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S&P Global
China Ratings

Key Differentiation Factors of Credit Quality of Domestic Banks in China

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Key Takeaways

- We studied the relationship between our bank issuer credit quality testing results and the z-spreads of banks' NCDs and found that our credit views on banks are generally aligned with those of the market.
- Based on observed data, the market spreads of banks are most sensitive to their business sizes and asset quality.
- The strength of the local economy and the level of fragmentation of local banking markets have a significant impact on the market spread of regional banks.
- The reported capital adequacy ratios of some regional banks may have failed to reflect their true capitalization level due to significant under-provisioning.
- Under current stable market circumstances, the use of wholesale funding doesn't have a significant impact on the market spreads of banks.
- Although the government has a clear supportive stance toward the commercial banking industry, we believe the extent and timeliness of government support to any specific regional bank require case-by-case assessment.

Contents

Introduction

S&P Ratings (China) Co., Ltd. (S&P China) has conducted a desktop analysis of a selection of 166 domestic banks in China, including six mega banks, 11 joint-stock banks, 100 city banks and 49 rural banks, representing 91% of China's banking industry by assets. This report looks specifically into domestic banks, one sub-sector of the banking universe we examined in our other report (see Diversity Across China's Banking System – A Deep Dive A Study on Credit Quality Differentiation Among Chinese Banks, 21st October 2019).We have chosen these banks based on their asset size, representativeness of any specific type of bank and availability of public information. The analysis contained herein has been performed using S&P China Methodologies. S&P China Methodologies and analytical approaches are intended specifically for use in China only and are distinct from that used by S&P Global Ratings. An S&P China opinion must not be equated with or represented as an opinion by S&P Global Ratings or relied upon as an S&P Global Ratings opinion.

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

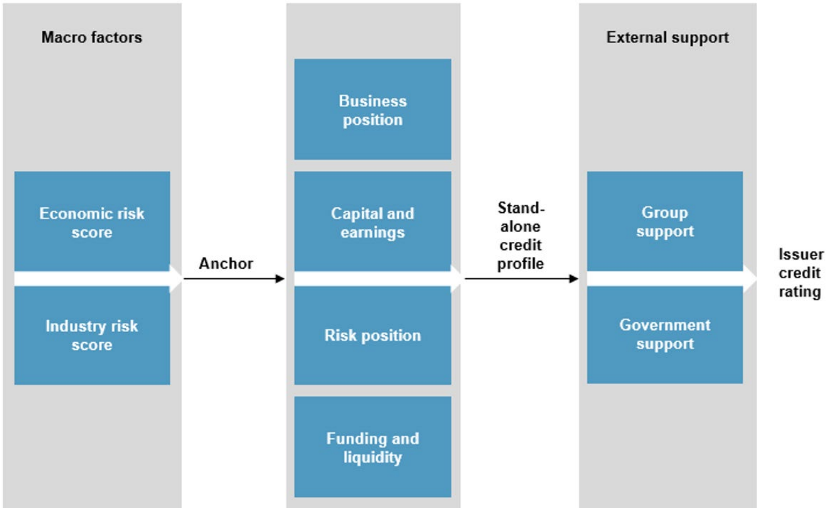
We have conducted this desktop analysis on individual institutions and present the results contained herein at an aggregate group level by types of institutions. The different sections of this research show the statistics and performance of different groups of institutions and the market more broadly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

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

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

Chart 1

Financial Institution Methodology Framework



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.

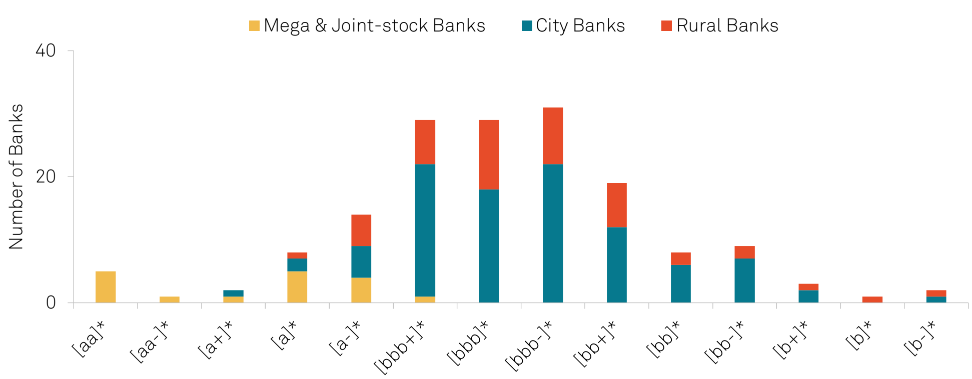
S&P Global (China) Ratings typically applies an anchor of 'bbb+' for banks.

Overview

In this commentary, we study the credit quality of 166 major domestic banks in China. The wide differentiation of stand-alone credit quality of these banks is explained not only by varying asset sizes, but also significant differences in capital base, risk position and funding & liquidity profile. While the mega banks and joint-stock banks tend to have similar financial ratios and generally sound credit standing, city and rural banks can be very different in terms of their credit quality profiles.

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 time of stress.

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

Source: S&P Global (China) Ratings.

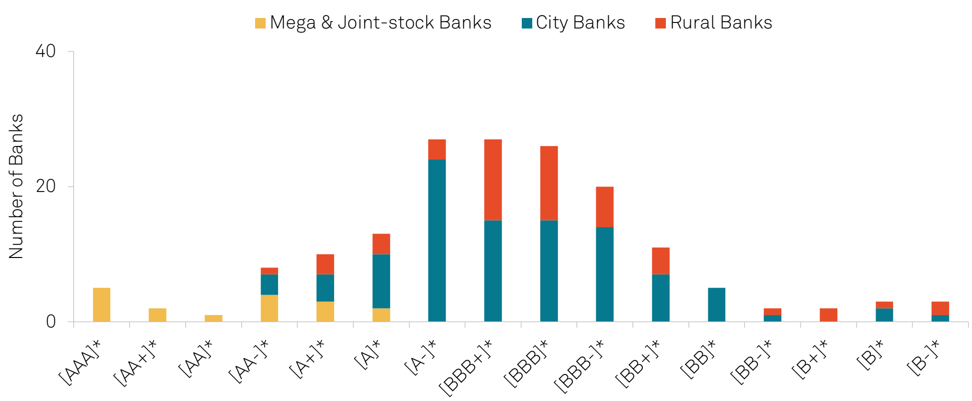
As China continues to rebalance its economy, credit quality differentiation among regional banks may widen.

