumed in the standard approach.

Chart 11

Distribution of Adjusted Regulatory Capital Adequacy Ratio of Major Chinese Banks as of the End of 2018



After adjustment from IRB approach to standard approach, the mega banks' capital position is generally in line with the industry average.

Note: for the banks who use internal rating-based (IRB) approach for risk-weight asset calculation, we have adjusted their risk weights to standard regulatory risk weights in standard approach to achieve better comparability across the industry.

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Table 1

Retail Credit Risk Weights under IRB Approach Used by Mega Banks for RWA Calculation as of the End of 2018

(%)	ICBC	CCB	ABC	BOC	BoCom
Average retail credit risk weight	25.5	23.4	25.0	15.2	27.0
Inc. Household mortgage	22.9	25.4	22.3	14.2	15.7
Qualified revolving retail exposure	24.9	6.9	27.4	23.0	36.5
Other retail exposure	59.2	27.6	50.8	19.7	45.8

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Table 2

Retail Credit Risk Weights under Standard Approach Used for RWA Calculation

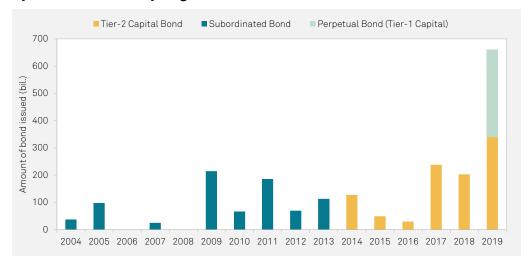
Household mortgage (%)	50
Second lien mortgage exposure (%)	150
Other retail exposure (%)	75

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In 2019, the mega banks significantly increased their issuance of hybrid bonds, particularly additional tier-1 hybrid bonds, and we expect this trend to continue into 2020. Before 2019, mega banks typically issued tier-2 hybrid bonds which help improve the total capital adequacy ratio but doesn't impact the tier-1 capitalization. In January 2019, BOC became the first Chinese bank to issue perpetual bonds in the domestic market which is qualified as additional tier-1 capital under Basel III rules.

Chart 12

Hybrid Bonds Issued by Mega Banks from 2004 to 2019



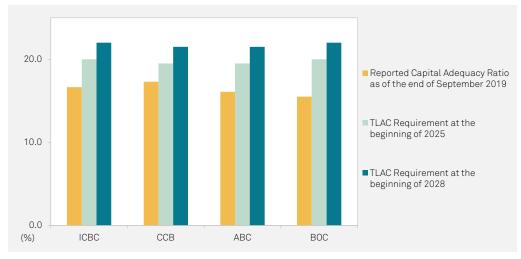
Mega banks increased their issuance of hybrid bonds significantly in 2019.

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We believe that Chinese mega banks may face some challenges in meeting total lost absorb capability ("TLAC") requirement. As G-SIBs, ICBC, ABC, BOC and CCB (the "Mega Four") must meet the TLAC requirements by phases. As required by Financial Stability Board, the TLAC of ICBC, ABC, BOC and CCB need to account for 20%, 19.5%, 20% and 19.5% of their respective risk-weighted assets at the beginning of 2025. At the beginning of 2028, such requirements for these four banks will further rise to 22%, 21.5%, 22% and 21.5% respectively. As of the end of September 2019, the reported capital adequacy ratios of ICBC, ABC, BOC and CCB are 16.7%, 16.1%, 15.5% and 17.3% respectively. There is still a noticeable gap with the TLAC targets.

Chart 13

TLAC Requirements for the Mega Four Banks



"Mega Four" still face challenges in meeting TLAC targets in the next decade.

Sources: China Financial Stability Report 2019 published by PBOC, public information of banks, collected and adjusted by S&P Global (China) Ratings.

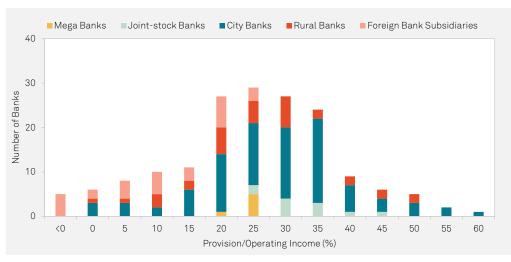
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In our view, as annual provisioning only accounts for about a quarter of their operating income, the mega banks have the financial flexibility to step up their provisioning if bad debts increase in the

future. In contrast, for many joint-stock banks and regional banks, credit cost has already become a heavy burden dragging down their current profitability and limiting financial flexibility in the future.

