

City Banks: Indispensable Financiers of China's SMEs

A Study on the Credit Quality of City Banks in China

March 24, 2020

Key Takeaways

- Compared to national banks with much stronger business franchises, city banks' competitive strength typically lies in serving local small and mid-sized enterprises (SMEs) and micro businesses.
- City banks are typically exposed to high geographic concentration and their efforts to expand into other regions have had mixed results.
- A few city banks are under pressure to enhance their capital base as mounting bad debts are eroding their profitability and capitalization.
- City banks are under bigger bad debt pressure compared to other types of banks.
- City banks' reliance on wholesale funding has led to a funding cost increase after the Baoshang Bank takeover, but we expect a stable and adequate liquidity profile for most city banks thanks to ample systemwide liquidity.
- The government has a clear supportive stance toward city banks because of their role in financing SMEs and micro businesses, but determining the extent and timeliness of government support for a specific city bank requires case-by-case analysis.

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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, 100 city banks, 50 rural banks, and 33 foreign bank subsidiaries, 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.

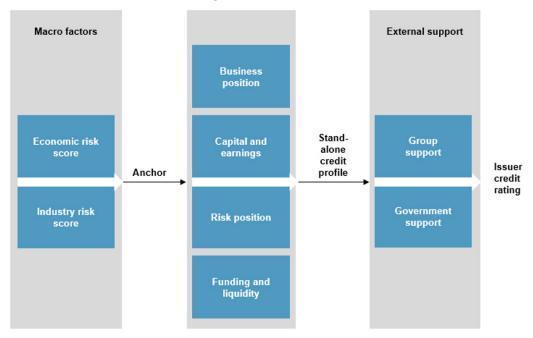
Given the desktop nature of this analysis, and that we have not conducted an interactive review with most of those institutions, we may have made certain assumptions in lieu of confirmed information and where relevant we may also have attempted to consider any possibility of parent, group, government 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.

This report looks specifically into city commercial banks, one sub-sector of the banking universe that we examined in our other reports (see <u>Diversity Across China's Banking System – A Deep Dive A Study on Credit Quality Differentiation Among Chinese Banks</u>, October 21, 2019, and <u>Key Differentiation Factors of Credit Quality of Domestic Banks in China</u>, March 3, 2020).

Chart 1

Financial Institutions Methodology Framework



S&P Global (China) Ratings typically applies 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.

Source: S&P Global (China) Ratings

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Overview

The past few months have seen immense social and economic disruption across China and the world associated with the spread of COVID-19. The implications for bank portfolios and ultimate credit quality is yet to be seen. Generally speaking, banks were well capitalized as a sector going into this event, both within China and generally across the globe. As a key sector for the transmission of government economic and market policies, the role of the sector will be important as the recovery phase commences. It should be expected that there will be some short-term issues particularly around small and medium-sized businesses, unemployment and supply chain shocks. The broader implications for loan quality and the economy more broadly will emerge over time.

In this commentary, we study the credit quality of 100 city banks in China, accounting for 15% of the total commercial banking industry assets and 92% of the total assets of the city bank segment. In this round of testing, the indicative stand-alone credit quality of city banks generally ranges from [$a_{\rm spc}$ +] to [$b_{\rm spc}$ -], and indicative issuer credit quality generally ranging from [$A_{\rm spc}$ -] to [$B_{\rm spc}$ -], with median in the [$B_{\rm spc}$] category.

Chart 2

Distribution of Indicative Stand-alone Credit Quality of 166 Major Domestic Banks in China



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

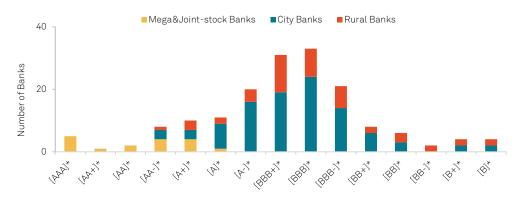
Source: S&P Global (China) Ratings.

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Because of government support, the indicative issuer credit quality of many city banks is higher than their indicative stand-alone credit quality. In our view, the government has a strong incentive to support the city bank segment because these banks have an important role in serving local SMEs, micro businesses and local communities. However, determining the extent and timeliness of support that an individual city bank can receive in times of stress requires case-by-case analysis.

Chart 3

Distribution of Indicative Issuer Credit Quality of 166 Domestic Banks in China



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

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The indicative standalone credit quality of city banks generally ranges from [a_{spc}+] to [b_{spc}-], and the majority is concentrated at [bbb_{spc}] category.

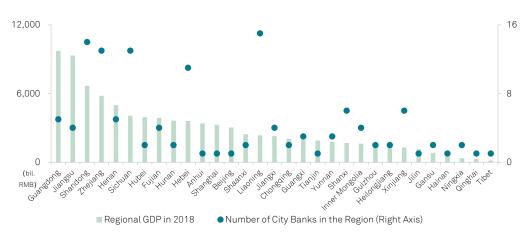
The indicative issuer credit quality of city banks generally ranges from [AA_{spc}-] to [B_{spc}-].

Business Position

The city bank market is a highly fragmented segment. China has 134 city banks with a total asset market share of 16% in the commercial banking industry. Generally higher geographic concentration limits their business development potential, and as a result, city banks are typically smaller than national banks. Given the varying market sizes of different regions, city banks face different growth prospects.

Chart 4

Regional GDP and Number of City Banks by Region



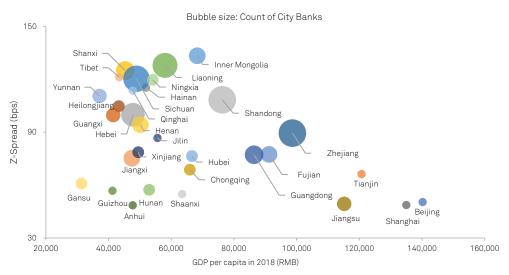
Given the varying market sizes of different regions, city banks face different growth prospects.

Sources: National Bureau of Statistics, CBIRC, collected and adjusted by S&P Global (China) Ratings. Copyright ©2020 by S&P Ratings (China) Co., Ltd. All rights reserved.

In our view, local economic strength and the fragmentation of the regional banking market are important factors influencing city banks' funding costs in the interbank market. When comparing regions with similar regional per capita GDP, if a province has fewer city banks, their average market spread in the interbank market tends to be lower because these city banks are typically larger and more diversified across the province. If a province has a larger number of city banks, the average market spread tends to be high because each city bank is typically smaller and more vulnerable toward local economic uncertainties.

Chart 5

Average Z-spread of 3-month NCDs of City Banks Grouped by Regions



Local economic strength and the level of fragmentation of the regional banking market are important factors influencing city banks' funding costs.

Note 1: The samples in the chart include 108 city banks that issued 3-month NCD from June 01, 2019 to November 30, 2019.

Note 2: z-spread = 3M NCD issuance rate - 3M treasury notes spot rate.

Source: Wind, collected and adjusted by S&P Global (China) Ratings.

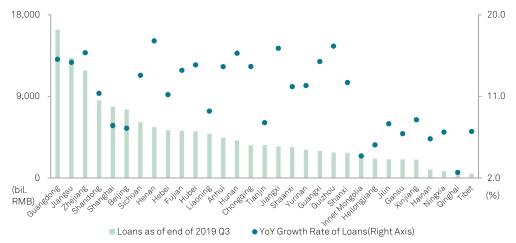
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In our view, if more small city banks experience difficulties during the current economic slowdown, we may see mergers of city banks within the same province to create bigger and stronger provincial level banks in an attempt to reduce the vulnerability of small city banks.

Compared to national banks with strong funding and diversified business lines serving large companies, city banks' competitive strength typically lies in serving local SMEs and micro businesses, which tend to be in the private sector. Therefore, city banks based in regions with a dynamic private sector typically have good business prospects.

Chart 6

Regional Loan Size and Year-on-year Loan Growth Rate of Different Regions

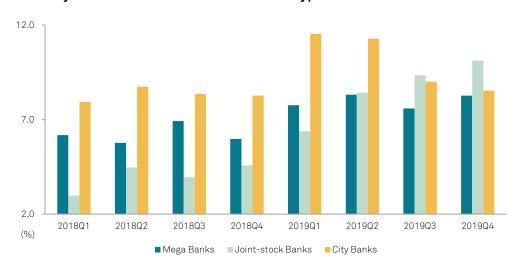


Source: PBOC, collected and adjusted by S&P Global (China) Ratings.
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City banks in Guangdong, Jiangsu, and Zhejiang generally have good business prospects thanks to strong demand for lending.

Thanks to their small scale and strong appetite for business growth, city banks used to have the highest asset growth pace when compared with other types of banks, but their growth dropped since the third quarter of 2019. We believe this is related to the market shock caused by the Baoshang Bank takeover in May 2019.

Chart 7
Year-on-year Assets Growth Rate of Different Types of Domestic Banks



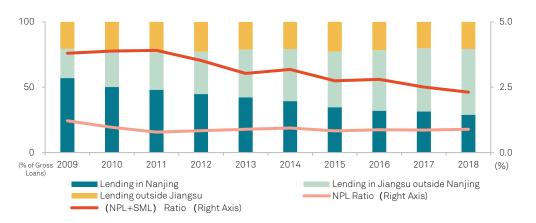
City banks' asset growth dropped since 2019 Q3, which could be partly attributed to the market shock caused by the Baoshang Bank takeover.

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Chart 8

To seek better development opportunities, since 2006, many city banks have looked to expand operations beyond their home cities. In our view, such expansion has had mixed results. Some city banks with effective management have efficiently managed their branches outside their home cities and achieved good geographic diversification.

Geographic Diversification and Asset Quality of Bank of Nanjing



Some large city banks have successfully expanded into other regions while maintaining effective risk control.

Note: NPL – non-performing loan; SML – special mention loan.

Source: Public information of Bank of Nanjing, collected and adjusted by S&P Global (China) Ratings.

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We are also aware that expanding operations to other cities can add significant credit risk exposure, because the bank's management team may not be familiar with the credit environment in another city. Extended branch networks may also bring higher operational risk and put pressure on internal control. In addition, it is easier to conduct lending business rather than deposit taking in other regions, so some city banks may rely more on wholesale funding, thus increasing their liquidity vulnerability.

In our opinion, at the systemwide level, when too many city banks compete in the same first or second tier city, there is a higher risk of over-banking and NIM compression, which also creates challenges for risk management in cases where one borrower can borrow from many banks at the same time.

We expect city banks' expansion beyond their home cities to slow down in the foreseeable future. The banking regulator has tightened its regulations on such geographic expansion in recent years. In addition, many city banks are feeling pressure on their asset quality and capitalization fronts, restraining their ability to sustain very rapid expansion.

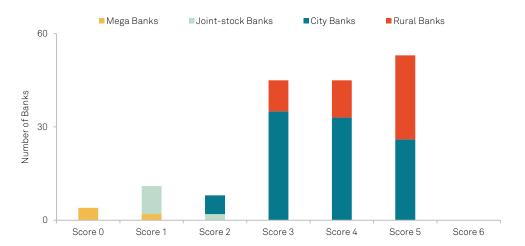
Characteristics of Banks with Different Indicative Business Position Scores

Score	Typical Profile
0	Very large state-owned mega banks with very good geographic diversification across China or beyond.
1	Large state-owned mega banks or large national joint-stock banks, with good geographic diversification across China.
2	Mid-sized joint-stock banks or large regional banks with good geographic diversification at least at a provincial level, or leading large foreign bank subsidiaries.
3	Mid-sized regional banks based in first or second tier cities, or mid-sized foreign bank subsidiaries.
4	Small regional banks in second or third tier cities with high geographic concentration, or mid and small-sized foreign bank subsidiaries.
5	Very small regional banks in third or fourth tier cities with very high geographic concentration, or small foreign bank subsidiaries.
6	The bank's business operations are materially riskier than its peers. This category applies only in exceptional circumstances.

In addition to market share, business stability and diversification considerations, our business position assessment also considers corporate governance, management capability, strategy execution, and other qualitative factors.

