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S&P Global
China Ratings

How S&P Global (China) Ratings Assesses Credit Quality of Banks

September 15, 2023

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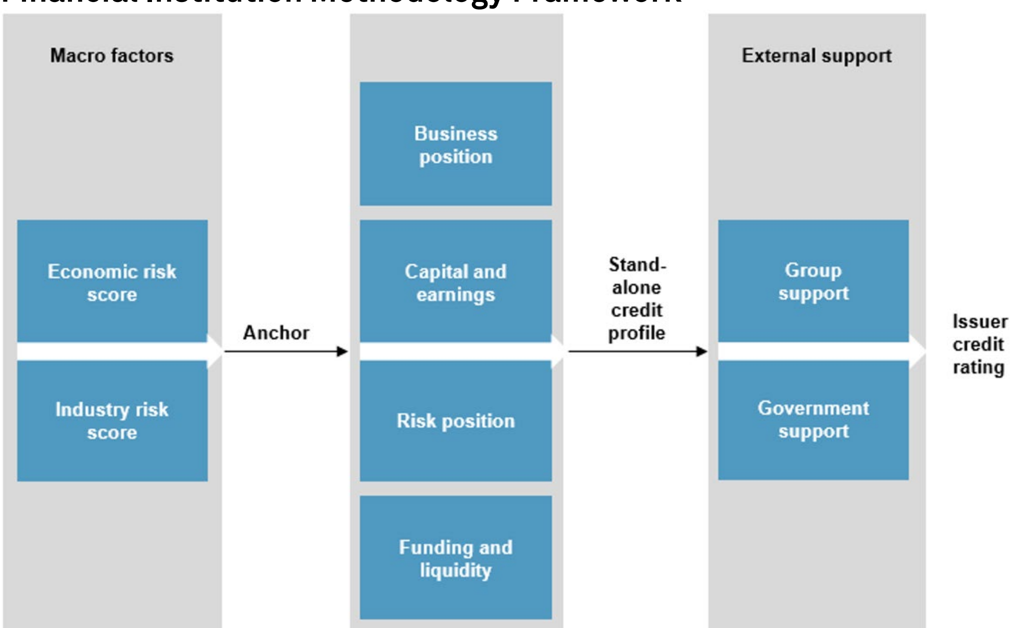
Overview

According to our financial institution ("FI") rating criteria, we typically determine the stand-alone credit profile ("SACP") based on our assessment of an institution's anchor, a starting point, and then incorporating its own characteristics compared with the anchor. The entity-specific factors that we may use to adjust from the anchor include business position, capital & earnings, risk position, and funding & liquidity. We then determine the issuer credit ratings ("ICR") based on the SACP and our assessment of potential group or government influence in time of stress.

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.

Source: S&P Global (China) Ratings

The Methodologies we use are based on the applicable S&P Global Ratings Methodologies, but are modified where appropriate for use in the domestic application in China. We believe the modifications we have made will provide more granular credit differentiation within the local scale used by S&P Global (China) Ratings.

Anchors can be notched up and down based on entity-specific factors to arrive at SACP. For business position, capital and earnings, and risk position, we use the following table to determine the number of notches.

Table 1

Scoring, No. of Notches for Business Position, Capital & Earnings and Risk Position

Business Position		Capital & Earnings		Risk Position	
Score	Notching	Score	Notching	Score	Notching
1	+3*/+2	1	+2	1	+2
2	+1	2	+1	2	+1
3	0	3	0	3	0
4	-1	4	-1	4	-1
5	-2	5	-2	5	-2
6	-3	6	-3	6	-3

Note*: When business position is scored as "1", we generally apply "+2", and will consider " +3" only when the issuer shows a big advantage over the next peer groups.

Source: S&P Global (China) Ratings.

For funding and liquidity, we use the following table to determine the number of notches.

Table 2

Funding & Liquidity (# Notches)

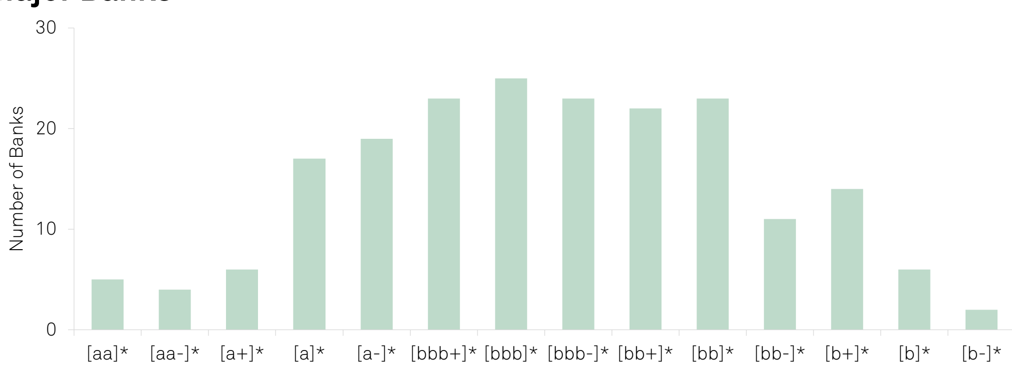
Funding	Liquidity				
	1	2	3	4	5
Above average	+2/+1	+1/0	-1	-2	-3
Average	0	0	-1	-2	-3
Below average	-1	-1	-1	-2	-3