Chart 14

Provision/Operating Income of Major Chinese Banks as of the End of 2018



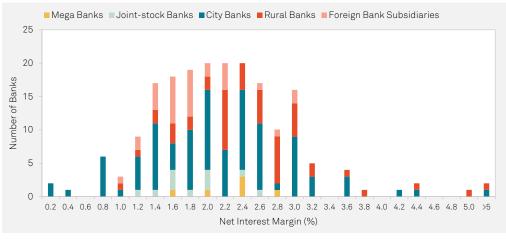
Thanks to stable NPL level and strong revenue, mega banks still have room to further step up their provisioning level in the future.

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Generally speaking, the NIM of mega banks are in line with the industry average. The only exception is PSBC, which enjoys a higher NIM largely because of its low-cost retail deposit base.

Chart 15

Net Interest Margin (NIM) of Major Chinese Banks as of the End of 2018



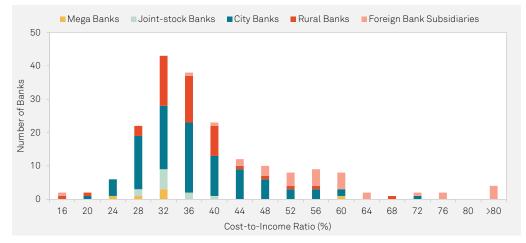
Mega Banks' NIM is typically consistent with the industry average. PSBC has a NIM higher than its peers mostly because of its low-cost retail deposit base.

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Thanks to great economies of scale, typically, mega banks have reasonably low cost-to-income ratios which contribute to their robust profitability. PSBC has a higher cost-to-income ratio because of the agency fee it needs to pay to China Post Group under its unique "proprietary branch + agency outlet" business model.

Chart 16

Cost-to-income Ratio of Major Chinese Banks as of the End of 2018

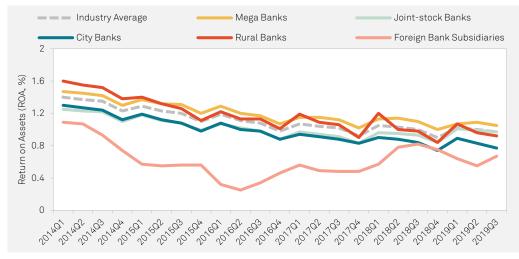


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Thanks to efficient management and operations, strong business franchise and stable asset quality metrics, the mega banks have been able to maintain a profitability level more stable than other types of banks.

Chart 17

Return on Assets (ROA) of Different Types of Banks



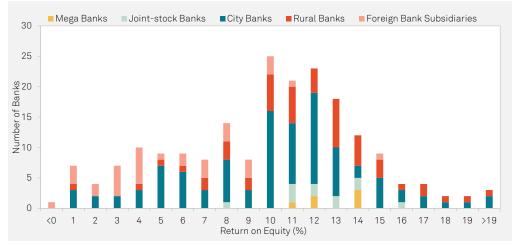
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Typically, mega banks' cost-toincome ratio is healthy because of their good economies of scale. PSBC's costto-income ratio is higher than its peers because of its unique "proprietary branch + agency outlet" business model.

Compared with other types of banks, mega banks have more stable profitability throughout the years.

Chart 18

Distribution of Return on Equity of Major Chinese Banks in 2018



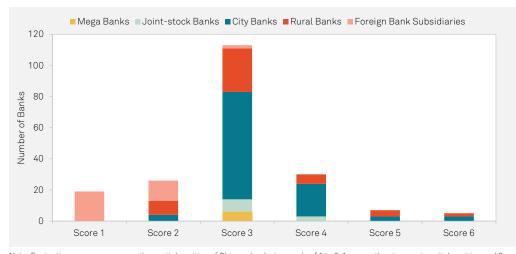
The mega banks' ROE is generally in line with the industry average.

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The mega banks' ROE is consistent with the industry average and their robust retained earning level help them to maintain adequate capitalization while keeping a healthy business growth rate.

Chart 19

S&P Ratings (China)'s Capital Position Score Distribution of 200 Major Chinese Banks as of the End of 2018



In our view, the mega banks' capital position is adequate and consistent with industry average.

Note: For testing purpose, we score the capital position of Chinese banks in a scale of 1 to 6.1 means the strongest capital position and 6 means the weakest.

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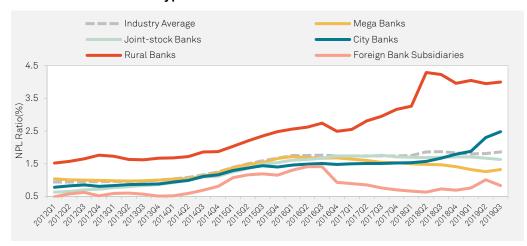
Risk Position

Because of their very high market share in the lending business and extensive exposure to the real economy in China, mega banks typically have a risk position in line with the industry average. The only exception is probably PSBC which has a smaller lending operation and enjoys asset quality metrics better than the industry average.