Chart 9

Indicative Business Position Score Distribution of 166 Major Domestic Banks in China



Most city banks have small market shares and high geographic concentration.

Note 1: For our testing purpose, we score the business position of banks on a scale of 0 to 6.0 means the strongest business position and 6 means the weakest.

Note 2: The indicative scores expressed in this report are S&P China's indicative views of risk factors 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 part of a credit rating.

Source: S&P Global (China) Ratings.

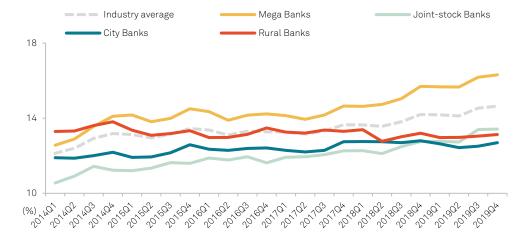
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Capital & Earnings

Because of fast asset growth and increasing bad debt pressure, city banks had the lowest average reported capital adequacy ratio when compared with other types of banks as of the end of 2019.

Chart 10

Reported Capital Adequacy Ratios of Different Types of Domestic Banks



City banks have the lowest average reported capital adequacy ratio as of the end of 2019.

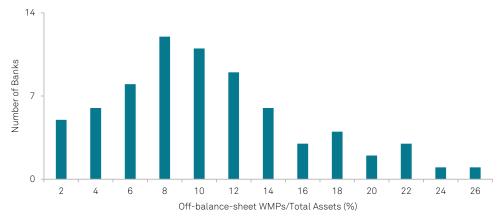
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When we assess the capitalization of city banks, we typically pay attention to two kinds of risk. One is the risk of off-balance-sheet wealth management products ("WMP") affecting the capital base, and the other is the risk of under-provisioning.

Off-balance-sheet WMPs are not included in regulatory capital calculations, since banks are not legally obliged to repay their WMP investors. However, in our view, there is still tremendous reputational risk involved if a bank's clients suffer because of significant WMP defaults. This kind of reputational damage can be particularly painful to small city banks as they have a limited client base and vulnerable business franchise to begin with. Therefore, we believe that city banks may try to use their own resources directly or indirectly to prevent their WMP buyers from suffering losses. Such efforts may have a negative impact on their capital.

Because of the new asset management regulations effective since April 2018, which are currently going through a transitional period that will conclude by the end of 2020, we regard WMP risk as gradually decreasing. But before the transition is successfully completed, we still take into consideration the off-balance-sheet WMP exposures when we assess the capital position of city banks.

Chart 11
Size of Off-balance-sheet Wealth Management Products of Major City Banks



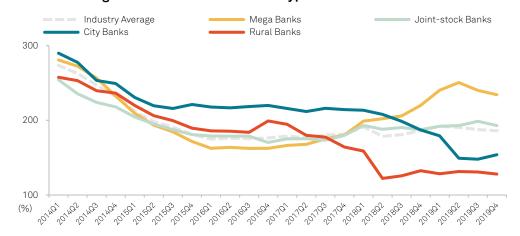
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We identify under-provisioning as another risk affecting the real capital level of some city banks. Under-provisioning risk may put their capital in jeopardy because any credit loss not covered by reserves would eventually cut into their capital.

City banks vary significantly in terms of off-balance-sheet WMP exposures.

Chart 12

Reserve Coverage Ratio of NPLs of Different Types of Domestic Banks



The reserve coverage ratio of city banks has stabilized in recent quarters but is still lower than that of national banks.

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Chart 13

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



City banks' reserve levels vary significantly.

Note: Eastern China includes Shandong, Jiangsu, Anhui, Zhejiang, Fujian, and Shanghai; Northern China includes Beijing, Tianjin, Hebei, Shanxi, and Inner Mongolia; Southern China includes Guangdong, Guangxi, Hainan; Central China includes Henan, Hubei, Hunan; Southwest China includes Sichuan, Yunnan, Guizhou, Tibet, Chongqing; Northwest China includes Ningxia, Xinjiang, Qinghai, Shaanxi, Gansu; Northeast China includes Liaoning, Heilongjiang and Jilin.

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We believe most city banks have solid reported regulatory capital ratios which reflect their real capitalization. After we adjust city banks' reported tier-1 capital adequacy ratios by considering the negative impact of WMPs and under-provisioning, the average tier-1 capital adequacy ratio of city banks would drop mildly from the reported number of 10.4% to an adjusted level of 9.9%.

S&P Global (China) Ratings' Approach to Capital Adequacy Ratio Adjustment for City Banks

Adjustment Factor	Reason for Adjustment	Adjustment Method for Testing Purpose
Off-balance-sheet WMPs	Before the transition of new asset management regulations is completed, we believe off-balance-sheet WMPs may continue to have some negative impact on banks' capital since banks may use their own resources to make WMP investors whole in order to control reputational risk.	We add the outstanding non- standard products in the off- balance-sheet WMPs issued by banks into their RWAs, using the same risk weight as corporate loans.
Under-provisioning	Low reserves put capital under stress if the bad debt recovery rate deteriorates or bad debt formation accelerates, because any credit loss not covered by reserves would eventually cut into capital.	For any credit loss not covered by reserves, we deduct the uncovered part from banks' reported tier-1 capital.

Chart 14

Distribution of Reported and Adjusted Tier-1 Capital Adequacy Ratios of City Banks as of End of 2018



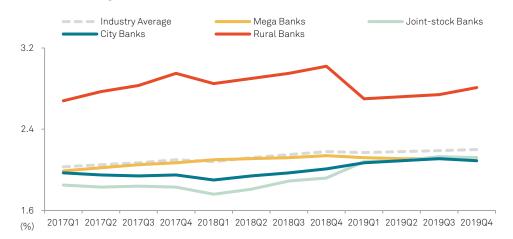
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Although the average net interest margin ("NIM") of city banks is consistent with the industry average, NIM among different city banks varies significantly. Some city banks have the industry's highest NIM because their focus on SME lending and micro-lending allows them to charge a high credit risk premium in their loan pricing. In contrast, some city banks that fail to develop niche markets in serving local small businesses may find themselves competing with larger national banks for clientele and experiencing NIM compression when trying to win over large corporate clients with more attractive lending rates.

We believe most city banks have solid reported regulatory capital ratios which reflect their real capitalization.

Chart 15

Net Interest Margin of Different Types of Domestic Banks

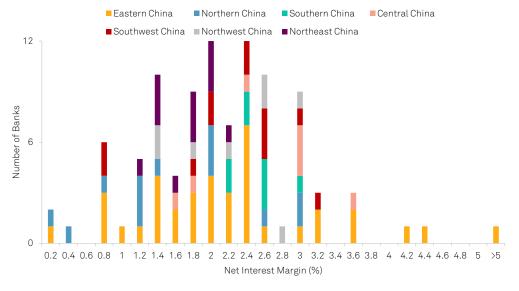


City banks' average NIM level is consistent with national banks but lower than rural banks.

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Chart 16

Net Interest Margin of Major City Banks in 2018



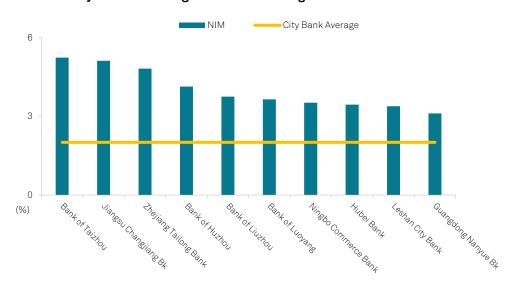
NIM among different city banks varies, and some city banks in Eastern China have a NIM significantly higher than the industry average.

Note: Eastern China includes Shandong, Jiangsu, Anhui, Zhejiang, Fujian, and Shanghai; Northern China includes Beijing, Tianjin, Hebei, Shanxi and Inner Mongolia; Southern China includes Guangdong, Guangxi, Hainan; Central China includes Henan, Hubei, Hunan; Southwest China includes Sichuan, Yunnan, Guizhou, Tibet, Chongqing; Northwest China includes Ningxia, Xinjiang, Qinghai, Shaanxi, Gansu; Northeast China includes Liaoning, Heilongjiang and Jilin.

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Chart 17

Selected City Banks with High Net Income Margin in 2018



Some city banks have the industry's highest NIM level because their focus on SME lending and microlending allows them to charge a high credit risk premium in their loan pricing.

Note: Average NIM of city banks was 2% in 2018.

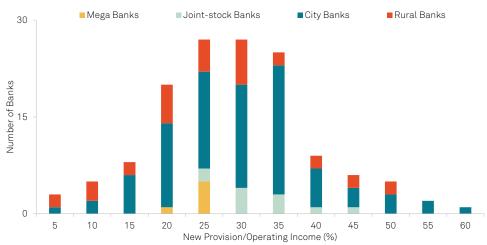
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Amid the current economic headwinds in China, we view credit cost will become one of the most influential factors affecting the profitability level of city banks in the next two years.

Chart 18

Provision/Operating Income of Major Domestic Banks in China as of the End of 2018



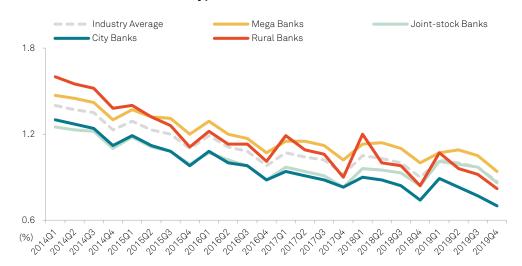
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Because of generally smaller operation scales and higher credit costs, the average profitability of city banks is lower than national banks. With a lower average NIM than rural banks, city banks' average profitability is also lower than rural banks.

We view credit cost will become one the most influential factors affecting the profitability level of city banks.

Chart 19

Return on Assets of Different Types of Domestic Banks



Compared with other types of domestic banks, city banks' average profitability was the lowest in 2019.

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Chart 20

Return on Assets and NPL Ratio of City Banks



As the NPL ratio rises, city banks' average profitability drops.

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Unlike national banks which tend to have similar profitability levels, city banks' profitability levels vary considerably, ranging from 0.02% to 2.7% in 2018. This wide divergence is mainly attributable to different management capabilities and the varying economic landscape across different regions in China.

Chart 21

Distribution of Return on Equity of Major City Banks in 2018



City banks' profitability varies a lot.

Note: Eastern China includes Shandong, Jiangsu, Anhui, Zhejiang, Fujian, and Shanghai; Northern China includes Beijing, Tianjin, Hebei, Shanxi, and Inner Mongolia; Southern China includes Guangdong, Guangxi, Hainan; Central China includes Henan, Hubei, Hunan; Southwest China includes Sichuan, Yunnan, Guizhou, Tibet, Chongqing; Northwest China includes Ningxia, Xinjiang, Qinghai, Shaanxi, Gansu; Northeast China includes Liaoning, Heilongjiang and Jilin.

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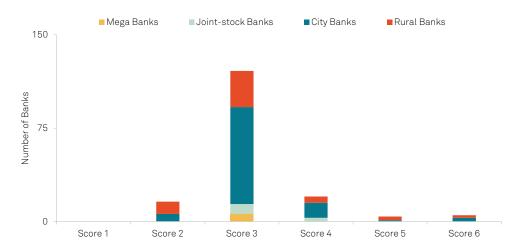
We pay attention to banks' profitability because it has an impact on the sustainability of the capital base. A bank's retained earnings should be able to sustain its risk-weighted asset growth to keep the capital base stable. In addition, we assess the quality of earnings, and we believe adequate provisioning in a forward-looking manner is the key to achieving solid quality of earnings.