Because of the high leverage nature of the banking business, we believe that banks' stand-alone credit quality should generally not receive [aaa$_{spc}$]. Access to government support is an integral part of our analysis of the overall credit quality for domestic banks in China.

Because of government support, the indicative issuer credit quality of many banks is higher than their indicative stand-alone credit quality. In our view, the government's incentive to support the overall banking system is strong, but the level of support an individual regional bank can receive in times of stress requires case-by-case analysis.

Chart 3

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



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

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

Source: S&P Global (China) Ratings.

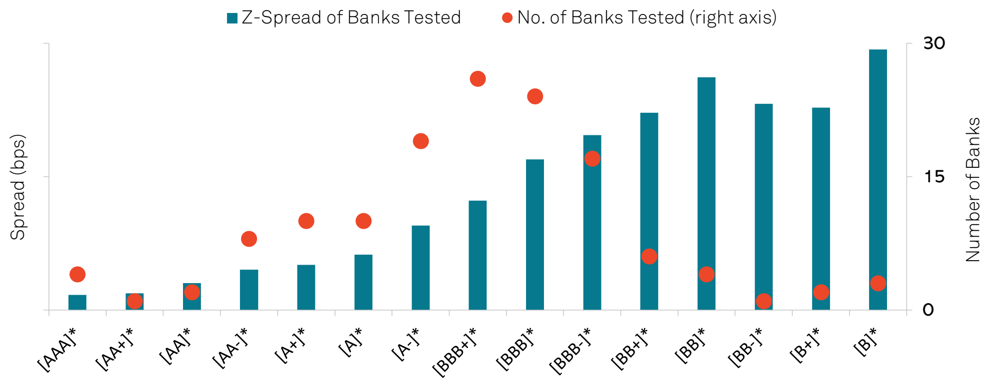
Because of government support, the indicative issuer credit quality of many banks is higher than their indicative stand-alone credit quality.

Z-spreads of Negotiable Certificates of Deposits ("NCD") are an effective way of gauging the market's assessment of the credit risk of different banks. Unsurprisingly, mega banks have the lowest z-spreads, followed by joint-stock banks and top-tier large city and rural banks. The distribution of the z-spreads of city and rural banks is wide thanks to the wide differentiation of their credit quality profiles.

We studied the relationship between our testing results and the z-spread of banks' NCDs and found that our credit views on banks are generally aligned with those of the market. We believe that the market already has a relatively good understanding of the credit risk divergence among domestic banks, and credit risk has already been factored into pricing in the interbank market.

Chart 4

3M NCD Spread Distribution of Major Domestic Banks Grouped by Indicative Issuer Credit Quality



Note 1: The samples in the chart include 5 mega banks, 11 joint-stock banks, 86 city banks, 35 rural banks we tested that issued 3-month NCD from Jun 1, 2019 to November 30, 2019.

Note 2: Our assessment of indicative issuer credit quality considers the possibility of group or government support in time of stress.

Note 3*: 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 4: Z-spread = 3M NCD issuance rate - 3M treasury note spot rate.

Note 5: At the low indicative credit quality end, there are some discrepancies between our testing results and the market views, particularly concerning [BB-]* and [B+]*. We believe this is caused by very limited data samples and market noise.

Source: Wind, S&P Global (China) Ratings.

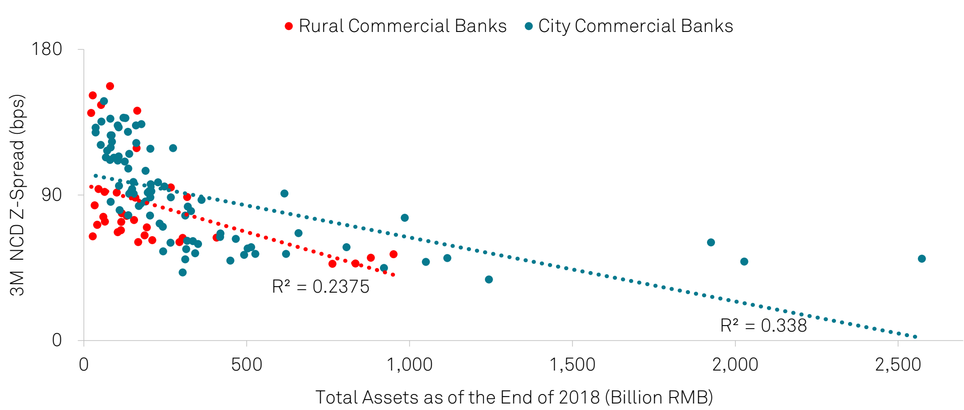
Our credit views on domestic banks are generally aligned with those of the market.

Business Position

Asset size is one of the most important factors for business position assessment, because it is highly correlated with business sustainability and geographic diversification. Small banks with high geographic concentration are typically more vulnerable to a local economic slowdown.

Chart 5

Scatterplot: Average Z-spread of 3-month NCDs of Regional Banks Vs. Their Total Assets



Note: This scatterplot includes 35 rural banks and 86 city banks which issued 3M NCDs from Jun,01,2019 to Nov,30,2019.

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

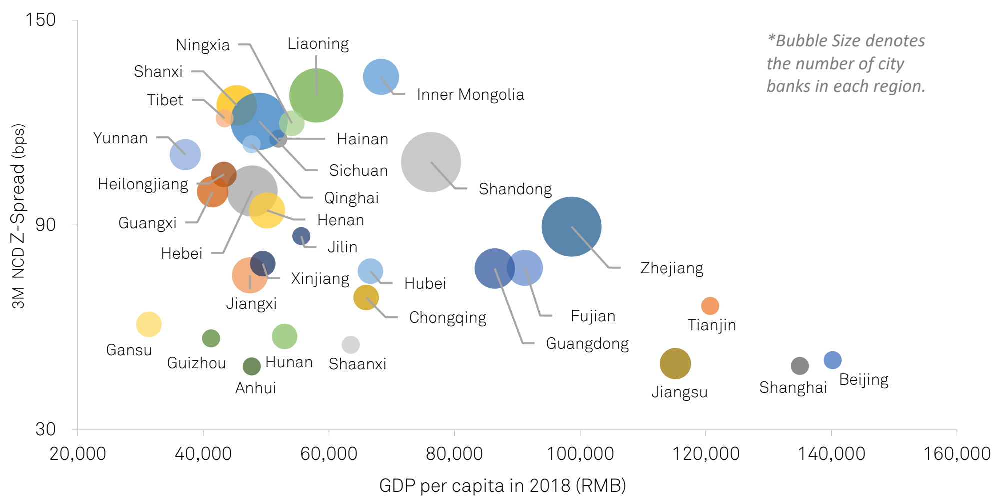
There is an observable relationship between bank asset sizes and their market spread.