In our opinions, the very good diversification of their loan books in terms of geography and client base helps the mega banks to have a more stable asset quality performance compared with other types of banks. Their concentration risk is much lower than other banks. Compared with mega banks, the NPL ratios of other types of banks have behaved much more volatile.

Chart 20

NPL Ratios of Different Types of Banks

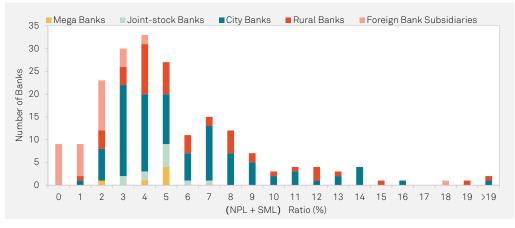


Mega banks' NPL ratio is more stable than other types of banks.

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Chart 21

Distribution of (NPL +SML) Ratio of Major Chinese Banks as of the End of 2018



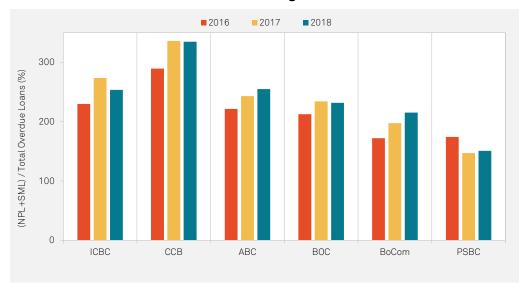
Typically, the mega banks' asset quality metrics are consistent with the industry average as they reflect the overall credit quality of China's real economy.

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In terms of loan credit risk classification practices, we believe that mega banks are disciplined and consistent, while there are much more variations among the practices of other types of banks.

Chart 22

(NPL+SML)/Total Overdue Loans Ratio of Mega Banks

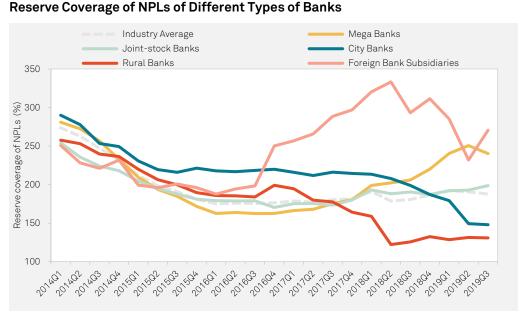


The mega banks have been disciplined and prudent in their loan credit risk classification practices.

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Thanks to very strong revenue, stable asset quality metrics and prudent provisioning policies, the mega banks loan loss reserve is sufficient to cover their overdue loans. Mega banks are the only type of the banks which managed to significantly improve their reserve coverage of NPLs since 2018. In our view, if the bad debt problem of the industry worsens in the future as economic growth further slows down, the mega banks are generally in better position to protect their capital base than other types of banks because of their high reserve level.

Chart 23

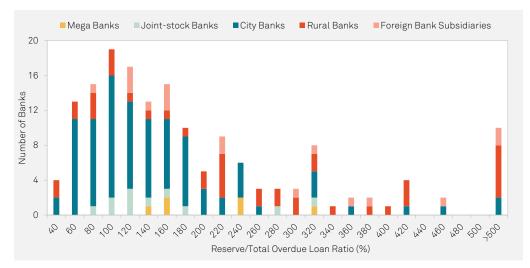


Mega banks are the only type of the banks which has managed to significantly improve their reserve coverage of NPLs since 2018.

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Chart 24

Distribution of Reserve/Total Overdue Loan Ratio of Major Chinese Banks as of the End of 2018

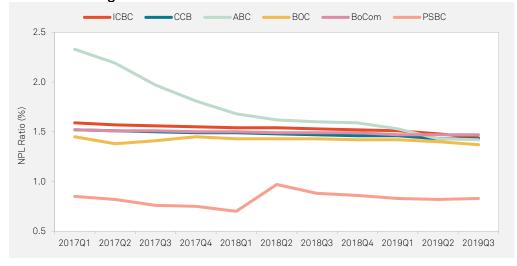


Mega banks' loan loss reserve is adequate to cover their overdue loan.