Characteristics of Banks with Different Indicative Capital and Earnings Scores

Score	Typical Profiles
1	We expect the capital adequacy ratios adjusted by S&P Global (China) Ratings to be much higher than the industry average at least for the next 24 months.
2	We expect the capital adequacy ratios adjusted by S&P Global (China) Ratings to be somewhat higher than the industry average at least for the next 24 months.
3	We expect the capital adequacy ratios adjusted by S&P Global (China) Ratings to be consistent with the industry average and able to meet the minimum regulatory capital requirements at least for the next 24 months.
4	We expect the capital adequacy ratios adjusted by S&P Global (China) Ratings to be somewhat lower than the industry average in the next 24 months.
5	We expect the capital adequacy ratios adjusted by S&P Global (China) Ratings to be lower than the industry average in the next 24 months.
6	We expect the capital adequacy ratios adjusted by S&P Global (China) Ratings to be significantly lower than the minimum regulatory requirements and we expect that without timely capital injection, the bank's operations would become unsustainable.

Chart 22

Indicative Capital and Earnings Score Distribution of 166 Major Domestic Banks in China



We expect most city banks to maintain adequate capitalization in 2020.

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

Note 2: The indicative scores expressed in this report are S&P China's indicative views of risk factors 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 part of a credit rating.

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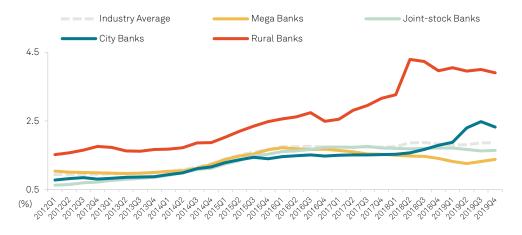
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Risk Position

Higher geographic concentration makes city banks generally vulnerable to local economic uncertainties. While national banks have had relatively stable NPL ratios in recent quarters, city banks' NPL ratios have been rising since 2018, which may be attributable to both the mounting credit pressure of their clients and tighter NPL recognition rules required by the banking regulator.

Chart 23

NPL Ratios of Different Types of Domestic Banks



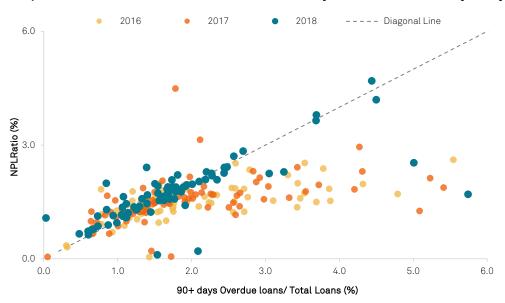
City banks' average NPL ratio has been rising since 2018, which may be attributable to both mounting credit pressure and tighter NPL recognition rules.

Source: CBIRC, collected and adjusted by S&P Global (China) Ratings. Copyright @2020 by S&P Ratings (China) Co., Ltd. All rights reserved.

City banks' NPL recognition practices vary. The practices of some banks were lax and imprudent before 2018, leading to under-provisioning and inflated capital ratios. The situation has been improving significantly since 2018 thanks to the efforts of the banking regulator.

Chart 24

Comparison between NPL Ratio and Ratio of 90+ Day Overdue Loans of Major City Banks



City banks have improved their NPL recognition practices since 2018.

Note: When a dot is on the diagonal line, it means its NPL ratio is equal to its 90+ days overdue loans/ total loans ratio.

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

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During a period of economic slowdown, the divergence of asset quality performance becomes more significant among city banks thanks to the different economic performances of various regions.

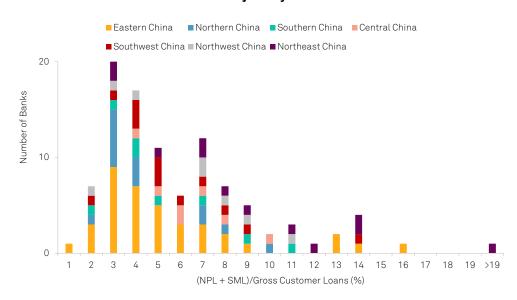
Table 1

SML+NPL Ratio Comparison of Different Types of Domestic Banks as of End of 2018

(%)	Max	Min	Average	Median	Standard Deviation
Mega Banks	4.45	1.49	4.12	4.29	1.15
11 Joint-stock Banks	6.28	2.84	4.25	4.48	1.01
100 Major City Banks	34.24	0.80	4.71	4.77	4.44
50 Major Rural Banks	23.31	0.65	4.79	4.78	4.26

Chart 25

Distribution of NPL +SML Ratio of Major City Banks as of End of 2018



Divergence of asset quality performance is significant among city banks.

Note: Eastern China includes Shandong, Jiangsu, Anhui, Zhejiang, Fujian, and Shanghai; Northern China includes Beijing, Tianjin, Hebei, Shanxi, and Inner Mongolia; Southern China includes Guangdong, Guangxi, Hainan; Central China includes Henan, Hubei, Hunan; Southwest China includes Sichuan, Yunnan, Guizhou, Tibet, Chongqing; Northwest China includes Ningxia, Xinjiang, Qinghai, Shaanxi, Gansu; Northeast China includes Liaoning, Heilongjiang and Jilin. Sources: S&P Global Market Intelligence Database, public information of banks, collected & adjusted by S&P Global (China) Ratings.

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Characteristics of Banks with Different Indicative Risk Position Scores

Score	Typical Profile
1	Risk appetite is much lower than the industry average, and the asset quality is generally insensitive to the economic cycle in China.
2	Risk management is better than the industry average, risk appetite is prudent, and the asset quality performance is better than the industry average through the economic cycle.
3	Risk management capability and asset quality performance are consistent with the industry average.
4	Risk management capability and asset quality performance are somewhat worse than the industry average.
5	Risk management capability and asset quality performance are worse than the industry average.
6	Risk management capability and asset quality performance are far worse than the industry average, and there may be serious flaws with its overall internal control.

Chart 26

Indicative Risk Position Score Distribution of 166 Major Domestic Banks in China



A few city banks are faced with bad debt challenges due to the slowdown in local economic growth

Note 1: For our testing purpose, we score the risk position of banks on a scale of 1 to 6.1 means the strongest position and 6 means the weakest.

Note 2: The indicative scores expressed in this report are S&P China's indicative views of risk factors 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 part of a credit rating.

Source: S&P Global (China) Ratings.

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Funding & Liquidity

Compared with rural banks, city banks typically have a weaker retail deposit base and rely more on wholesale funding. We believe there are two major reasons for this. First, city banks tend to be more aggressive in their business expansion. Second, city banks compete for deposits with national banks in urban areas where the business footprints of national banks tend to be strong, while rural banks typically have a more solid deposit base, particularly retail deposit base, in county and rural areas where national banks have less of a presence.

Chart 27

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

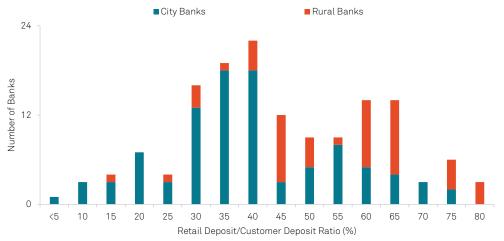


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Compared with rural banks, city banks typically rely more on wholesale funding.

Chart 28

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



Sources: S&P Global Market Intelligence Database, public information of banks, collected & adjusted by S&P Global (China) Ratings. Copyright ©2020 by S&P Ratings (China) Co., Ltd. All rights reserved.

After the Baoshang Bank takeover, the funding costs of many city banks rose, but their market spread came down to some extent in late 2019 because the central bank maintained an accommodative monetary policy environment, and systemwide liquidity was ample. We expect the liquidity profile of most city banks to remain adequate in 2020.

We also noticed that after the Baoshang Bank takeover, the average market spread of city banks became higher than that of rural banks. Before the Baoshang Bank takeover, rural banks typically had the highest spread because of their smaller sizes and generally more vulnerable risk position. After the Baoshang Bank takeover, city banks' spread became higher. We believe that this reversal in positions may be related to the fact that compared with rural banks, city banks rely more on wholesale funding.

Chart 29

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



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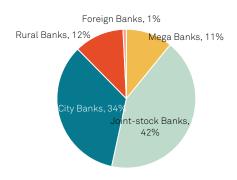
City banks typically have a weaker retail deposit base than rural banks because competition for retail deposits is more intense in urban areas.

City bank's funding costs in the interbank market have grown higher than those of rural banks in recent months.

In our view, investors have grown increasingly concerned about the asset quality and risk governance of city banks. As a result, city banks' liquidity risk has become correlated with their asset quality metrics. Therefore, if a city bank has a significant bad debt problem, its funding costs in the interbank market may rise.

Chart 30

NCD Issuance Size Breakdown in 2019

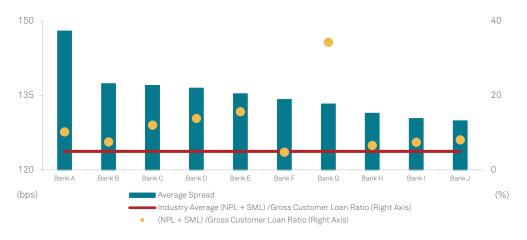


City banks have been very active issuers in the NCD market.

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Chart 31

Asset Quality Metrics of City Banks with Highest 3M NCD Z-Spread



When a city bank has a significant bad debt problem, its funding costs in the interbank market may rise.

 $Note 1: The \ analysis \ of \ NCDs \ includes \ 3M\ NCDs \ is sued from \ June \ 2019 \ to \ January \ 2020. \ The \ average \ 3M\ NCD \ z-spread \ of \ the \ 100 \ major \ city \ banks for \ this \ period \ is \ 99 \ bps.$

Note 2: The asset quality data is as of the end of 2018.

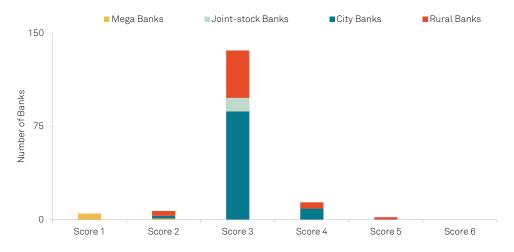
Note 3: z-spread = 3M NCD issuance rate - 3M treasury note spot rate Source: Wind, collected and adjusted by S&P Global (China) Ratings. Copyright ©2020 by S&P Ratings (China) Co., Ltd. All rights reserved.

Characteristics of Banks with Different Indicative Funding & Liquidity Scores

Score	Typical Profiles
1	Strongest retail deposit base across China, and lower-than-industry-average reliance on wholesale funding. Strongest liquidity position in China and tendency to benefit from "flight to quality" phenomenon when the market is stressed, thanks to very strong investor confidence.
2	Strong deposit base in its region, lower-than-industry-average reliance on wholesale funding, and conservative liquidity management with superior liquidity-related ratios compared with the industry average.
3	Funding structure and liquidity position consistent with the industry average, with sufficient liquidity to meet minimum regulatory requirement on liquidity ratios even when the market is stressed.
4	Funding structure and liquidity position somewhat worse than the industry average, typically with a high reliance on wholesale funding, but still able to meet minimum regulatory requirements on liquidity ratios under normal market circumstances.
5	Liquidity position worse than the industry average, and the bank may have persistent difficulty in meeting minimum regulatory requirements on liquidity ratios when the market is stressed.
6	Eroded market confidence in the bank leading to a highly unpredictable liquidity position, high chance of requiring central bank intervention for liquidity support.

With ample systemwide liquidity, city banks generally tend to have adequate liquidity profiles and we regard most city banks as having average funding & liquidity profiles.

Chart 32
Indicative Funding & Liquidity Score Distribution of 166 Major Domestic Banks in China



2020.

We expect the

liquidity profiles of most city banks to remain adequate in

Note 1: For our testing purpose, we score the funding and liquidity position of banks on a scale of 1 to 6. 1 means the strongest position and 6 means the weakest.

Note 2: The indicative scores expressed in this report are S&P China's indicative views of risk factors 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 part of a credit rating.

Source: S&P Global (China) Ratings.

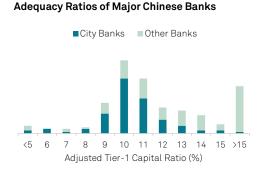
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Stand-alone Credit Quality

Compared with big national banks where financial ratios tend to be clustered, city banks' financial ratios show significant divergency. In our view, this vast difference can be attributed to the very different economic environments across different regions and varying quality of bank management, particularly risk management.