Source: S&P Global (China) Ratings.

Where we believe external factors may influence the ICR or issue-level rating, we would also refer to our Rating Modifiers and Relative Ranking Methodology.

Chart 2

Distribution of Indicative Stand-alone Credit Quality of 200 Tested Major Banks



Note 1: Indicative stand-alone credit quality does not include any considerations for government or group support in a crisis scenario.

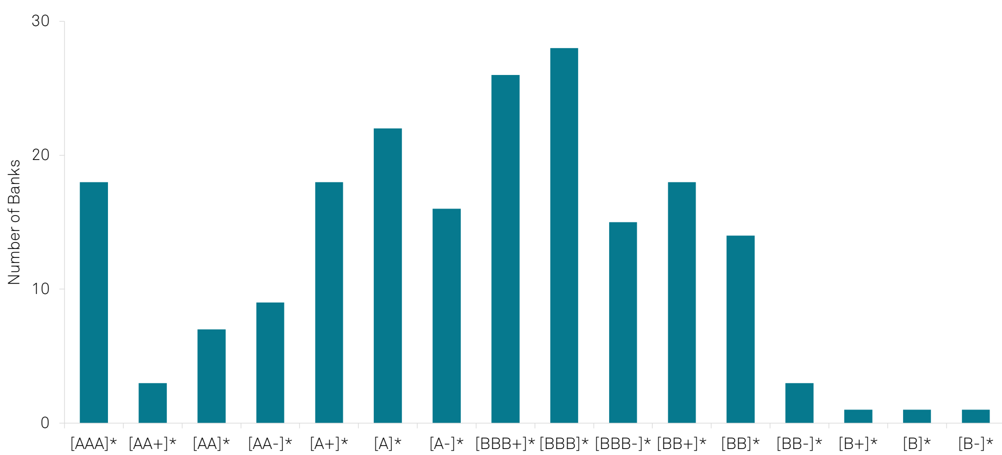
Note 2: The indicative credit quality distributions expressed in this report are only S&P China's indicative views of credit quality derived from a desktop analysis based on public information without interactive review with any particular institution or the full credit rating process such as a rating committee. 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.

We arrive at a bank's issuer credit rating ("ICR") through combining our evaluation of its stand-alone credit profile ("SACP") and external influence. If we believe the bank may be affected by its group or the government, such impact is reflected in our framework for support, and may lead to differences between SACP and ICR. If the impact is positive, suggesting support for the bank from its group or government, its overall credit quality may be higher. If the external influence has a negative impact, suggesting negative intervention from the group or government in the bank's business, its overall credit quality may be weaker as a result. In most cases, external influence on banks is positive and represents government or group support.

Chart 3

Distribution of Indicative Issuer Credit Quality of 200 Major Banks



Note 1: Indicative issuer credit quality considers potential government or group support in a crisis scenario.

Note 2: The indicative credit quality distributions expressed in this report are only 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. 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.

The aim of this report is to provide an overview, and not to cover each and every factor of our analysis. Where appropriate, we may use quantitative or qualitative indicators in our analysis that are not mentioned in our research reports in order to fully reflect the credit quality of specific issuers, debt or security types.