We believe that the strength of regional economies has a fundamental influence on the creditworthiness of their local banks. The local credit environment is generally a strong influence on its local bank's business sustainability. The city bank market spread differentiation among various regions is significant because of the wide difference of regional economic strength.

We also notice that, where regional per capita GDP is similar, if a region has fewer and larger city banks, their market spreads tend to be lower because those city banks are typically larger and more diversified across the region. If a region has many city banks, the fragmentation of the market would keep average market spreads high because each city bank would be smaller and more vulnerable to the economic landscape of a specific city.

Chart 6

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



Note: The samples in the chart include 108 city banks that issued 3-month NCDs from June 01, 2019 to November 30, 2019.
Source: Wind, collected and adjusted by S&P Global (China) Ratings.

In our view, local economic strength and the fragmentation of the local banking market are both important factors in deciding the market spread of local banks.

In our view, with more regional banks coming under increased pressure during the current economic slowdown, the merger of city banks in the same province to form bigger and stronger provincial level banks can be an effective way to reduce the vulnerability and funding cost of regional banks.

Characteristics of Banks with Different Indicative Business Position Scores of S&P Global (China) Ratings

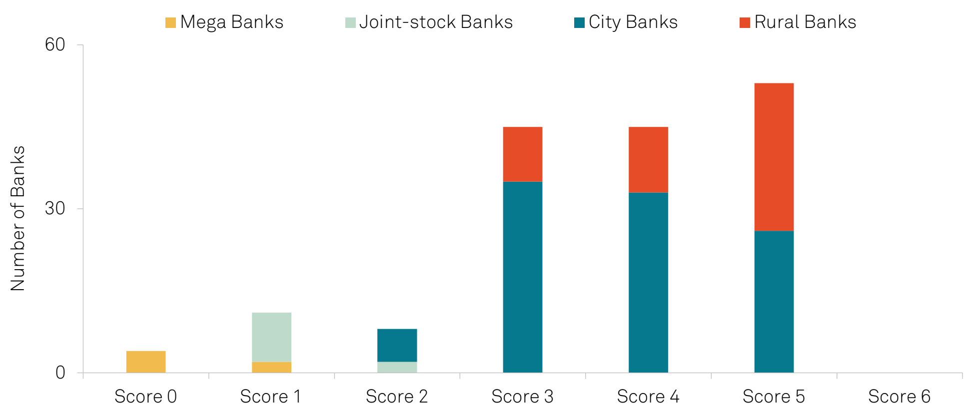
Score	Typical Profile
0	Very large state-owned mega banks with very good geographic diversification across China or beyond.
1	Large state-owned mega banks or large national joint-stock banks, with good geographic diversification across China.
2	Mid-sized joint-stock banks or large regional banks with good geographic diversification at least at provincial level, or leading large foreign bank subsidiaries.
3	Middle-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.

Source: S&P Global (China) Ratings.

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 7

Indicative Business Position Score Distribution of 166 Major Domestic Banks by S&P Global (China) Ratings



In our view, most regional banks have small market shares and high geographic concentration and tend to have less favorable business position scores.

Note 1: For testing purpose, we score the business position of Chinese banks in a scale of 0 to 6. 0 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.

Table 1

Market Share of Major Domestic Banks as of the End of 2018 Grouped by Indicative Stand-alone Credit Quality

Indicative Stand-alone Credit Quality	Median Asset Market Share (%)	Maximum Asset Market Share (%)	Minimum Asset Market Share (%)
[aa]*	10	13	4
[a]*	0.5	3	0.06
[bbb]*	0.1	1	0.01
[bb]*	0.06	0.5	0.01
[b]*	0.04	0.1	0.01

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

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

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

Source: S&P Global (China) Ratings.

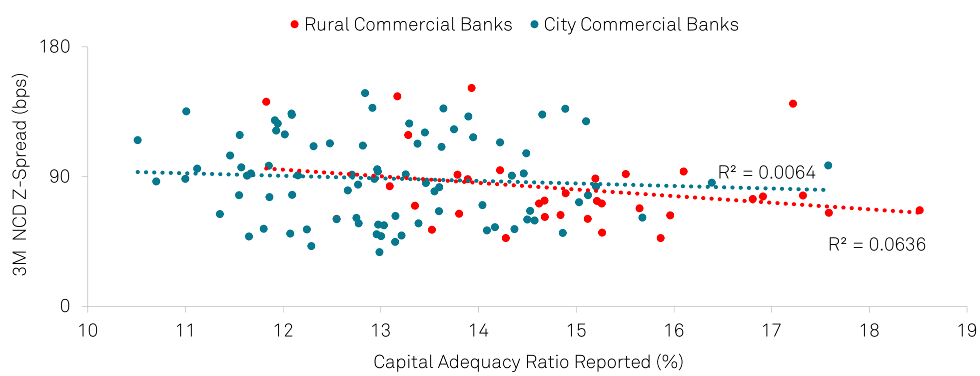
Capital & Earnings

When we assess banks' capital adequacy ratios, the first step is to assess whether there is a need to adjust the reported capital adequacy ratios. There are mainly three factors we consider, including banks' use of internal models for risk-weighted asset calculation (currently, six banks use internal rating based risk weights for RWA calculation, including Industrial and Commercial Bank of China, China Construction Bank, Agricultural Bank of China, Bank of China, Bank of Communications and China Merchants Bank) , risk of off-balance sheet wealth management products affecting banks' capital base, and the risk of under-provisioning.