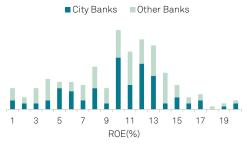
Chart 33

Financial Metrics of City Banks in Comparison with Other Major Chinese Banks as of End of 2018



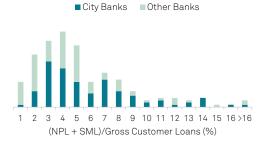
Distribution of Adjusted Tier-1 Capital

Distribution of ROE of Major Chinese Banks in 2018

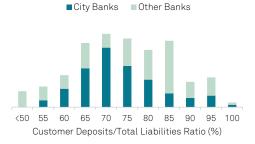


City banks' financial ratios show significant divergency.

Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



 $Sources: S\&P\ Global\ Market\ Intelligence\ Database,\ public\ information\ of\ banks,\ collected\ and\ adjusted\ by\ S\&P\ Global\ (China)\ Ratings\ Copyright\ @2020\ by\ S\&P\ Ratings\ (China)\ Co.,\ Ltd.\ All\ rights\ reserved.$

According to our testing results, the most influential factors on the stand-alone credit quality of city banks include business franchise and asset quality.

Table 2

Medians of Key Financial Ratios of City Banks Grouped by Indicative Stand-alone Credit Quality as of End of 2018

Indicative Stand- alone Credit Quality	Total Deposits (bil)	Reported Tier-1 Capital Adequacy Ratio (%)	Return on Equity (%)	NPL Ratio (%)	NPL+SML Ratio (%)	Customer Deposits/Total Liabilities (%)	Retail Deposits/ Customer Deposits (%)
[a]*	709	11	14	1	2	62	21
[bbb]*	136	10	11	2	4	69	32
[bb]*	83	10	6	2	8	67	38
[b]*	78	9	7	3	13	77	49

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

Note 3: All the indicative stand-alone credit quality categories in this table can be adjusted with "+" and "-".

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External Support

Despite the economic headwinds in 2020, we expect the city bank segment to remain stable because the Chinese government has a clear supportive stance towards it. The importance of city banks to the government lies in their role in supporting the private sector, particularly small and micro businesses and the government's overriding prioritization of financial stability. Nonetheless, in our view, the government doesn't guarantee full payment to all city bank creditors, as demonstrated by its handling of the Baoshang Bank takeover. Therefore, the extent and timeliness of government support for a specific city bank requires case-by-case analysis.

The government has looked to maintain a delicate balance between keeping overall financial stability and discouraging irresponsible behavior by banks and investors. The government's effective takeover of Baoshang Bank and orderly reorganization of the destressed institution stabilized the financial market and contained spillover risk in 2019. The market sentiment calmed down significantly in late 2019 as demonstrated by the lower funding costs for city banks on the interbank market. However, wholesale creditors of Baoshang Bank still suffered limited credit losses. We interpret such losses as intentional, as authorities moved to elevate awareness of credit risk among banks and other institutional investors.

According to our criteria, a city bank's government support level generally depends on three major factors: the city bank's stand-alone credit quality; the importance level of the bank to its city, province and nation; and the credit standing of the related governments.

In our view, the following factors are important when assessing the importance level of a city bank to its local government: (1) the bank's size and contagion/spillover risk when it is stressed; (2) the bank's ownership structure and corporate governance practices; (3) the bank's role in supporting the grassroots economy and fulfilling other roles that are important to the government; and (4) regulatory compliance records in its daily operations.

We believe that different levels of government may coordinate with each other in supporting city banks. For city banks, liquidity support is typically provided through the central bank system, while capital injection is typically managed by local governments initially before a higher level of

government steps in. Taking the reorganization of Baoshang Bank as an example, the regional government and local state-owned enterprises plan to invest in the new bank's equity, together with Deposit Insurance Fund Management Company of China and Huishang Bank, a large city bank which suffered losses in the resolution process.

Typically, we view a state-owned city bank as having high importance to its city, moderate importance to its province and low importance to the central government. As for privately-owned city banks, we generally view the probability of government support as more uncertain when compared with state-owned banks.

Chart 34

Distribution of Indicative Support Notch Uplift of 100 Major City Banks



The possibility of government support varies for city banks, and depends on various factors such as size, ownership, role in local economy and compliance records.

Note: 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.

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Issuer Credit Quality

Thanks to higher geographic concentration and smaller business franchise when compared with national banks, city banks' indicative issuer credit quality is typically weaker than leading national banks. The highest indicative issuer credit quality of a city bank in this round of testing is $[AA_{spc}]$. City banks with an indicative issuer credit quality of $[AA_{spc}]$ or $[A_{spc}]$ category have an above-average credit standing when compared with their city bank peers. They tend to be well-managed large city banks with good geographic diversification or smaller ones operating in economically developed regions with very capable management teams.

The issuer credit quality of city banks varies significantly. A few have had their capital somewhat weakened due to increasing bad debts, and their indicative issuer credit quality would typically be in $[BB_{\text{spc}}]$ category. We view these banks as viable if they can raise new capital and repair their balance sheets in the next few years. In addition, there are a few city banks with material capitalization pressure due to failed risk management and internal control in the past few years, which we typically view as $[B_{\text{spc}}]$ category banks.

Table 3

Medians of Key Ratios of City Banks Grouped by Indicative Issuer Credit Quality as of End of 2018

Indicative Issuer Credit Quality	Total Deposit(bil)	Reported Tier-1 Capital Adequacy Ratio (%)	Return on Equity (%)	NPL Ratio (%)	NPL +SML Ratio (%)	Customer Deposits /Total Liabilities (%)	Retail Deposits/ Customer Deposits (%)	State Ownership (%)
[AA-]*	1,042	11	12	1	2	58	21	24
[A]*	228	10	11	2	4	67	30	34
[BBB]*	89	10	10	2	5	71	38	35
[BB]*	68	9	9	2	8	69	34	13
[B]*	64	7	3	6	14	77	54	46

 $Note \ 1: Our \ assessment \ of indicative issuer \ credit \ quality \ considers \ the \ possibility \ of \ group \ or \ government \ support \ in \ times \ of \ stress.$

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.

Note 3: Except for [AA-], all the indicative issuer credit quality categories in this table can be adjusted with "+" and "-".

Note 4: Return on equity = net income/ [(total equity at the beginning of the year +total equity at the end of the year)/2]

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Appendix 1: 3M NCD Market Spread of City Banks by Region

Region	Number of Banks which Issued 3M NCD	Average Issuance Size (mil.)	Max Z-spread (bps)	Min Z-spread (bps)	Avg Z-spread (bps)	Std Dev of Z- spread (bps)
Anhui	1	1,027.14	48.57	48.57	48.57	N/A
Beijing	1	1,305.00	50.41	50.41	50.41	N/A
Jiangsu	3	1,193.39	64.41	37.66	51.62	13.41
Shanghai	1	2,043.61	53.02	53.02	53.02	N/A
Shaanxi	1	500.67	57.33	57.33	57.33	N/A
Hunan	2	396.63	61.29	54.40	57.84	4.87
Guizhou	1	1,102.50	61.08	61.08	61.08	N/A
Gansu	2	630.00	79.90	61.40	70.65	13.08
Tianjin	1	633.56	71.42	71.42	71.42	N/A
Chongqing	2	333.89	93.71	50.86	72.29	30.30
Jiangxi	4	310.26	80.54	66.03	74.65	6.23
Fujian	4	516.79	90.27	59.68	78.39	14.78
Hubei	2	633.71	84.37	73.53	78.95	7.66
Guangdong	5	429.10	99.34	59.23	79.06	18.54
Zhejiang	11	363.86	120.71	45.75	92.10	24.93
Henan	4	232.93	141.73	58.15	99.06	44.71
Jilin	1	129.17	99.50	99.50	99.50	N/A
Hebei	8	198.57	121.89	57.08	101.30	23.21
Guangxi	3	196.70	111.09	91.29	104.33	11.29
Xinjiang	3	303.66	164.62	60.86	107.75	52.59
Shandong	11	209.04	136.98	61.56	107.96	28.51
Heilongjiang	2	224.40	119.78	96.16	107.97	16.71
Qinghai	1	120.00	113.46	113.46	113.46	N/A
Yunnan	3	199.15	134.16	99.96	114.62	17.62
Tibet	1	750.00	121.25	121.25	121.25	N/A
Hainan	1	146.00	121.70	121.70	121.70	N/A
Ningxia	2	170.52	147.96	97.49	122.73	35.68
Sichuan	10	210.21	141.58	57.27	123.59	26.76
Shanxi	5	141.46	147.82	79.62	125.66	26.47
Liaoning	9	263.81	238.57	69.03	128.73	47.51
Inner Mongolia	4	205.09	154.80	114.94	132.72	18.90

 $Note 1: The \ analysis \ includes \ city \ commercial \ banks \ which is sued \ 3M \ NCDs \ from \ June \ 2019 \ to \ January \ 2020, \ ranked \ by \ average \ z-spread.$

Note 2: z-spread = 3M NCD issuance rate - 3M treasury note spot rate.

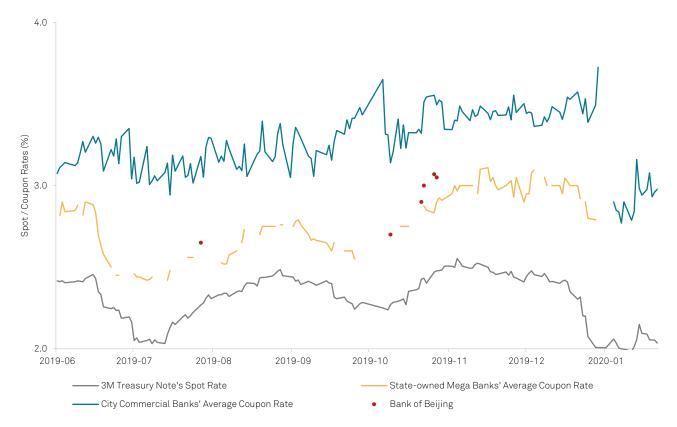
Source: Wind, collected and adjusted by S&P Global (China) Ratings.

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Appendix 2: Credit Quality Snapshot of Selected City Banks

Chart 1

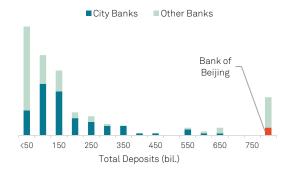
3M NCD Coupon Rates of City Banks in Beijing in Comparison with the Industry



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Key Financial Metrics of Bank of Beijing in Comparison with the Industry as of End of 2018

Distribution of Total Deposits of Major Chinese Banks



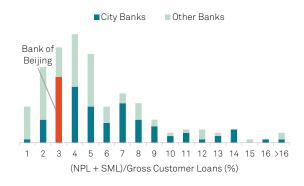
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



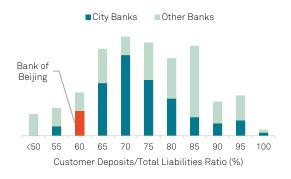
Distribution of ROE of Major Chinese Banks in 2018



Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

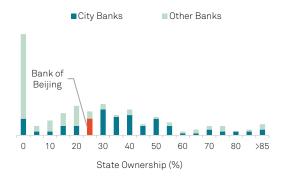
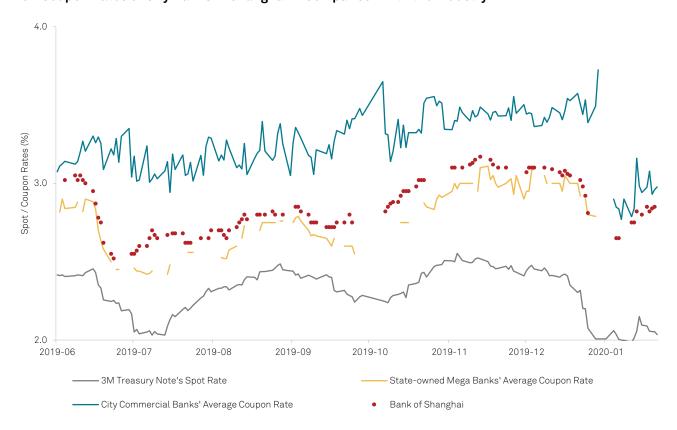