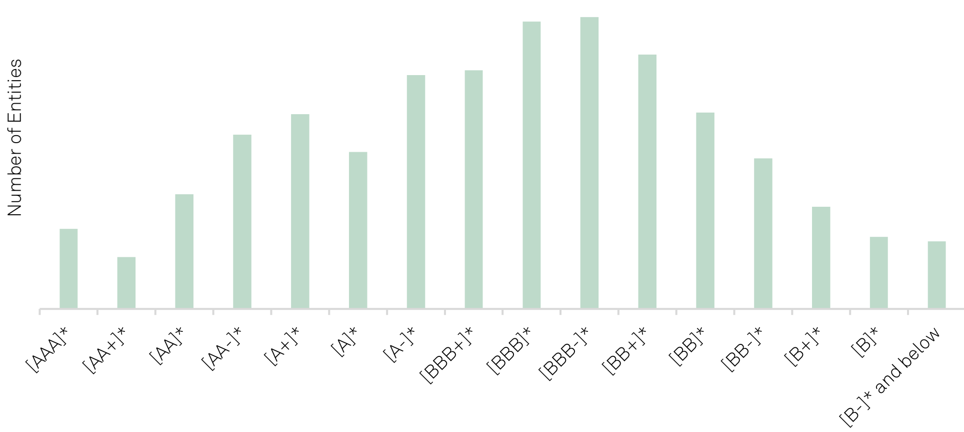
Anchor

According to our FI rating criteria, the anchor is our starting point for determining SACP. The anchor typically reflects the economic risk and industry risk in China. If an institution has meaningful exposure outside China, we typically reflect the economic risk and industry risk of other countries in the assessment of the four specific SACP factors, particularly business position and risk position.

We set our bank anchor at “bbb+”. We believe overall industry risk for the banking sector should reflect the broader credit profile of the domestic market. We believe the [bbb] category anchor for FI is a reasonable reflection of the broader credit risks in China, particularly for the corporate issuers in the rating universe, which has their median indicative issuer credit quality at [BBB_{spc}] category. Considering the special license for collecting public deposits and the strict regulations imposed on the industry, we believe “bbb+” is a reasonable anchor for banks. Given the relatively stable economic and financial environment in China, we expect the bank anchor to remain stable in the foreseeable future.

Chart 4

Distribution of Indicative Issuer Credit Quality of 1,700 Corporates Tested



Note: The indicative credit quality distributions expressed in this report are only 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. 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: “Understanding S&P Global (China) Ratings’ Credit Differentiation and Our Rating Scale”, January 12, 2021.

Business Position

Business position is the first factor we assess to determine an entity’s SACP. Our assessment of business position measures the strength of an FI's business operations. We typically consider three subfactors for business position: (1) business stability; (2) diversification; and (3) governance, management, and strategy. We use a mix of quantitative metrics and qualitative judgments to determine the strength of a bank's business franchise. We combine our views of these factors to arrive at an overall assessment of business position, which is assessed on a six-point scale, ”1” indicating a very strong business position and ”6” a weak position. We typically first consider business stability, arriving at a preliminary assessment of the business position. We then evaluate additional factors such as diversification, governance, management and strategy and judge whether an adjustment to the preliminary assessment is necessary or not.

Table 3

Subfactors for Business Position Assessment of Banks

Subfactors	Explanation	Examples of indicators
Business stability	The stability or fragility of a bank's franchise. We use this subfactor as the primary driver for our business position assessment	Market share, revenue stability, and customer base
Diversification	The concentration or diversification of business activities	Contributions of different business lines and geographies
Governance, management, and strategy	The quality of corporate governance, management, and strategy	Governance and transparency, ownership structure, quality of management, strategic positioning, operational effectiveness, financial management, and policies

Source: S&P Global (China) Ratings.

Table 4

Business Position Assessment

Score	Notching	What it typically means
1/Very strong	+2/+3*	A bank's business operations make it materially better placed to withstand adverse operating conditions than the bank anchor indicates.
2/Strong	+1	A bank's business operations make it better placed to withstand adverse operating conditions than the bank anchor indicates.
3/Adequate	0	A bank's business operations are representative of the bank anchor.
4/Moderate	-1	A bank's business operations make it more vulnerable to adverse operating conditions than the bank anchor indicates.
5/Constrained	-2	A bank's business operations make it significantly more vulnerable to adverse operating conditions than the bank anchor indicates.
6/Weak	-3	The bank anchor is not representative of the bank's high vulnerability to adverse operating conditions.

Note 1*: When the business position score is "1", the adjustment is usually "+2". An adjustment of "+3" can only be considered when the business position of the evaluated entity has significant advantages compared with peers.

Note 2: The business position notching is applied on the bank anchor of " bbb+" .

Source: S&P Global (China) Ratings.

Factors that may have a positive impact on business position include:

- Higher market share than peers;
- Higher entrance barriers;
- Lower revenue volatility than peers;
- Higher recurring income as a percentage of revenue than peers;
- More diversified business lines and geographic coverage;
- Matching between strategies and actual execution capability consistent with bank's capabilities;
- Stronger track record of achieving financial/operational goals than peers.

Factors that may have a negative impact on business position include:

- Lower market share than peers;
- A need to compete through pricing to attract and retain customers;
- Greater revenue volatility than peers;
- regulatory changes or the emergence of alternative services may seriously affect their operations;
- Higher concentration of business lines and geographic coverage;
- Lack of effective strategic planning;
- More aggressive risk tolerance at the management level.