Under-provisioning is a key issue we focus on when we try to determine our view of capital levels of a domestic bank. Under-provisioning typically means that a bank's capital base is weaker than its reported number.

Chart 8

Scatterplot: Average Z-spread of 3-month NCDs of Regional Banks Vs. Their Reported Capital Adequacy Ratios



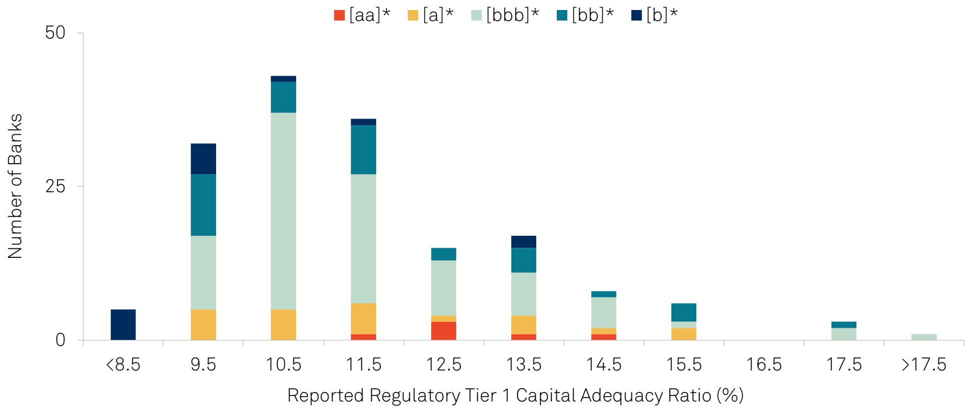
Market's interpretation of regional banks' regulatory capital level varies due to earning quality differences.

Note: This scatterplot includes 34 rural banks and 84 city banks which issued 3M NCDs from Jun,01,2019 to Nov,30,2019.

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

Chart 9

Distribution of Reported Tier 1 Capital Adequacy Ratios of Major Domestic Banks as of the End of 2018, Grouped by Indicative Stand-alone Credit Quality



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

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

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

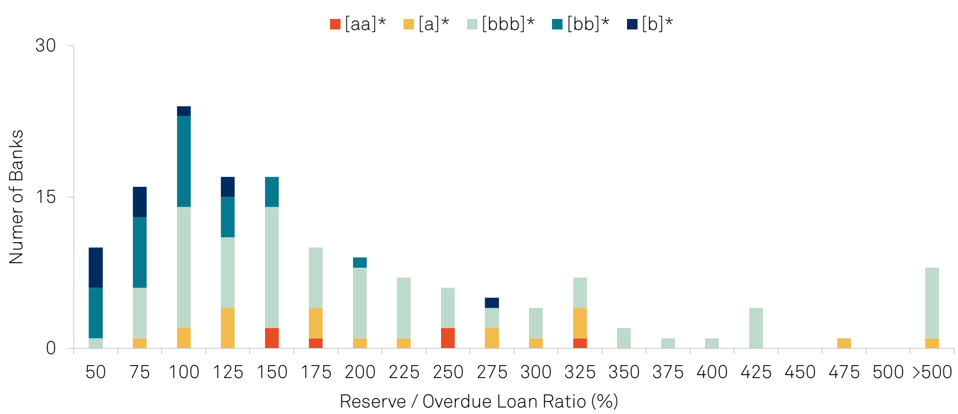
Sources: S&P Global Market Intelligence Database, public information, and S&P Global (China) Ratings.

The real capitalization of a few regional banks might be weaker than their reported numbers because of under-provisioning.

Since the reserve protects banks' capital from erosion by bad debts, reserve coverage of overdue loans is an important ratio for us to assess any risks of under-provisioning. Banks with high under-provisioning risk typically have lower indicative stand-alone credit quality in our testing.

Chart 10

Distribution of Reserve/Overdue Loan Ratio of Major Domestic Banks as of the End of 2018, Grouped by Indicative Stand-alone Credit Quality



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

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

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

Sources: S&P Global Market Intelligence Database, public information, and S&P Global (China) Ratings.

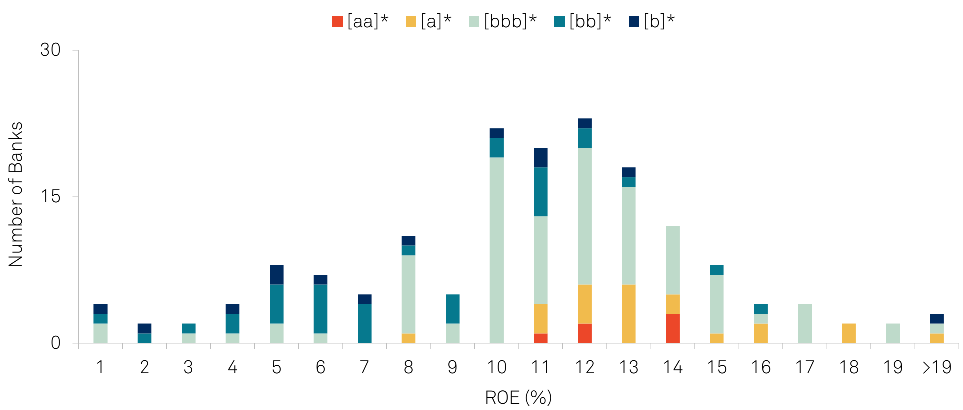
Banks with high under-provisioning risk typically have weak capitalization and low indicative stand-alone credit quality in our testing.

We pay attention to banks' profitability because of its impact on the sustainability of the capital base. Generally speaking, the growth of a bank' retained earnings should be able to sustain its risk-weighted asset growth to maintain a stable capital base. In addition, in our view, the quality of earnings is more important than the reported ROE, and sufficient provisioning in a forward-looking manner is generally key to achieving solid earnings quality.

We pay attention to profitability because of its impact on the sustainability of capital base.

Chart 11

Distribution of Return on Equity of Major Domestic Banks in 2018, Grouped by Indicative Stand-alone Credit Quality



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

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

Note 3: All the indicative stand-alone credit quality categories in this chart 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].

Sources: S&P Global Market Intelligence Database, public information, and S&P Global (China) Ratings.

Characteristics of Banks with Different Indicative Capital and Earnings Scores by S&P Global (China) Ratings

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.

Source: S&P Global (China) Ratings.