Chart 3

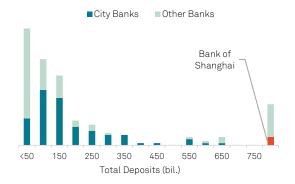
3M NCD Coupon Rates of City Banks in Shanghai in Comparison with the Industry



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Key Financial Metrics of Bank of Shanghai in Comparison with the Industry as of End of 2018

Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



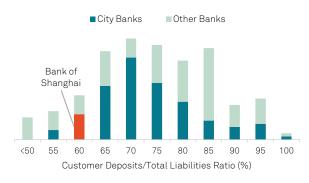
Distribution of ROE of Major Chinese Banks in 2018



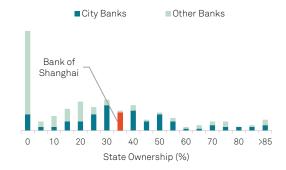
Distribution of NPL+SML Ratio of Major Chinese Banks



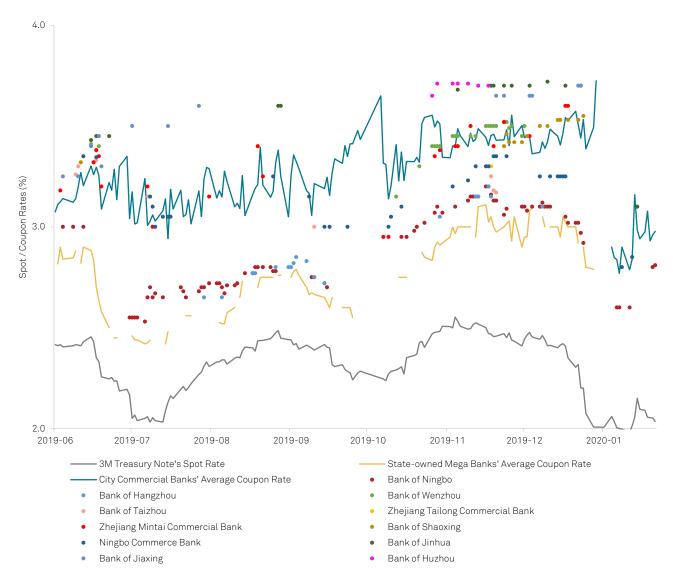
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks



3M NCD Coupon Rates of City Banks in Zhejiang in Comparison with the Industry



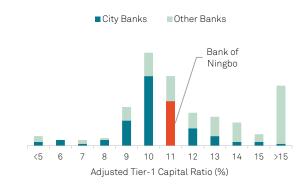
Source: Wind, collected and adjusted by S&P Global (China) Ratings. Copyright ©2020 by S&P Ratings (China) Co., Ltd. All rights reserved.

Key Financial Metrics of Bank of Ningbo in Comparison with the Industry as of End of 2018

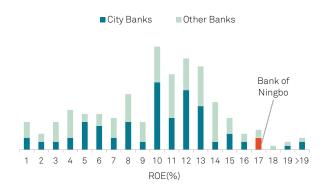
Distribution of Total Deposits of Major Chinese Banks

©City Banks ©Other Banks Bank of Ningbo 450 150 250 350 450 550 650 750 Total Deposits (bil.)

Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



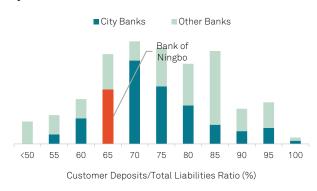
Distribution of ROE of Major Chinese Banks in 2018



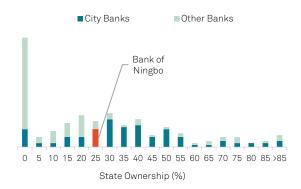
Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks

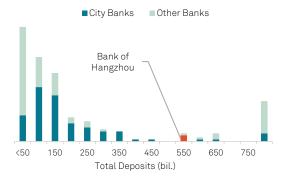


Distribution of State Ownership of Major Chinese Banks



Key Financial Metrics of Bank of Hangzhou in Comparison with the Industry as of End of 2018

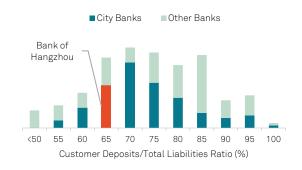
Distribution of Total Deposits of Major Chinese Banks



Distribution of ROE of Major Chinese Banks in 2018



Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



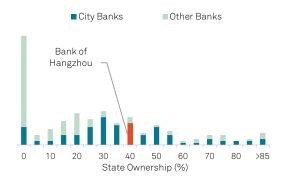
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks



Key Financial Metrics of Bank of Taizhou in Comparison with the Industry as of End of 2018

Distribution of Total Deposits of Major Chinese Banks

Bank of Taizhou | Solution | Taizhou | Total Deposits (bil.) | Total Deposits

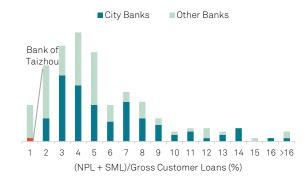
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



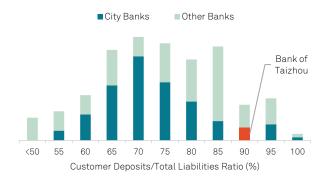
Distribution of ROE of Major Chinese Banks in 2018



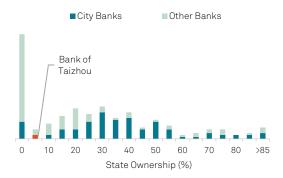
Distribution of NPL+SML Ratio of Major Chinese Banks



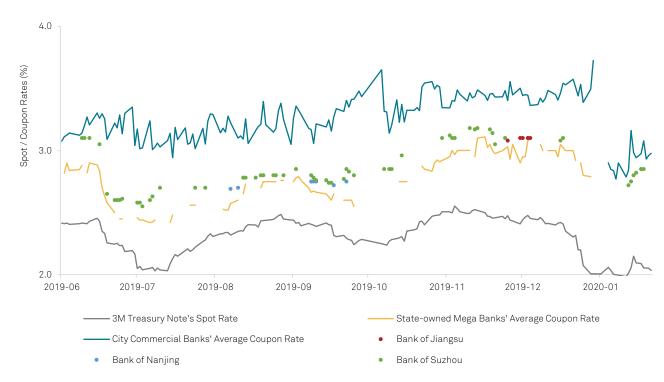
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

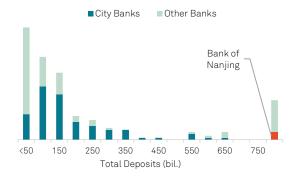


3M NCD Coupon Rates of City Banks in Jiangsu in Comparison with the Industry

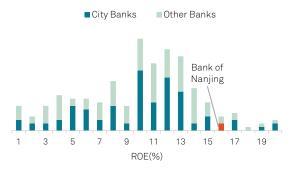


Key Financial Metrics of Bank of Nanjing in Comparison with the Industry as of End of 2018

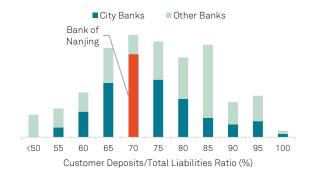
Distribution of Total Deposits of Major Chinese Banks



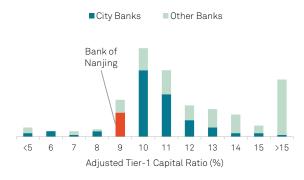
Distribution of ROE of Major Chinese Banks in 2018



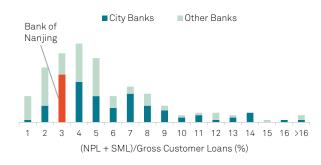
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



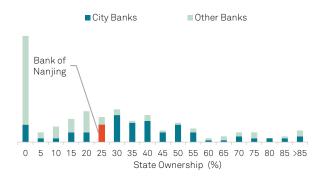
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



Distribution of NPL+SML Ratio of Major Chinese Banks

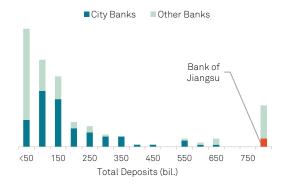


Distribution of State Ownership of Major Chinese Banks



Key Financial Metrics of Bank of Jiangsu in Comparison with the Industry as of End of 2018

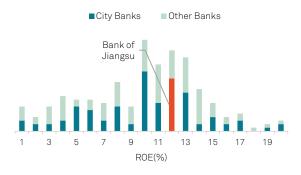
Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



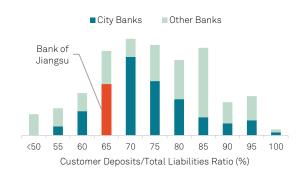
Distribution of ROE of Major Chinese Banks in 2018



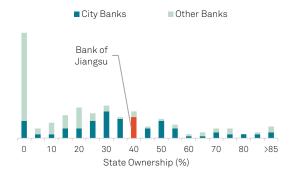
Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks



Key Financial Metrics of Bank of Suzhou in Comparison with the Industry as of End of 2018

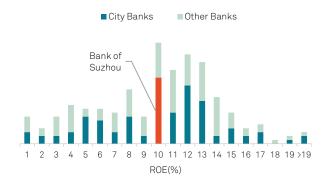
Distribution of Total Deposits of Major Chinese Banks

©City Banks ©Other Banks Bank of Suzhou Suzhou 450 150 250 350 450 550 650 750 Total Deposits (bil.)

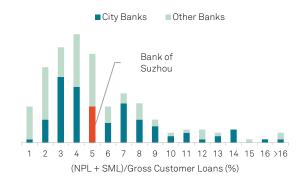
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



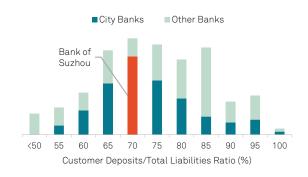
Distribution of ROE of Major Chinese Banks in 2018



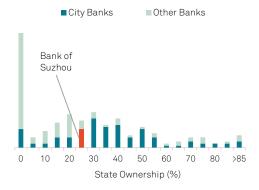
Distribution of NPL+SML Ratio of Major Chinese Banks



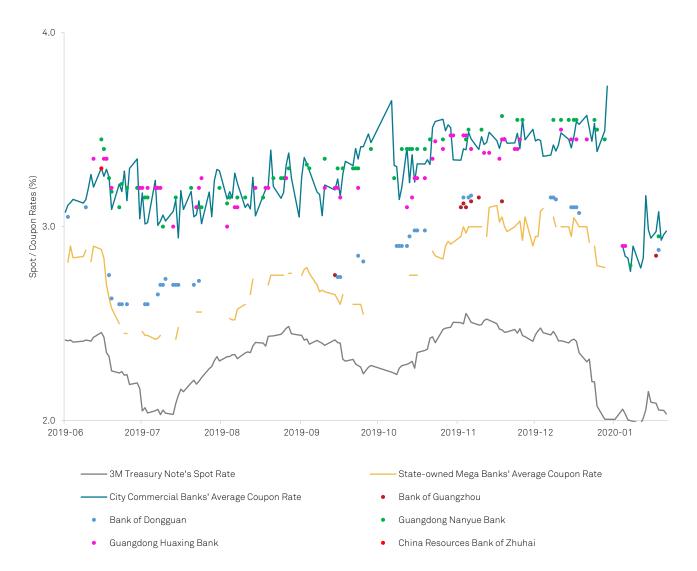
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

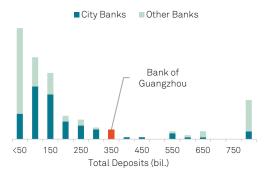


3M NCD Coupon Rates of City Banks in Guangdong in Comparison with the Industry

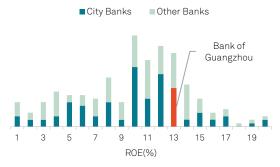


Key Financial Metrics of Bank of Guangzhou in Comparison with the Industry as of End of 2018