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Chart 25

NPL Ratio of Mega Banks

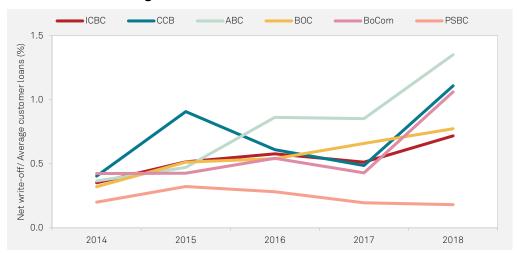


PSBC has better asset quality metrics compared with its peers.

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Chart 26

Write-off Ratios of Mega Banks

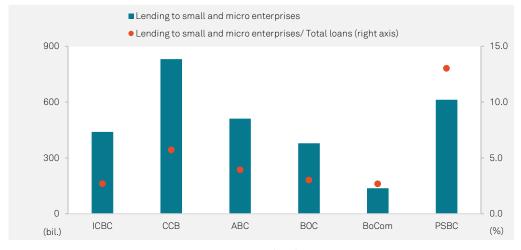


Writing-off has been one of the effective measures for mega banks to keep their NPL ratio low.

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In recent years, mega banks have been actively lending to small and micro enterprises as required by the government. In March 2019, China Banking and Insurance Regulatory Commission (CBIRC) encouraged ICBC, CCB, ABC, BOC and BoCom to grow their loans to small and micro enterprises by at least 30% by the end of 2019 on a YoY basis. As of the end of June 2019, these five mega banks have witnessed small and micro enterprise loans increased by 29.6% from the end of 2018. The impact on their asset quality of this initiative is still too early to tell at this stage but we believe that mega banks' profitability is strong enough to absorb any additional loss from such loans in the foreseeable future, and their capital base won't have any material weakening because of this initiative.

Chart 27
Lending to Small and Micro Enterprises as of the End of June 2019



We believe that mega banks' profitability is strong enough to absorb any additional credit loss from increase in small and micro enterprise loans in the foreseeable future.

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Chart 28

S&P Ratings (China)'s Risk Position Score Distribution of 200 Major Chinese Banks as of the End of 2018



We believe that most mega banks' overall risk position is consistent with the industry average.

Note: For testing purpose, we score the risk position of Chinese banks in a scale of 1 to 6.1 means the strongest position and 6 means the weakest. Sources: S&P Global (China) Ratings.

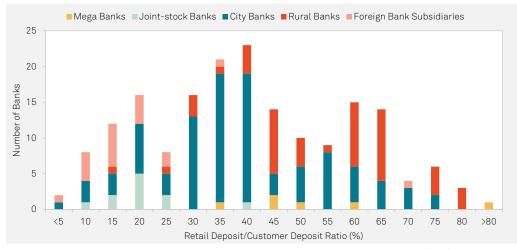
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Funding & Liquidity

Thanks to their extensive network and strong business franchise in China, the mega banks have a very solid and sticky deposit base which leads to a funding structure much more stable than the industry average. As a result, their reliance on wholesale funding is much less than joint-stock banks.

Chart 29

Distribution of Retail Deposit/Customer Deposit Ratio of Major Chinese Banks as of the End of 2018

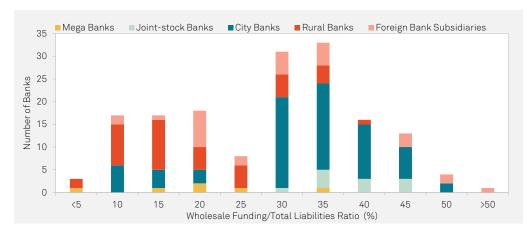


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Mega banks typically have a strong retail deposit base.

Chart 30

Distribution of Wholesale Funding/Total Liabilities Ratio of Major Chinese Banks as of the End of 2018



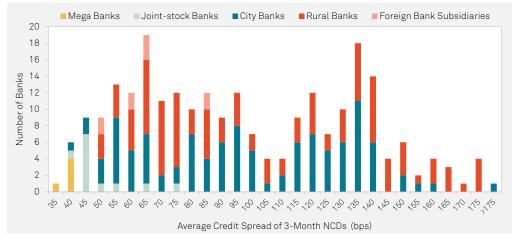
Typically, mega banks rely less on wholesale funding because of their solid deposit base.

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As the strongest group of banks with highest level of government supports, the mega banks typically benefit from "flight to quality" when the market becomes concerned about banking sector health. After Baoshang Bank takeover in late May 2019, the mega banks' credit spread remains the lowest at all time while the credit spreads of many city and rural banks increase significantly.

Chart 31

Average Z-spreads of 3-month NCDs of Banks after Baoshang Bank Takeover



Unsurprisingly, mega banks have the lowest credit spread among China's commercial banks.