Chart 12

Indicative Capital Score Distribution of 166 Major Domestic Banks by S&P Global (China) Ratings

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

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.

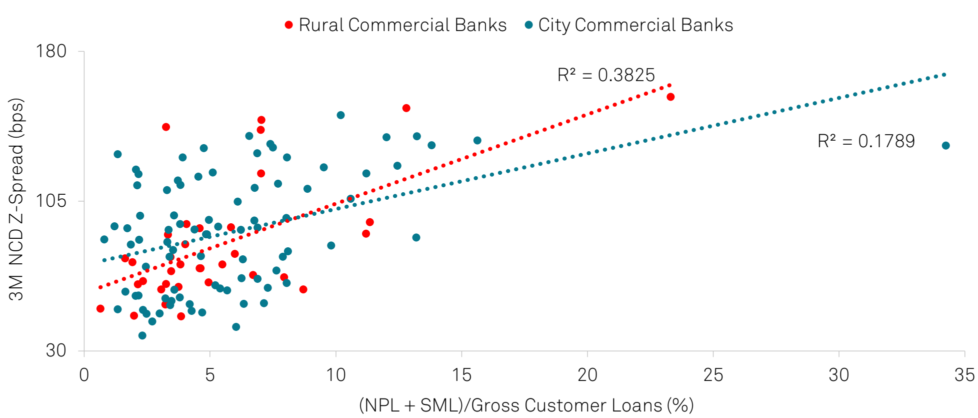
We believe that the actual capitalization of some regional banks is worse than their reported numbers because of under-provisioning.

Risk Position

Risk management capability and asset quality performance are very important to a banks' overall credit quality. When economic slowdowns, the differentiation of asset quality performance becomes more significant among regional banks. Based on available data, there is an observable relationship between banks' asset quality and their market spread.

Chart 13

Scatterplot: Average Z-spread of 3-month NCDs of Regional Banks Vs. Their (NPL+SML)/Gross Customer Loans



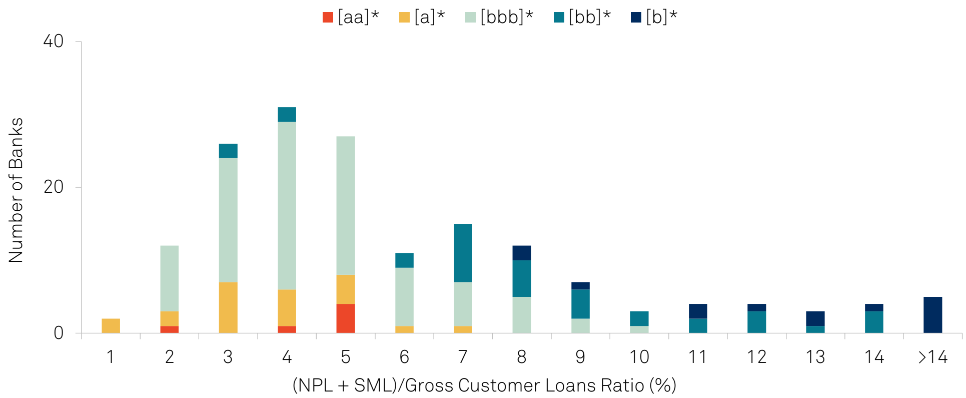
Note: This scatterplot includes 35 rural banks and 86 city banks which issued 3M NCDs from June 01,2019 to November 30,2019.

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

There is an observable relationship between banks' asset quality and their market spreads.

Chart 14

Distribution of (NPL+SML)/Gross Customer Loans of Major Domestic Banks as of the End of 2018, Grouped by Indicative Stand-alone Credit Quality



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

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

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

Sources: S&P Global Market Intelligence Database, public information, and S&P Global (China) Ratings.

Banks with poor asset quality metrics typically have low indicative stand-alone credit quality in our testing.

In our view, the loan credit risk classification practices of banks vary. To help understand the true asset quality of a regional bank, in addition to non-performing loans ("NPL") and special mention loans ("SML"), we also pay attention to the following factors: (1) the sizes of extension loans and restructured loans, (2) local GDP performance, (3) defaults of leading local corporations and major industries, (4) asset quality of other financial institutions operating in the same region, (5) local property market performance; (6) serious internal control breaches or corruption scandals, and (7) opinions of auditors or unexpected change of auditors, etc.

Characteristics of Banks with Different Indicative Risk Position Scores by S&P Global (China) Ratings

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.

Source: S&P Global (China) Ratings.

Chart 15

Indicative Risk Position Score Distribution of 166 Major Domestic Banks by S&P Global (China) Ratings

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

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.

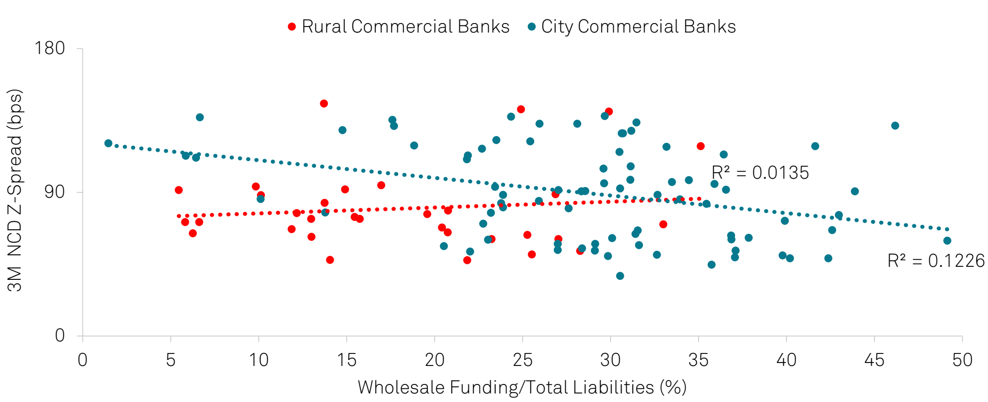
Some regional banks are faced with bad debt challenges.

Funding & Liquidity

With all else being equal, we assume that banks with a lower reliance on wholesale funding would generally have a more robust funding structure and less liquidity risk. However, based on observable data, under stable market circumstances with ample systemwide liquidity, the use of wholesale funding doesn't have a significant influence on the market spread of banks. In some cases, we find city banks with higher use of wholesale funding actually have a lower market spread because those banks tend to have larger asset sizes and stronger business franchises.