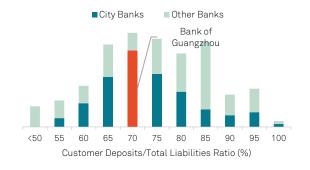
Distribution of Total Deposits of Major Chinese Banks



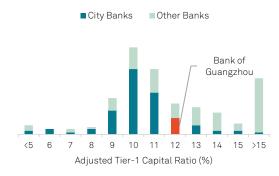
Distribution of ROE of Major Chinese Banks in 2018



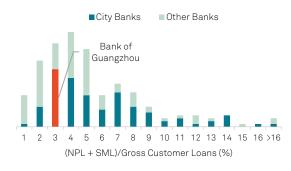
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



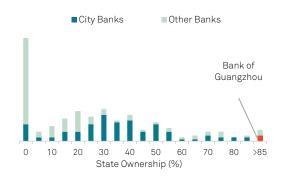
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



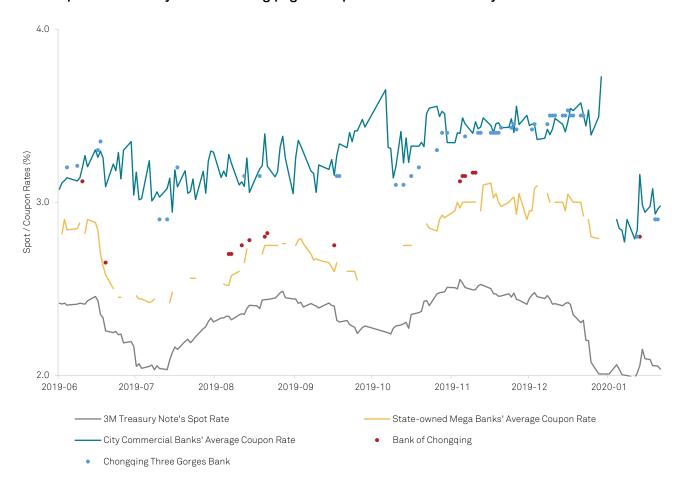
Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

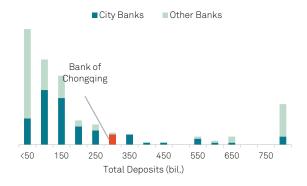


3M NCD Coupon Rates of City Banks in Chongqing in Comparison with the Industry

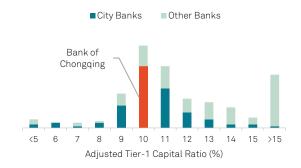


Key Financial Metrics of Bank of Chongqing in Comparison with the Industry as of End of 2018

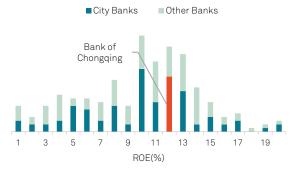
Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



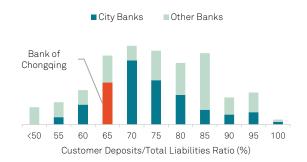
Distribution of ROE of Major Chinese Banks in 2018



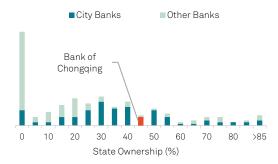
Distribution of NPL+SML Ratio of Major Chinese Banks



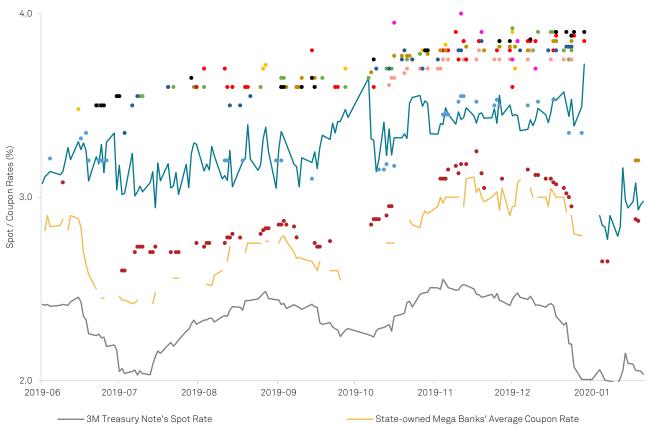
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks



3M NCD Coupon Rates of City Banks in Sichuan in Comparison with the Industry



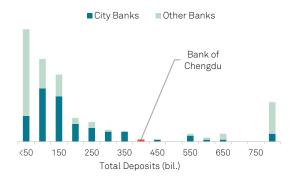
- 3M Treasury Note's Spot Rate
- City Commercial Banks' Average Coupon Rate
- Sichuan Tianfu Bank
- Mianyang City Commercial Bank
- Bank of Dazhou
- Great Wall West China Bank
- Yaan City Commercial Bank

Bank of Chengdu Leshan City Commercial Bank

- Luzhou Bank
- Suining Bank
- Panzhihua Commercial Bank

Key Financial Metrics of Bank of Chengdu in Comparison with the Industry as of End of 2018

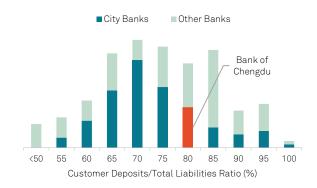
Distribution of Total Deposits of Major Chinese Banks



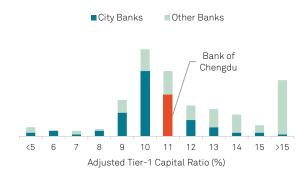
Distribution of ROE of Major Chinese Banks in 2018



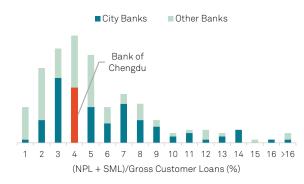
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



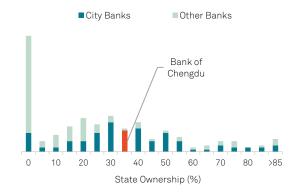
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



Distribution of NPL+SML Ratio of Major Chinese Banks

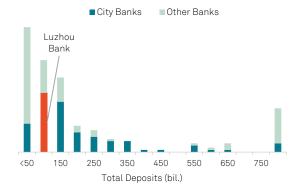


Distribution of State Ownership of Major Chinese Banks



Key Financial Metrics of Luzhou Bank in Comparison with the Industry as of End of 2018

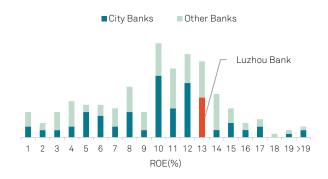
Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



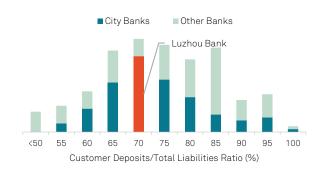
Distribution of ROE of Major Chinese Banks in 2018



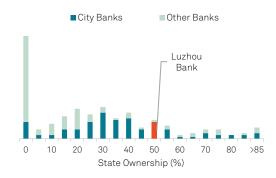
Distribution of NPL+SML Ratio of Major Chinese Banks



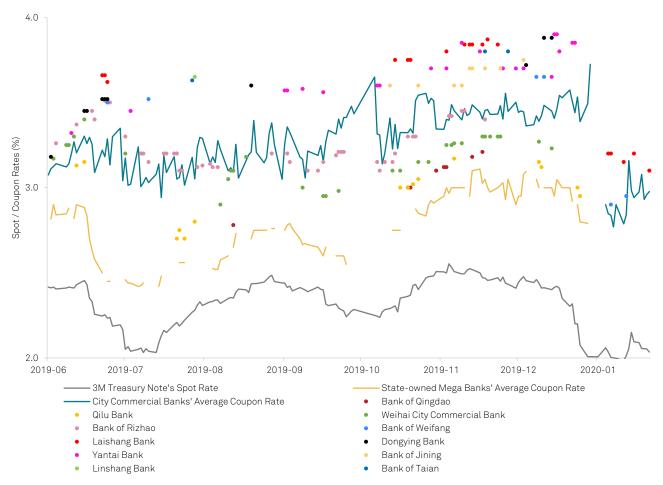
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

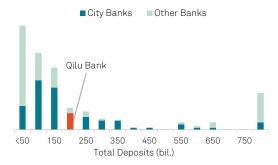


3M NCD Coupon Rates of City Banks in Shandong in Comparison with the Industry

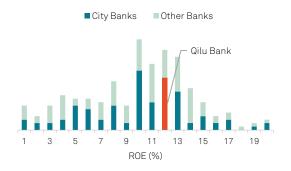


Key Financial Metrics of Qilu Bank in Comparison with the Industry as of End of 2018

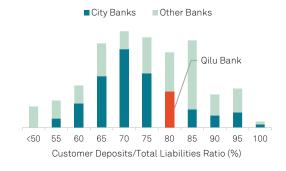
Distribution of Total Deposits of Major Chinese Banks



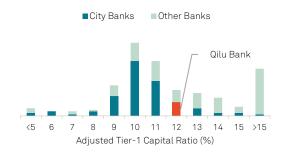
Distribution of ROE of Major Chinese Banks in 2018



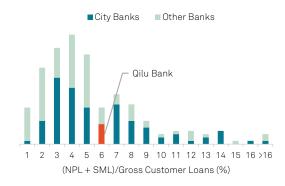
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



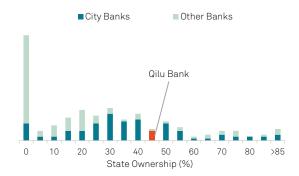
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



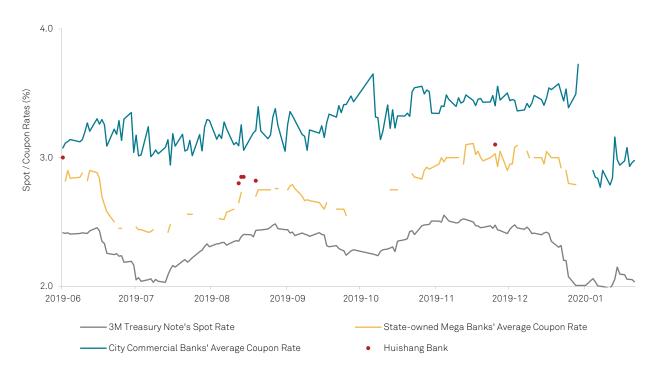
Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks



3M NCD Coupon Rates of City Banks in Anhui in Comparison with the Industry

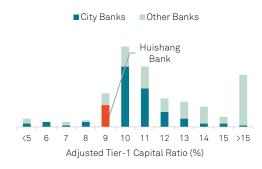


Key Financial Metrics of Huishang Bank in Comparison with the Industry as of End of 2018

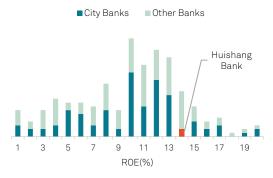
Distribution of Total Deposits of Major Chinese Banks

City Banks Other Banks Huishang Bank <50 150 250 350 450 550 650 750 Total Deposits (bil.)

Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



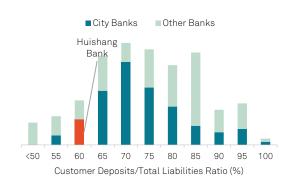
Distribution of ROE of Major Chinese Banks in 2018



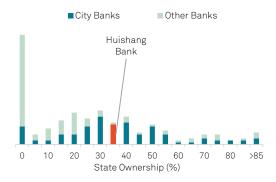
Distribution of NPL+SML Ratio of Major Chinese Banks



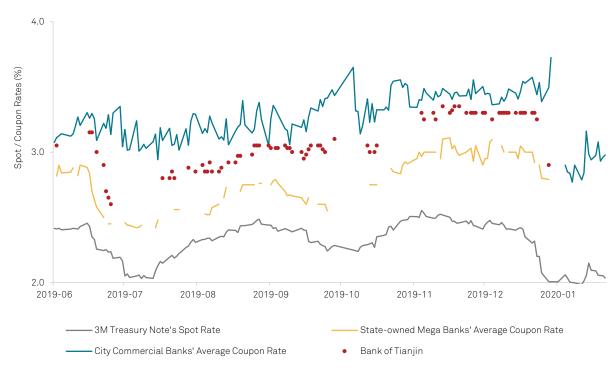
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

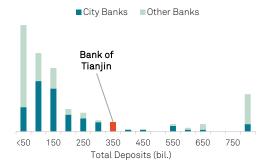


3M NCD Coupon Rates of City Banks in Tianjin in Comparison with the Industry

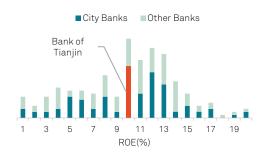


Key Financial Metrics of Bank of Tianjin in Comparison with the Industry as of End of 2018

Distribution of Total Deposits of Major Chinese Banks



Distribution of ROE of Major Chinese Banks in 2018



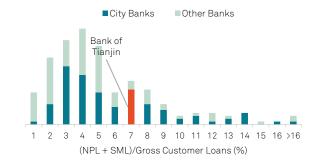
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



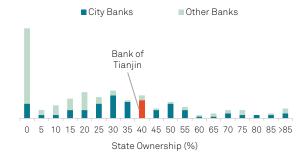
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



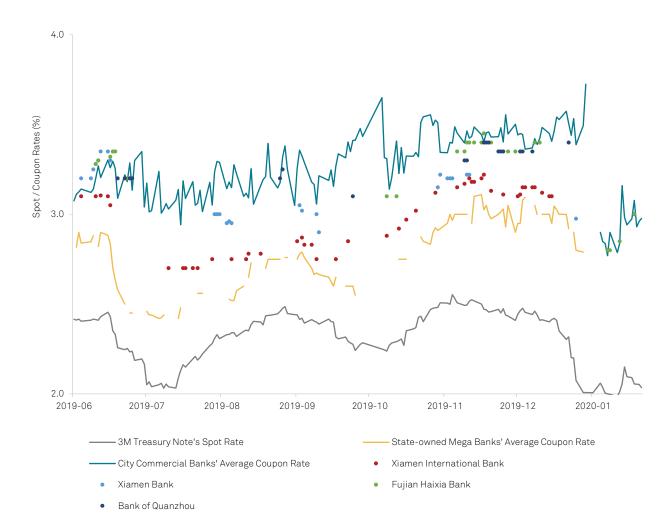
Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

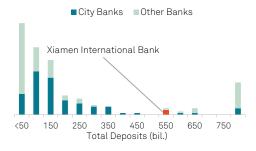


3M NCD Coupon Rates of City Banks in Fujian in Comparison with the Industry

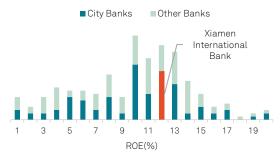


Key Financial Metrics of Xiamen International Bank in Comparison with the Industry as of End of 2018

Distribution of Total Deposits of Major Chinese Banks



Distribution of ROE of Major Chinese Banks in 2018



Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



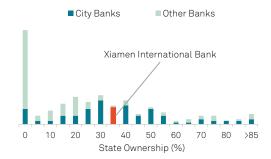
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



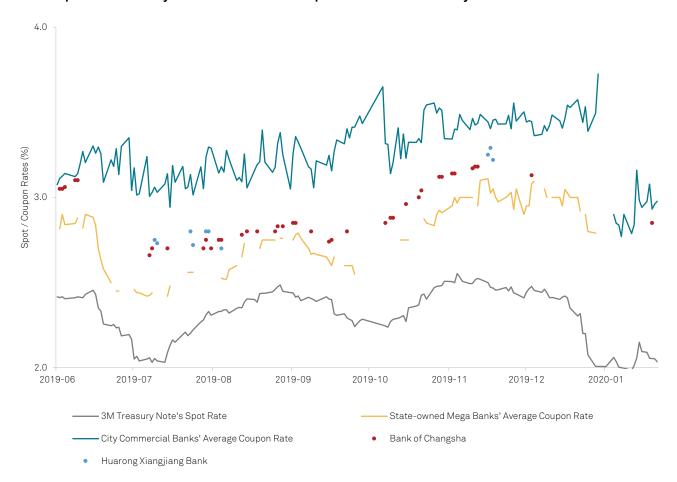
Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

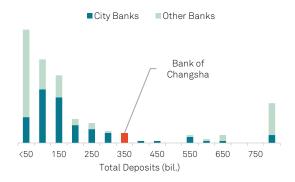


3M NCD Coupon Rates of City Banks in Hunan in Comparison with the Industry

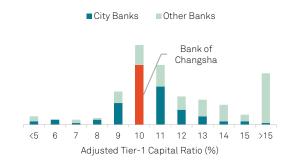


Key Financial Metrics of Bank of Changsha in Comparison with the Industry as of End of 2018

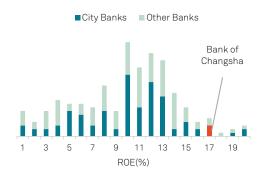
Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



Distribution of ROE of Major Chinese Banks in 2018



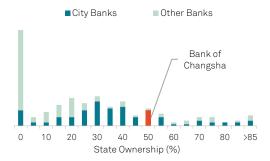
Distribution of NPL+SML Ratio of Major Chinese Banks



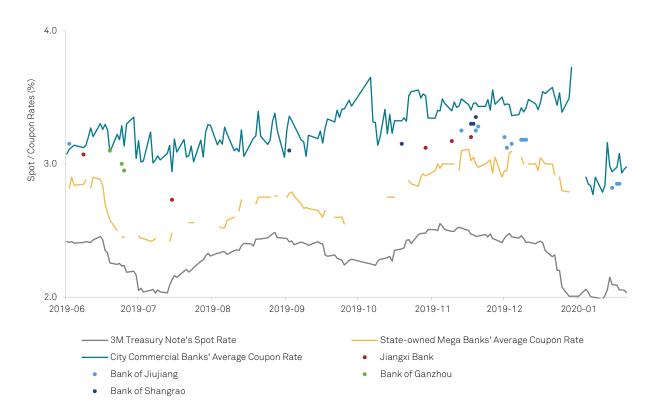
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks



3M NCD Coupon Rates of City Banks in Jiangxi in Comparison with the Industry

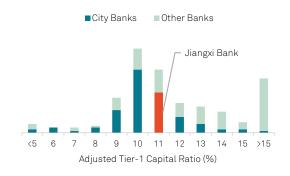


Key Financial Metrics of Jiangxi Bank in Comparison with the Industry as of End of 2018

Distribution of Total Deposits of Major Chinese Banks

Jiangxi Bank Jiangxi Bank 750 150 250 350 450 550 650 750 Total Deposits (bil.)

Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



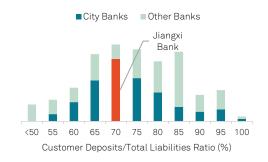
Distribution of ROE of Major Chinese Banks in 2018



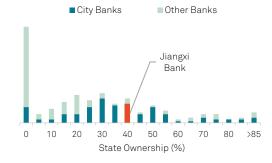
Distribution of NPL+SML Ratio of Major Chinese Banks



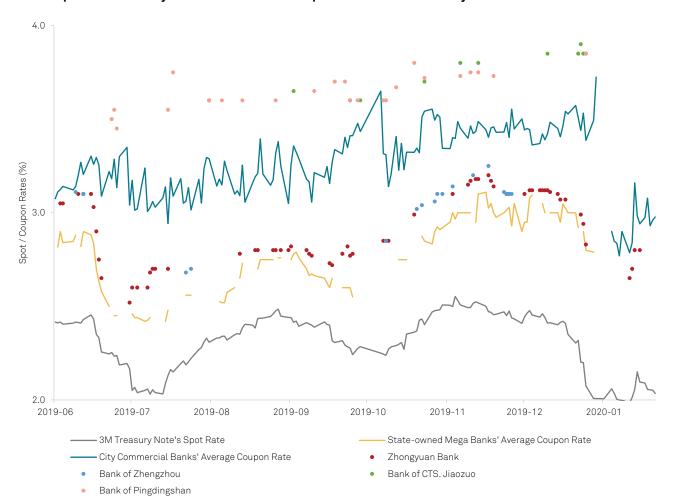
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks



3M NCD Coupon Rates of City Banks in Henan in Comparison with the Industry



Key Financial Metrics of Bank of Zhengzhou in Comparison with the Industry as of End of 2018

Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



Distribution of ROE of Major Chinese Banks in 2018



Distribution of NPL+SML Ratio of Major Chinese Banks



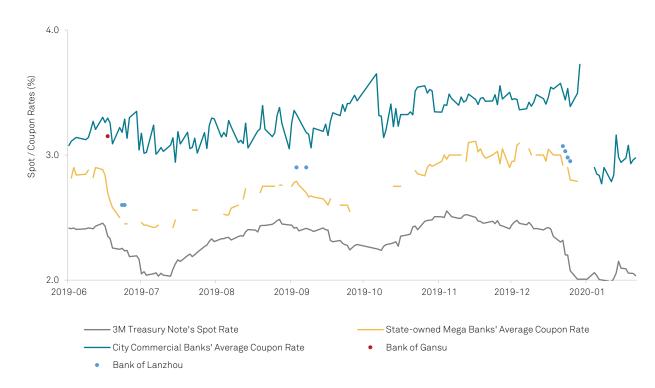
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

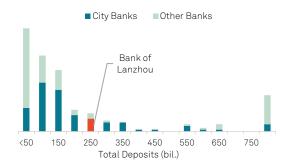


3M NCD Coupon Rates of City Banks in Gansu in Comparison with the Industry

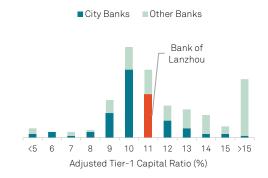


Key Financial Metrics of Bank of Lanzhou in Comparison with the Industry as of End of 2018

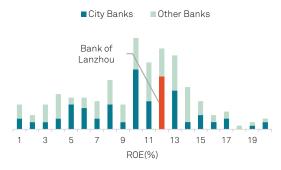
Distribution of Total Deposits of Major Chinese Banks



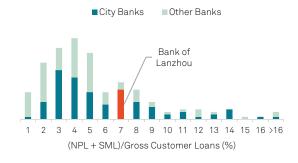
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



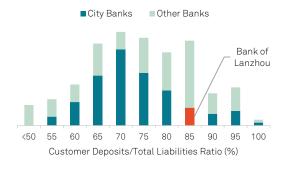
Distribution of ROE of Major Chinese Banks in 2018



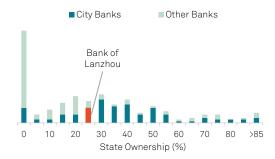
Distribution of NPL+SML Ratio of Major Chinese Banks



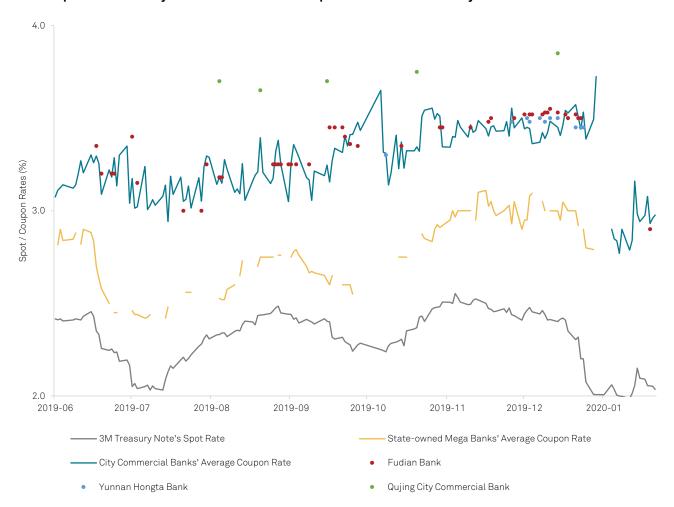
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