Note 1: The samples in the chart include 5 mega banks, 12 joint-stock banks, 108 city banks, 111 rural banks and 10 foreign bank subsidiaries that issued 3-month NCD from June 1st, 2019 to November 30, 2019.

Note 2: z-spread in this chart = 3M NCD issuance rate - 3M treasury notes spot rate

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Chart 32

Average Coupon Rate of 3-month NCDs of Different Types of Banks

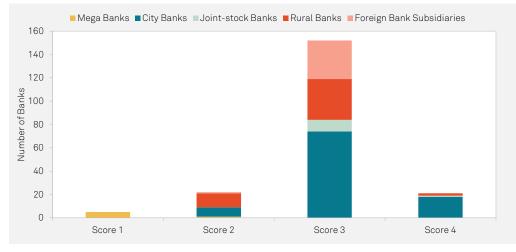


The mega banks typically benefit from "flight to quality" when the market becomes concerned about banking sector health.

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Chart 33

S&P Ratings (China)'s Funding & Liquidity Testing Score Distribution of 200 Major Chinese Banks as of the End of 2018



In our opinion, the mega banks' funding and liquidity profile is the best compared with other types' banks in China.

Note: For testing purpose, we score the funding and liquidity position of Chinese banks in a scale of 1 to 4.1 means the strongest position and 4 means the weakest.

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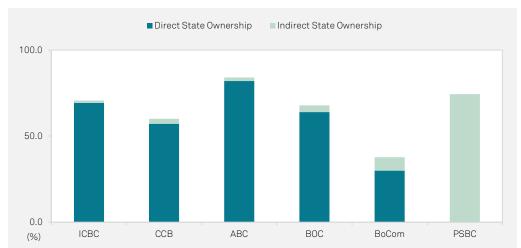
Government Support

We believe that the mega banks are critical to the central government because of their significant market share and critical role in maintaining financial stability in China. Therefore, the likelihood of them receiving government supports in time of stress is extremely high.

In our opinion, the central government's ownership of these mega banks is long-term and strategic. We believe that the central government typically has the final say on the overall business strategy and senior management appointment of these banks.

Chart 34

Direct and Indirect State Ownership of Mega Banks among Their Top 10 Shareholders as of the End of September 2019



In our opinion, the central government's ownership of these mega banks is longterm and strategic.

Note: directly state ownership means ownership by the Ministry of Finance, Central Huijin Investment Ltd.or Social Security Fund; and indirect state ownership means ownership through state-owned enterprises.

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The central government has a proven track record of providing extradentary supports to mega banks. In the late 1990s, the central government set up four Asset Management Companies to take over the legacy bad debts of the "Mega Four" when their high NPL ratios made their operations unsustainable on a stand-alone basis. This move cleaned up mega banks' legacy bad debts and ensured their rapid growth in the 21st century.

Summary

In summary, mega banks are the biggest and strongest players in China's banking sector. These banks typically have a funding structure more stable than the industry average thanks to their very strong franchise in deposit business. Most of them tend to have financial metrics consistent with the industry average in terms of capital position, profitability and asset quality. Therefore, we typically consider the stand-alone credit quality of mega banks as the strongest in China. In addition, because of the extremely high likelihood of them receiving supports from central government in time of need, we consider these banks' issuer credit quality as extremely strong and stable at the national scale.

Table 3

Risk Factor	Typical Profile
Business Position	Mega banks generally enjoy very good geographic diversification at national level and very well-diversified business lines. The six mega banks account for half of the commercial banking market share in China and enjoy the strongest banking brands in China.
Capital & Earnings	Mega banks typically have high reported capital adequacy ratios and enjoy good profitability. The strong reported capital of the "Mega Five" is partly attributed to their use of internal model for risk weights. When adjusted to standard risk weights as used by other banks in China, mega banks tend to have capital position close to industry average.
Risk Position	Most mega banks' asset quality performance reflects the health of the real economy in China, and their risk position is typically aligned with the industry average.
Funding & Liquidity	Mega banks typically have very strong retail and corporate deposit base, and their use of wholesale funding is limited in most cases. They usually have strong liquidity position too. In addition, we believe that they would benefit from "flight to quality" phenomenon when the market becomes stressed.
Government Support	We believe that the mega banks have critical importance to the central government and the likelihood of receiving government supports in time of stress is extremely high.

This report does not constitute a rating action.

Appendix: Related Methodologies & Research

Methodology Applied:

- S&P Global (China) Ratings Financial Institutions Methodology.

Related Research & Commentary:

- S&P Global (China) Ratings General Considerations on Rating Modifiers and Relative Ranking.

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