Chart 16

Scatterplot: Average Z-spread of 3-month NCDs of Regional Banks Vs. Their Wholesale Funding/Total Liabilities



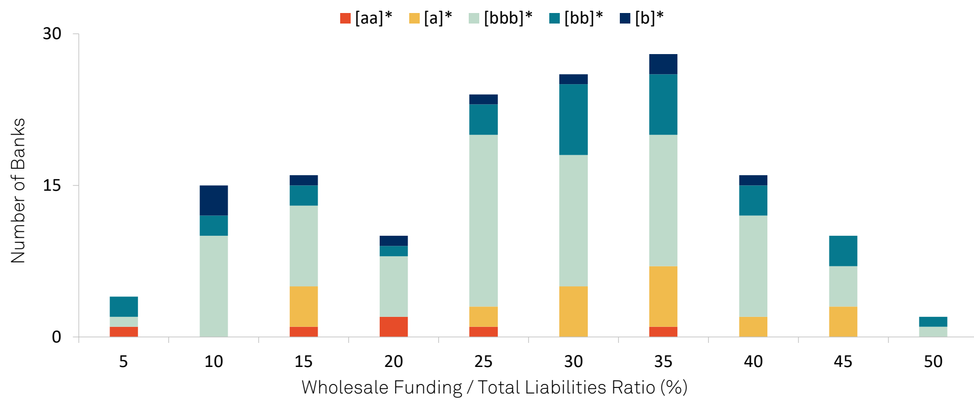
Note: This scatterplot includes 32 rural banks and 80 city banks which issued 3M NCDs from June,01,2019 to November,30,2019.

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

The use of wholesale funding doesn't have a significant influence on the market spread of banks when systemwide liquidity is ample.

Chart 17

Distribution of Wholesale Funding/Total Liabilities Ratio of Major Domestic Banks as of the End of 2018, Grouped by Indicative Stand-alone Credit Quality Categories



Reliance on wholesale funding is not a particularly influential factor for banks' indicative stand-alone credit quality in our testing, given the generally ample and stable systemwide liquidity in China.

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

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

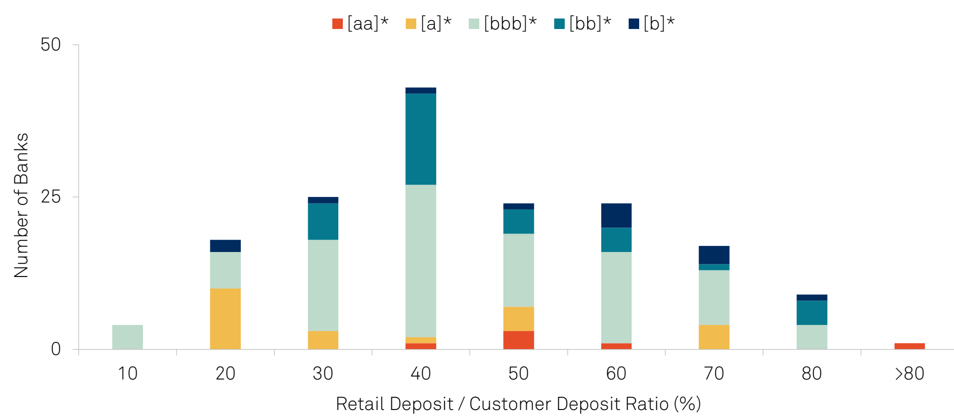
Note 3: All the indicative stand-alone credit quality categories in this chart can be adjusted with "+" and "-".

Sources: S&P Global Market Intelligence Database, public information, and S&P Global (China) Ratings.

We believe that retail deposits are typically the most stable and cheapest funding source of domestic banks. Banks with very good indicative stand-alone credit quality in our testing typically have a strong retail deposit base.

Chart 18

Distribution of Retail Deposits/Customer Deposit Ratio of Major Domestic Banks as of the End of 2018, Grouped by Indicative Stand-alone Credit Quality



Banks with very good indicative stand-alone credit quality in our testing typically have a strong retail deposit base.

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

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

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

Sources: S&P Global Market Intelligence Database, public information, and S&P Global (China) Ratings.

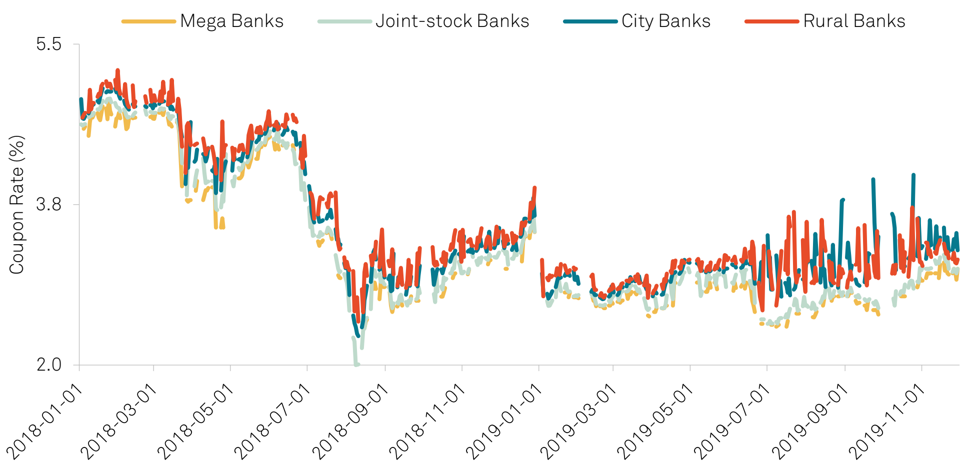
We believe that bank liquidity is very sensitive to market confidence and static funding structure ratios. For example, customer deposits/total liabilities ratio and wholesale/total liabilities ratio may not fully capture the market mood.

After the Baoshang Bank takeover in May 2019, the funding costs of many city and rural banks rose significantly in the following months, but the spread was compressed to some extent later in 2019 after the situation became more settled. Nevertheless, the market spreads of regional banks are still much higher compared to the period before May 2019. In our opinion, in most cases, the higher credit spread is caused by higher market awareness of the risk since the Baoshang Bank takeover, rather than actual credit deterioration of these banks since May 2019.