We use deposit market share as the starting point for preliminary business position notching, and adjust with other factors we consider in business stability, diversification and governance, management and strategy. Typical positive adjustment factors include having a customer base stickier than peers with similar business size, and geographic or product diversification more diversified than peers with similar business size. Typical negative adjustment factors include having a customer base acquired by unsustainable pricing practices, geographic or business lines concentration more concentrated than peers with similar business size, revenue volatility significantly higher than peers with similar business size, flawed corporate governance practices, unsustainable business strategy, or business strategy execution less effective compared to peers. In addition, our business position assessment is forward-looking in nature.

Table 5

Preliminary Notching Guidance for Business Position Assessment

Notching	Score	Typical features	Deposit market share thresholds
+3	1	Very large state-owned mega banks with very good geographic diversification across China or beyond. Typically global systemically important banks.	>=8%
+2	1	Large state-owned mega banks or large national joint-stock banks, with good geographic diversification across China.	2%-8%
+1	2	Mid-sized joint-stock banks or very large regional banks with good geographic diversification, or leading foreign bank subsidiaries with business diversification much better than similar-sized banks. If its market share is less than peers, it may have significant advantage in terms of business stability, diversity, or strategy compared to similar-sized banks.	0.5%-2%
0	3	Small joint-stock banks, large or mid-sized regional banks based in first or second tier cities, or mid-sized foreign bank subsidiaries with business diversification much better than similar-sized banks. If its market share is less than peers, it may have significant advantage in terms of business stability, diversity, or strategy compared to similar-sized banks.	0.1%-0.5%
-1	4	Small or mid-sized regional banks in second or third tier cities with high geographic concentration, or mid and small-sized foreign bank subsidiaries. If its market share is less than peers, it may have significant advantage in terms of business stability, diversity, or strategy compared to similar-sized banks.	0.05%-0.1%

-2	5	Very small regional banks in third or fourth tier cities with very high geographic concentration, or small foreign bank subsidiaries.	<=0.05%
-3	6	The bank's business operations are materially riskier than its peers. This category applies only in exceptional circumstances for banks in crisis.	

Note: The threshold used in our testing is only the starting point of scoring. We also consider other qualitative and quantitative factors, so our final notching conclusion may differ from the conclusion drawn from the preliminary threshold analysis.

Source: S&P Global (China) Ratings

3.1 Business Stability

Business stability refers to the predictability of continuing business volumes in the face of economic and market fluctuations, including changes in customer preferences. Size and sustainability of market share, revenue stability, and the company's customer base are key factors that we look at and compare with peers.

We believe that in China's commercial banking industry, the size of a bank's market share has strong correlation with market share stability. However, in extreme cases, larger market shares may not automatically be more stable in terms of size or profitability. Trading income, including interest income from trading activities and other market-sensitive income are examples of less stable income sources. Another sign of less stable market share is that a bank relies more heavily on pricing to attract and retain customers than other peers in the industry. Favorable characteristics for business stability include the customer base being demonstrably "sticky", and the bank being less reliant than the industry on pricing to retain customers.

3.2 Diversification

Diversification of business activity is measured by the contributions of business lines and geographies to a bank's revenues and profits, compared with peers. An entity with a broader mix of business activity has generally lower risk, and an entity with a narrower mix has generally higher risk. Although it is possible for a bank with concentrated business to have a stable and sustainable business model, we consider whether concentrated business volumes or revenues may lead to less stable and predictable revenues.

Successful and continuing diversification in established businesses supports a stronger business position. Successful diversification typically means that a bank's earnings have been more stable than the industry average, particularly during periods of adversity, and management has not materially increased its exposures or risk appetite.

Poor-quality diversification weakens the overall business position. For example, a bank may weaken its overall business position if it enters an emerging market where it lacks critical mass, with the aim of establishing itself as a real competitor to the incumbent market leaders. We treat a bank as more concentrated than the industry average when it has a more limited product range or geographic breadth, particularly for a bank with significant regional, product, or customer concentrations. Even if concentration is in a region, product, or customer segment that generally performs well, it may still be considered a weakness.

We consider regional presence in the context of the size of the local economy. For example, a regional presence in a large and diversified region is less likely to give rise to concentration concerns than a presence in a smaller, less diversified region.

In China's commercial banking sector, diversification and market share in most cases are highly correlated. If we believe our business stability assessment has already reasonably reflected the degree of diversification of a bank, we may not make additional adjustments in our diversification assessment.