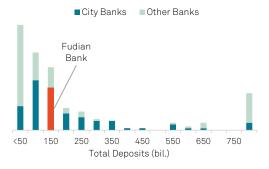


3M NCD Coupon Rates of City Banks in Yunnan in Comparison with the Industry

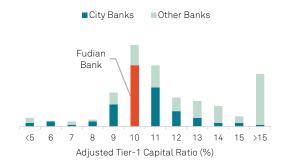


Key Financial Metrics of Fudian Bank in Comparison with the Industry as of End of 2018

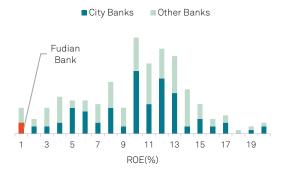
Distribution of Total Deposits of Major Chinese Banks



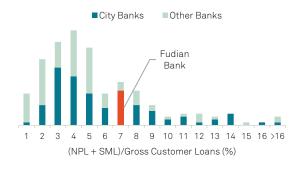
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



Distribution of ROE of Major Chinese Banks in 2018



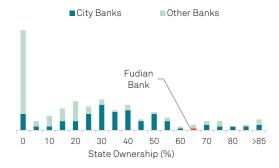
Distribution of NPL+SML Ratio of Major Chinese Banks



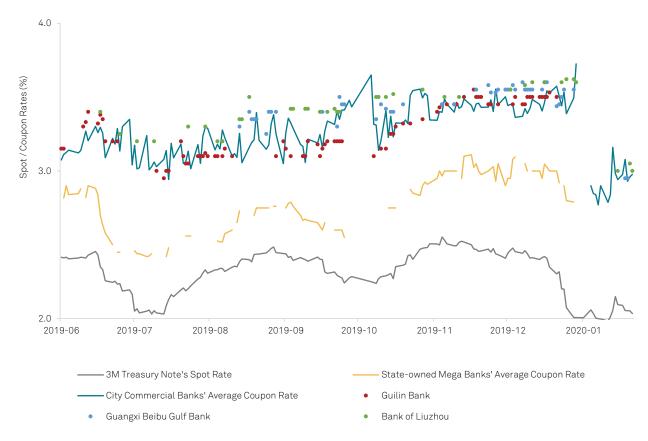
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

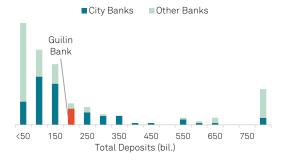


3M NCD Coupon Rates of City Banks in Guangxi in Comparison with the Industry



Key Financial Metrics of Guilin Bank in Comparison with the Industry as of End of 2018

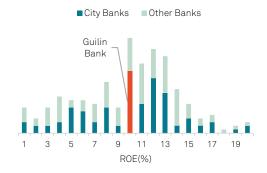
Distribution of Total Deposits of Major Chinese Banks



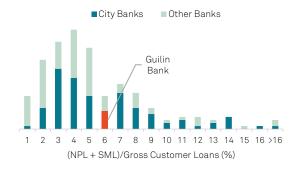
Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



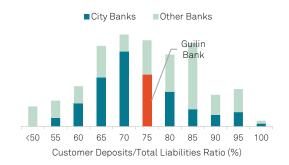
Distribution of ROE of Major Chinese Banks in 2018



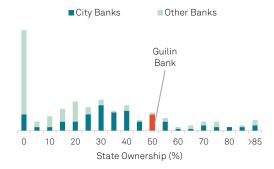
Distribution of NPL+SML Ratio of Major Chinese Banks



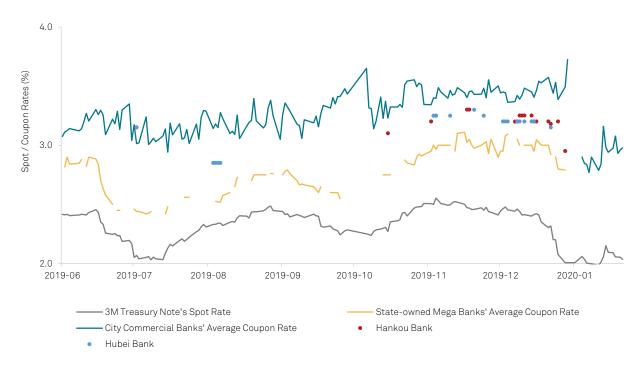
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

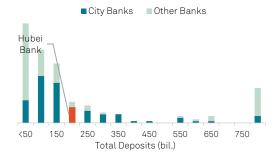


3M NCD Coupon Rates of City Banks in Hubei in Comparison with the Industry

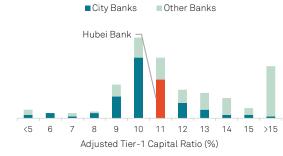


Key Financial Metrics of Hubei Bank in Comparison with the Industry as of End of 2018

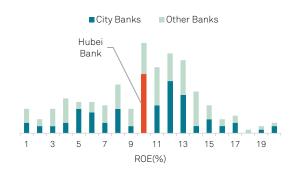
Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



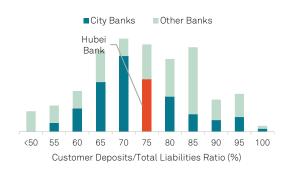
Distribution of ROE of Major Chinese Banks in 2018



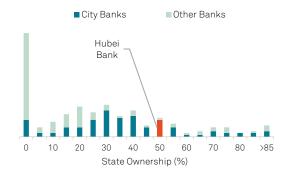
Distribution of NPL+SML Ratio of Major Chinese Banks



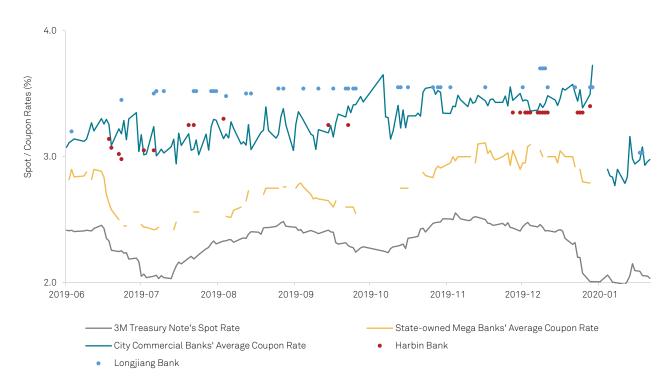
Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

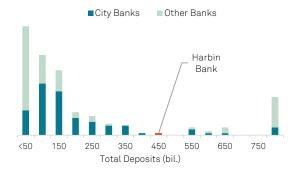


3M NCD Coupon Rates of City Banks in Heilongjiang in Comparison with the Industry



Key Financial Metrics of Harbin Bank in Comparison with the Industry as of End of 2018

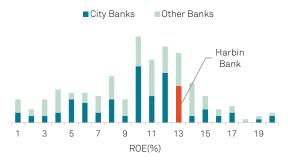
Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



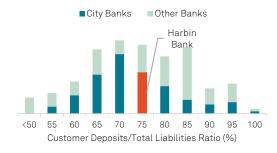
Distribution of ROE of Major Chinese Banks in 2018



Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks

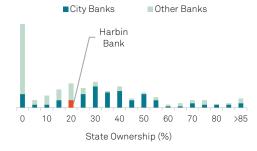
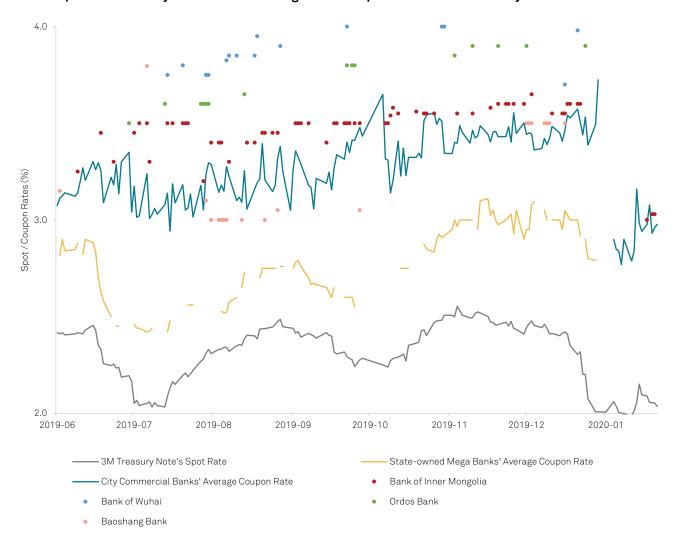


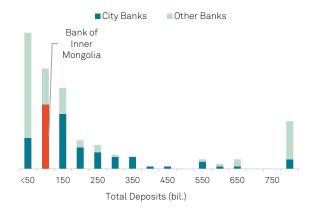
Chart 43

3M NCD Coupon Rates of City Banks in Inner Mongolia in Comparison with the Industry



Key Financial Metrics of Bank of Inner Mongolia in Comparison with the Industry as of End of 2018

Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



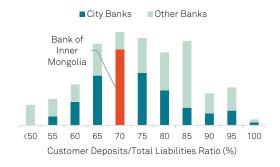
Distribution of ROE of Major Chinese Banks in 2018



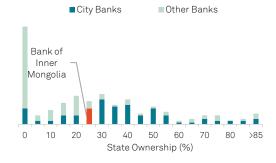
Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



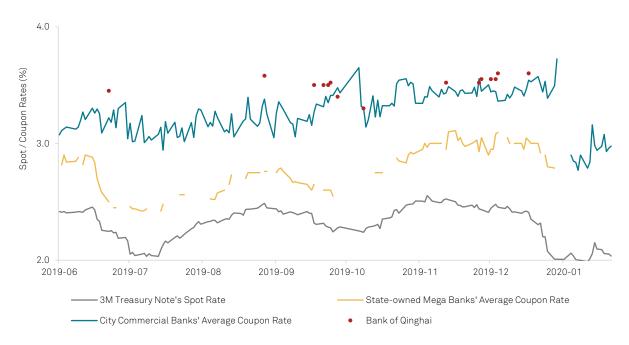
Distribution of State Ownership of Major Chinese Banks



A Study on the Credit Quality of City Banks in China

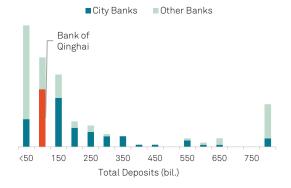
Chart 45

3M NCD Coupon Rates of City Banks in Qinghai in Comparison with the Industry



Key Financial Metrics of Bank of Qinghai in Comparison with the Industry as of End of 2018

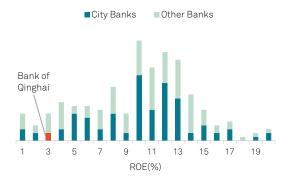
Distribution of Total Deposits of Major Chinese Banks



Distribution of Adjusted Tier-1 Capital Adequacy Ratio of Major Chinese Banks



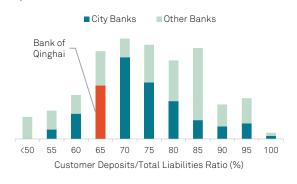
Distribution of ROE of Major Chinese Banks in 2018



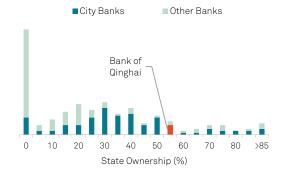
Distribution of NPL+SML Ratio of Major Chinese Banks



Distribution of Customer Deposits/Total Liabilities Ratio of Major Chinese Banks



Distribution of State Ownership of Major Chinese Banks



Appendix 3: Related Methodologies & Research

Methodology Applied:

- <u>S&P Global (China) Ratings Financial Institutions Methodology.</u>

Related Research & Commentary:

- S&P Global (China) Ratings General Considerations on Rating Modifiers and Relative Ranking.
- Diversity Across China's Banking System A Deep Dive A Study on Credit Quality
 Differentiation Among Chinese Banks.
- Key Differentiation Factors of Credit Quality of Domestic Banks in China.

A Study on the Credit Quality of City Banks in China

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