We notice that after the Baoshang Bank takeover in late May 2019, the average market spread of city banks became higher than that of rural banks. Before Baoshang Bank takeover, rural banks had the highest spread because of their small sizes and generally more vulnerable risk position. After the takeover, city banks' spreads became higher. In addition to the fact that Baoshang Bank is a city bank, we believe that this new phenomenon is also partially attributable to the fact that compared with rural banks, city banks rely more on wholesale funding and are therefore generally more vulnerable to liquidity risk.

Chart 19

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



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

The average NCD funding cost of city banks became higher than that of rural banks in recent months.

In our view, investors have become much more careful about the credit risk of city and rural banks and their major concern is over the asset quality and risk governance of banks. As a result, we believe that city and rural banks' liquidity risk is increasingly correlated with their asset quality profile. Therefore, when a regional bank has a significant asset quality problem, its liquidity risk may also rise materially as investors and counterparties become reluctant to lend to it because of the bad debt concern.

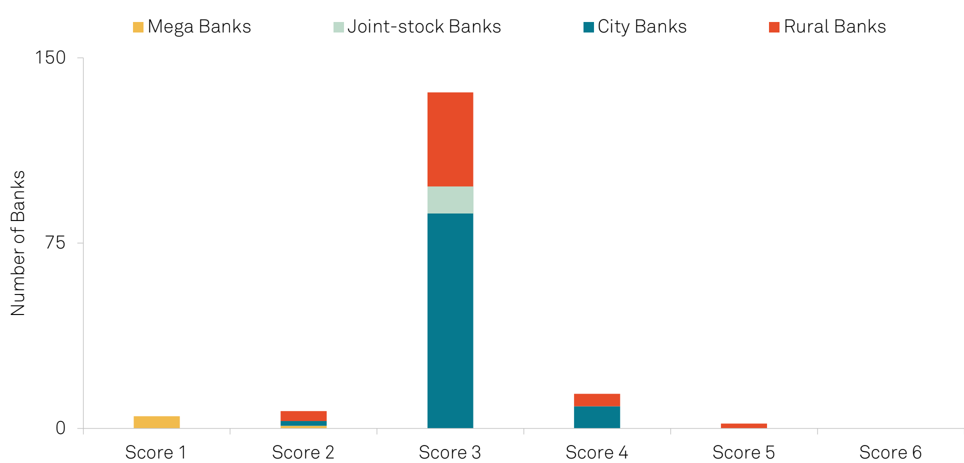
Characteristics of Banks with Different Indicative Funding & Liquidity Scores of S&P Global (China) Ratings

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 highly unpredictable liquidity position, high chance of requiring central bank intervention for liquidity support.

Source: S&P Global (China) Ratings.

Chart 20

Indicative Funding & Liquidity Position Score Distribution of 166 Major Domestic Banks by S&P Global (China) Ratings



Under the current stable market environment, mainstream banks don’t have significant differentiation in their funding and liquidity profiles, but a few regional banks are feeling mild liquidity stress.

Note 1: For testing purpose, we score the funding and liquidity position of Chinese banks in 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.

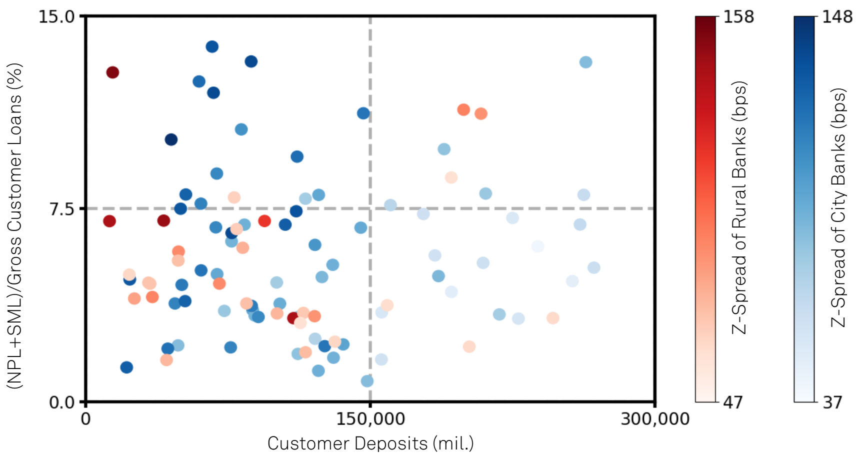
Source: S&P Global (China) Ratings.

Stand-alone Credit Quality

We believe that the indicative stand-alone credit quality of domestic banks is typically most sensitive to market share and asset quality under the current economic circumstances. There is an observable relationship between the market spread of banks with their asset size and asset quality.

Chart 21

Relationship among Customer Deposits, Asset Quality and Average Z-spreads of 3M NCDs Issued by Small and Mid-sized Regional Banks



There is an observable relationship between business size and asset quality metrics with the market spread of regional banks.

Note 1: Samples include city and rural banks with a deposit base less than 300 billion RMB which issued 3M NCD from June 1st 2019 to November 30th.

Notes 2: Z-Spread = Coupon Rate – 3M treasury note spot rate. Color shade denotes relative level of Z-spread.

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

Table 2

Medians of Key Financial Ratios of Domestic Banks Grouped by Indicative Stand-alone Credit Quality Categories

Indicative Stand-alone Credit Quality	Customer Deposits (bil)	Reported Tier 1 Capital Adequacy Ratio (%)	Return on Equity (%)	NPL Ratio (%)	(NPL+SML) Ratio (%)	Customer Deposits/Total Liabilities (%)	Retail Deposits/ Customer Deposits (%)
[aa]*	15,996	12.2	12.4	1.5	4.3	82	45
[a]*	709	10.7	12.3	1.3	3.2	68	21
[bbb]*	116	10.5	11.1	1.6	3.7	72	39
[bb]*	83	10.8	6.6	2.5	7.6	71	38
[b]*	65	8.8	6.9	3.6	12.4	80	55

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

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

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

Sources: S&P Global Market Intelligence Database, public information, and S&P Global (China) Ratings.