3.3 Governance, Management & Strategy

This subfactor considers ownership and governance, management's ability to execute operational plans in a consistent manner, and the consistency of strategy with organizational capabilities and marketplace conditions. Management's strategic competence, risk management, and operational effectiveness shape a bank's competitiveness in the marketplace and its financial condition. Examples of favorable characteristics for governance, management, and strategy include:

- Governance and conduct standards compare positively with the industry average;
- Independent directors have strong influence, and a robust system of checks and balances exists in decision-making;
- Management is more prudent and conservative than average in the industry. Management has proven execution capabilities and is a stable team. There is a track record of avoiding the strategic mistakes of peers.
- Performance has been, and is likely to be, less volatile than average in the industry. Both compensation and financial targets are focused on long-term value;
- Compensation and financial goals focus on the company's long-term future;
- Effective management of the cost structure that shows flexibility to manage costs and still addresses risks and investment needs; and
- Effective management of emerging and existing risks that could disrupt the FI's business and earnings, and emerging opportunities to strengthen the FI.

A weak management with an ineffective operating strategy or inability to execute its business plan effectively increases risk. Examples of unfavorable characteristics for governance, management, strategy include:

- Governance and conduct standards compare negatively with the industry average, for example in terms of planning for contingent risks such as cyber risk, or because of large-scale governance failures (for instance arising from the interaction of poor incentive structures and limits on managerial oversight);
- Management's strategies (including acquisition strategies) and financial targets--such as return on equity (ROE) and growth in earnings per share--are more aggressive than average for the industry;
- The entity shows limited checks and balances in decision-making processes, such as oversight over senior management;
- The organization operates with more complex corporate, legal, or tax structures, including relationships with controlling entities;
- Compensation schemes encourage short-term profit-taking;
- There is unplanned management turnover in critical senior positions; and
- There is ineffective management of the cost structure due to inflexible costs or cost management approaches that may generate future risks.

Sound governance, strategy and management tends to be reflected in other factors under our business position assessment, such as market share, revenue stability and diversification. We typically make adjustments for governance, strategy and management if we believe this subfactor is not fully reflected in the preliminary business position assessment. This subfactor may have more weight if we see a significant change in governance, strategy or management which hasn't been reflected in a bank's quantitative metrics.

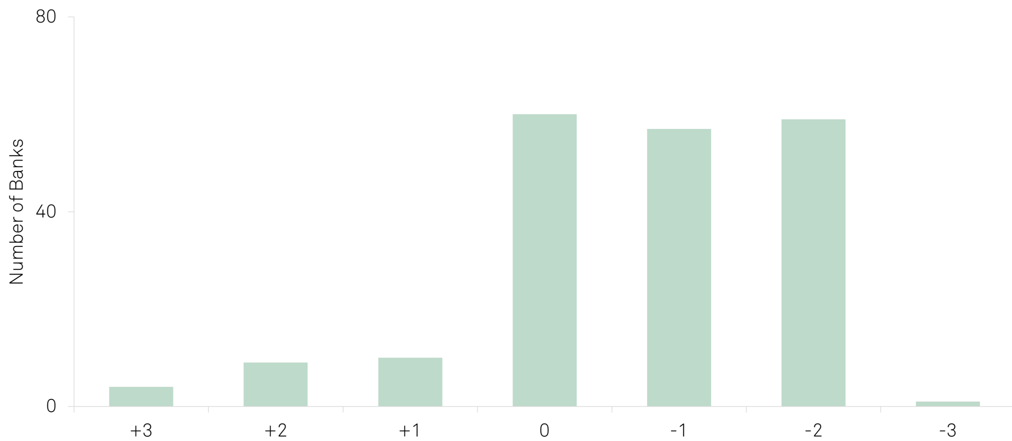
3.4 Business Position Testing Results

We have tested the credit quality of 200 commercial banks in China. We use deposit market share as the key metric for the preliminary quantitative assessment of business position.

Domestic commercial banks' business positions show significant differentiation. The six mega banks have very strong business stability and diversification. We usually notch upwards by 2 or 3 notches for the mega banks. Many joint-stock banks perform better than the banking industry average in terms of business scale and regional diversification, and we usually apply between 0 and +2 notches for business position (+2 in the majority of cases). There are a large number of regional banks (including city banks and rural banks), private banks and foreign bank subsidiaries, which are often small in scale. For this group of banks, business position notching usually ranges between 0 and -2. However, some leading banks among this group may be notched upwards by 1 notch.

Chart 5

Distribution of Indicative Business Position Notching of 200 Major Banks



Note 1: Notching is based on the bank anchor of "bbb+".

Note 2: The indicative credit quality distributions expressed in this report are only 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. 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.

Capital & Earnings

Capital and earnings is the second factor in our assessment of banks' SACP. It is about an entity's ability to absorb losses under stress. Capital and earnings assessment is measured on a six-point scale corresponding to six different possible notching results. A score of 1 (leading to a 2-notch upward adjustment from the anchor) represents strong capitalization. A score of 3 (no notching adjustment applied) represents adequate capitalization, while a score of 6 (a 3-notch downward adjustment from the anchor) represents very constrained capitalization. Our capital and earnings assessment is forward-looking.

If our capital and earnings analysis results in a final score of 3 (no notching adjustment applied), the bank would generally have enough capital to meet business expansion-related demand while also fully meeting minimum regulatory capital requirements. Such a score also indicates an overall balance between maintaining sufficient capitalization and reasonable profitability.

We usually take a bank's capital adequacy as a starting point of our analysis which forms its initial capital and earnings score. We then consider additional factors like capital quality, earning capacity and earning quality, which help determine whether we need to adjust our initial score.

When assessing capital adequacy, we may adjust the reported capital ratio to better reflect its actual capital situation and improve comparability with peers. Where we believe there is under-provisioning or significant risks such as huge off-balance sheet exposures hidden from the balance sheet, we may make adjustments. We also consider whether a bank can strike a balance between developing its business and accumulating capital. Business growth may diminish capital while retaining earnings may lead to capital accumulation.

When analyzing the quality of capital and earnings, we look at the proportion of CET 1 capital in total capital as required by regulatory requirements. In general, the higher the proportion, the higher the capital quality. Another factor we consider for earnings quality is whether core sources of revenue are diversified and stable. Where revenue is highly dependent on non-recurring income or one-off revenue, or if a bank has insufficient provisions and reported inflated earnings, we may apply a negative notching adjustment.

The following table summarizes our approach for assessing capital and earnings. Any risks that are not fully reflected in capital and earnings assessment are covered in our assessment of the entity's "risk position," the third factor in our assessment of SACP.

Table 6

Summary of Our Assessment Steps of Commercial Banks' Capital and Earnings

Step	Description	Key Takeaways
Step 1	Assess the compliance with regulatory capital adequacy requirements	Regulatory requirements include the NFRA's capital adequacy requirements for commercial banks and the additional capital buffer requirements for systemically important banks. If we expect a bank to fail to meet minimum regulatory capital requirements in the future, its capital and earnings notching would likely be negative. We apply either a neutral (i.e. no notching adjustment) or favorable (upward adjustment of 1-2 notches) capital and earnings score only if we expect a bank to fully meet the minimum capital requirements.
Step 2	Adjust and forecast Tier 1 capital adequacy ratio	Adjustments made to Tier 1 capital adequacy ratio are made based on: (1) whether the bank uses an internal ratings-based approach; (2) whether there is under-provisioning; (3) potential capital consumption from OBS WMPs. The main driving factors for our Tier 1 capital adequacy ratio forecast include (1) capital consumption for future business development; (2) future net profits; (3) future dividends; (4) future capital injections and/or plans to issue hybrid instruments, etc. Our forecast of the Tier 1 capital adequacy ratio is the core metric based on which we arrive at our initial capital and earnings score.
Step 3	Assess the bank's capital quality, earnings capacity and earnings quality	We make adjustments to the initial capital and earnings scores (step 2) based on our assessment of the bank's capital quality, earnings capacity and earnings quality.
3.1	Assess capital quality and capital structure	We compare the bank's capital structure with the industry average. Main considerations include CET 1 capital/total capital; Tier 1 capital/total capital, etc. as we assess whether capital quality is below the industry average. If capital quality is far below average, we may apply a negative adjustment. If a significant proportion of capital is made up of additional Tier 1 capital such as perpetual bonds, leading to pressure on the CET 1 capital adequacy ratio despite the Tier 1 capital adequacy ratio still being sufficient, we may apply a negative adjustment. If Tier 2 capital buffer is much higher than the industry average and provides above-industry-average protection, we may consider a positive adjustment.

3.2	Assess the bank's earnings capacity	We assess the bank's main earnings metrics, including but not limited to operating revenue growth, NIM, credit cost, cost-to-income ratio, ROA, ROE, and other indicators. If we believe the bank's earnings will not support its business development-related capital needs, we may apply a negative adjustment.
3.3	Assess the bank's earnings quality	We assess the diversity and stability of the bank's core revenue sources to determine the quality of earnings. If revenue is highly dependent on non-recurring or one-off income, or provisioning is insufficient and reported earnings numbers are inflated, we may apply a negative adjustment.
3.4 (if applicable)	The bank's capital adequacy over the next 12-24 months under a stressed scenario	Typically, our step 2 assessment is to assess bank's capital adequacy in baseline scenario. To account for significant and unexpected fluctuations in the financial market or the real economy that may affect our view capital adequacy in stress scenario, we may conduct additional stress tests to better determine the resilience and robustness of a bank's capital adequacy under a stress scenario.
3.5 (if applicable)	Assess other additional factors, such as ongoing group/government support	Ongoing capital support from the parent/government can help stabilize a bank's capital base, which may lead to an improved final capital and earnings score compared to our initial score.
3.6	Combine the assessment results from the previous steps to arrive at the final capital and earnings score	Make adjustments to the initial capital and earnings score derived in step 2 with the results of each assessment in step 3.