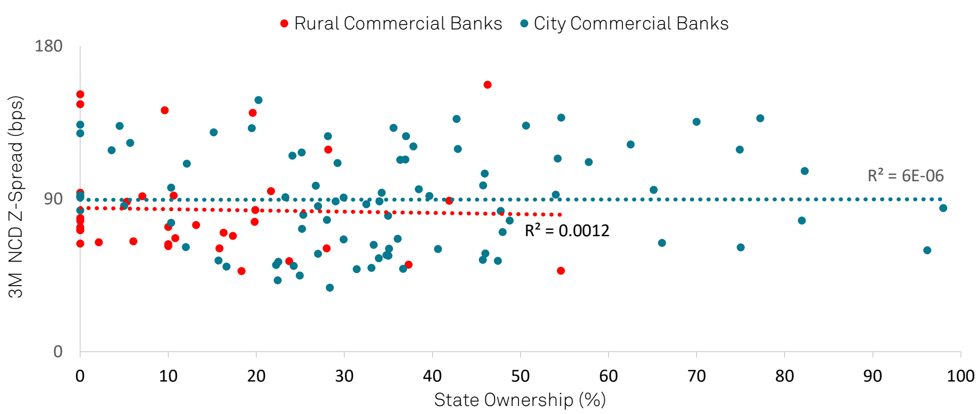
External Support

In our view, the commercial banking industry is critical to the economic and financial stability of the country, and the Chinese government has a clear supportive stance toward the domestic banking industry. Nonetheless, the extent and timeliness of government support toward a specific regional bank still require case-by-case analysis.

The extent and timeliness of possible government support for a specific regional bank require case-by-case analysis.

Chart 22

Scatterplot: Average Z-spread of 3-month NCDs of Regional Banks Vs. Their State Ownership



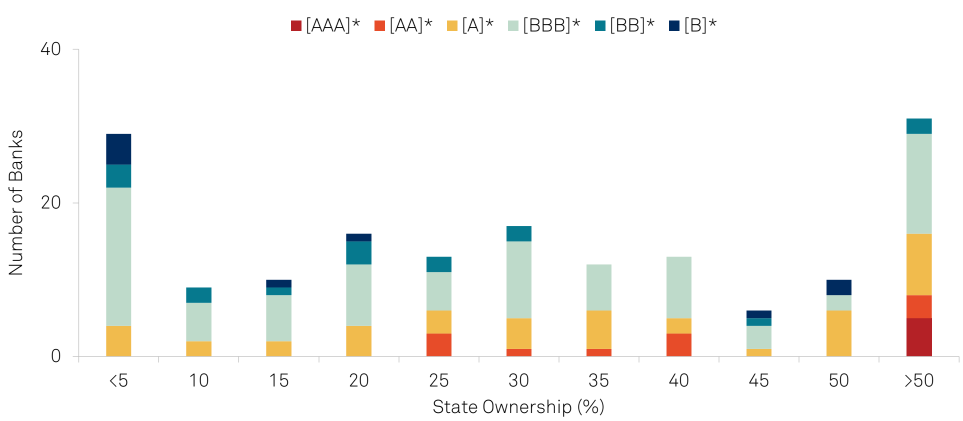
Note: This scatterplot includes 35 rural banks and 86 city banks which issued 3M NCDs from June 01,2019 to November 30,2019.

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

Chart 23

Distribution of Percentage of Shares Owned by Government and SOEs in Major Domestic Banks as of the End of 2018, Grouped by Indicative Issuer Credit Quality

When we assess possible government support for a bank in time of stress, we look into the ties between the bank and the government, as well as the role the bank plays in China's financial system.



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

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

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

Note 4: State ownership includes ownership by both the government and state-owned enterprises.

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

Government Support Level Assessment of Different Types of Domestic Banks in China

Bank Type	Preliminary Support Level Assessment
Mega banks	In our view, the mega banks are generally critical to the central government.
Joint-stock banks	In our view, most joint-stock banks are regarded as highly or moderately important to the central government given their large size and high profiles.
City and rural bank	The possibility of government support varies. Some regional banks are state-owned with strong ties with local governments, and their importance level to local governments can be high or moderate; while others are privately-owned with weak links with local governments, and their importance level to the local governments may be low or limited. Although regional banks typically have moderate, low or limited importance to the central government, there is still a possibility of support from the central government in times of stress.

Source: S&P Global (China) Ratings.

We believe that the following factors are important when the market gauges the possibility of government support for any individual bank: (1) the bank's size and the level of contagion 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 governments ; and (4) regulatory compliance records of the bank in its daily operations.

Although some domestic banks have holding companies, in our view, such holding companies won't have sufficient capability to help a stressed bank given the large liquidity needs of a bank. Therefore, we typically consider the possibility of government support instead of group support when assessing possible support for banks.

Conclusion

In our view, market share, asset quality and possible external support in time of stress are the three most important factors influencing the issuer credit quality of domestic banks. High market share means good diversification in terms of geography and business lines, which are important in controlling overall credit risk during an economic slowdown. Given the high leverage nature of the banking business, risk management is always critical for banks to protect their capital base. Since the banking sector is confidence sensitive, strong government support helps banks access funding, particularly in stress situations.

Table 3

Medians of Key Financial Ratios of Domestic Banks Grouped by Indicative Issuer Credit Quality Categories

Indicative Issuer Credit Quality	Customer Deposits (bil)	Reported Tier 1 Capital Adequacy Ratio (%)	Return on Equity (%)	NPL Ratio (%)	(NPL+ SML) Ratio (%)	Customer Deposits /Total Liabilities (%)	Retail Deposits/ Customer Deposits (%)	Ownership by Govt. and SOEs (%)
[AAA]*	17,109	12.3	13.0	1.5	4.3	83	45	70
[AA]*	2,572	10.8	11.9	1.5	3.0	63	20	37
[A]*	228	10.4	11.8	1.5	3.5	69	31	33
[BBB]*	82	10.8	9.9	1.7	4.6	74	42	25
[BB]*	67	10.9	6.8	2.5	9.2	73	49	19
[B]*	41	8.5	7.0	3.0	11.9	82	55	10

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This report does not constitute a rating action.

Appendix: Related Methodologies & Research

Methodology Applied:

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

Related Research & Commentary:

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

This document is prepared in both English and Chinese. The English translation is for reference only, and the Chinese version will prevail in the event of any inconsistency between the English version and the Chinese version.