Source: S&P Global (China) Ratings.

Table 7

Preliminary Notching Guidance for Capital & Earnings Assessment

Notching	Score	Typical features	Tier-one capital
+2	1	We expect the Tier 1 capital adequacy ratio adjusted by S&P Global (China) Ratings to be much higher than the industry average for the following 12-24 months.	>=20%
+1	2	We expect the Tier 1 capital adequacy ratio adjusted by S&P Global (China) Ratings to be somewhat higher than the industry average for the following 12-24 months.	14%-20%
0	3	We expect the Tier 1 capital adequacy ratio adjusted by S&P Global (China) Ratings to be consistent with the industry average for the following 12-24 months; and able to meet the minimum regulatory capital requirements under stress scenario.	9%-14%
-1	4	We expect the Tier 1 capital adequacy ratio adjusted by S&P Global (China) Ratings to be somewhat lower than the industry average for the following 12-24 months; and the bank may have difficulty meeting minimum regulatory capital requirements under stress scenario while being able to meet those requirements in normal time.	7%-9%

-2	5	We expect the Tier 1 capital adequacy ratio adjusted by S&P Global (China) Ratings to be lower than the industry average for the following 12-24 months; and the bank may have difficulty meeting minimum regulatory capital requirements even in normal time.	5%-7%
-3	6	We expect the Tier 1 capital adequacy ratio adjusted by S&P Global (China) Ratings to be significantly lower than the industry average for the following 12-24 months; and the bank may have a significant risk of breaching the minimum regulatory capital requirements or having already breached them, and we expect that without timely capital injection, the bank's operations may become unsustainable.	<=5%

Note 1: We may adjust the Tier 1 capital adequacy ratio base on our views on specific banks' asset quality.

Note 2: This table is supposed to be used in a forward-looking manner based on our view on the institution's future capitalization in the next 12 to 24 months or longer period if we see fit.

Note 3: We may make downward notching adjustment if a bank's capital quality is significantly weaker than industry average. If a bank has very strong Tier 2 capital which is not reflected in our assessment to its Tier 1 capitalization, we may make upward notching adjustment.

Note 4: The threshold used in our testing is only the starting point of scoring. We also consider other qualitative and quantitative factors, so our final notching conclusion may differ from the conclusion drawn from the initial threshold analysis.

Source: S&P Global (China) Ratings.

4.1 Assessing Capital

For capital adequacy, we first look at a bank's compliance with regulatory capital adequacy ratio requirements. If we believe the entity may not meet those regulatory requirements, we may apply a negative adjustment to its capital and earnings score. Only when we think a bank can fully meet capital adequacy requirements do we give a neutral (i.e. no notching adjustment) or favorable (1- or 2-notch upward adjustment) score to its capital and earnings score.

Table 8

Commercial Banks' Minimum Capital Regulatory Requirements (%)

Bucket	CET 1 Capital Adequacy Requirements	Tier 1 Capital Adequacy Requirements	Capital Adequacy Requirements
5 (none)	9	10	12
4 Upper (ICBC, BOC)	9	10	12
4 Lower (ABC, CCB)	8.5	9.5	11.5
3 (BCM, CMB, CIB)	8.25	9.25	11.25
2 (CNCB, PSBC, SPDB)	8	9	11
1 (CMBC, CEB, PAB, HXB, Bank of Ningbo, CGB, JS BANK, Bank of Shanghai and BOB)	7.75	8.75	10.75
Non-D-SIB Banks	7.5	8.5	10.5

Note 1: According to the scoring system for D-SIBs, banks are divided into five buckets: 9 in Bucket 1 (CMBC, PAB, CEB, HXB, CGB, NBCB, Bank of Shanghai, JSBANK and BOB); 3 in Bucket 2 (SPDB, CNCB, PSBC); 3 in Bucket 3 (BCM, CMB, CIB); Bucket 4 includes ICBC, BOC, CCB and ABC ; no banks are included in Bucket 5 at present.

Note 2: ICBC, BOC, CCB, ABC in bucket 4 are also global systemically important banks (G-SIBs). They need to meet additional capital requirements for both G-SIBs and D-SIBs. According to the requirements stated in FSB's 2022 list of G-SIBs, ICBC and BOC have additional capital requirements of 1.5%, and ABC, CCB 1%. Therefore, the minimum regulatory requirements for CET 1 capital adequacy ratio are slightly higher for ICBC, BOC than for ABC and CCB.

Source: NFRA, Financial Stability Board, Basel Committee, collected and adjusted by S&P Global (China) Ratings.

After assessing whether or not regulatory capital requirements are met, we make detailed quantitative adjustment to assess the bank's tier 1 capital adequacy ratio, arriving at a preliminary assessment of capital and earnings. We usually take the tier 1 capital adequacy ratio as the core indicator in our evaluation of capital adequacy, before taking into account overall capital adequacy ratio and CET 1 capital adequacy ratio.

Table 9

How we assess different capital adequacy ratios

Ratio	Assessment Guide
Tier 1 capital adequacy ratio	The Tier 1 capital adequacy ratio adjusted by S&P Global (China) Ratings over the next 12-24 months is the core metrics deriving our initial score of commercial banks' capital and earnings.
Overall capital adequacy ratio	If a bank's Tier 2 capital buffer is much higher than the industry average which leads to a higher-than-industry average protection to a bank's creditors, we may apply a positive notching adjustment.
CET 1 capital adequacy ratio	If additional Tier 1 capital instruments (e.g. perpetual bonds) account for a high proportion of Tier 1 capital, leading to pressure on CET 1 capital adequacy despite Tier 1 capital adequacy ratio still fully meeting regulatory requirements or our cutoff points, we may apply a negative notching adjustment.

Source: S&P Global (China) Ratings.

We typically make quantitative adjustments to a bank' s Tier 1 capital adequacy ratios to better reflect its underlying capitalization and for better comparability with peers. The main adjustments applied for commercial banks are in the below table:

Table 10

Preliminary adjustments for banks' reported regulatory capital adequacy ratios

Typical Adjustment Factors	Reason for Adjustment	Adjustment Method
Internal Ratings-Based ("IRB") Approach	Six banks in China adopt the IRB approach. In addition to examining reported capital adequacy ratios under the IRB approach, we also look at capital adequacy ratios under the standardized approach for peer comparison purpose.	Adjust the risk weights under the IRB approach to risk weightings under the standardized approach.
Off-Balance Sheet Wealth Management Products ("OBS WMPs")	Banks are not legally obliged to make payments to investors of their WMPs. However, we believe in some cases, failure to pay on OBS WMPs may cause significant reputation risk, especially to small and medium-sized regional banks. We believe those banks may use their own capital directly or indirectly to protect WMP investors' interests, which may hence have negative impact on their capital.	In the absence of more detailed information, when we adjust banks' risk-weighted assets ("RWA"), we usually add outstanding non-net-value OBS WMPs whose underlying assets are non-standard debt assets to the banks' RWA with a 100% risk weight, which is the same as those for ordinary corporate loans. But we may not make such adjustment for new WMPs issued following the new WMP rules.

Under-Provisioning	We believe that some banks may temporarily hide their bad debts through unjustifiable loan extensions or lax classification criteria for non-performing loans, and thus bad loans may have already eroded actual capital base if existing reserve levels are not sufficient to cover actual credit losses.	If we believe reserves do not cover credit losses in full, we will deduct the uncovered losses from the bank's Tier 1 capital as part of our adjustment.

Source: S&P Global (China) Ratings.

Six Chinese banks use their own internal models to measure RWA when calculating regulatory capital ratios. This makes it harder to compare capital adequacy ratios between banks using IRB approach and standardized approach. Banks that use internal models generally apply their own risk weightings for key credit assets, which differ widely from those used by banks under the standard method. Therefore, for banks using the IRB approach, we look at capital adequacy ratios under both the IRB and standard approach for better comparability.

For banks that use the standardized approach, the adjustments we typically apply to their Tier 1 capital adequacy ratios are generally related to legacy off-balance sheet wealth management products and potential under - provisioning problems (summarized in the table below).

Table 11

Theoretical example of adjustments to commercial bank's Tier 1 capital adequacy ratio

(Bil. RMB, %)	No.	Calculation	Amount
Adjustments to RWA			
Non-standard assets within non-net-value OBS WMPs	(1)		8.56
Reported RWA	(2)		369.39
Adjusted RWA	(3)	(1) + (2)	377.96
Adjustments to net Tier 1 capital			
Loan loss reserve of problem loans*	(4)		17.65
Unrecoverable amount of problem loans under stress scenario	(5)		25.04
Under-provisioning under stress scenarios	(6)	Min [0, (4) – (5)]	(7.39)
Reported net Tier 1 capital	(7)		38.82
Adjusted net Tier 1 capital	(8)	(6) + (7)	31.43
Calculation of adjusted Tier 1 capital adequacy ratio			
Reported Tier 1 capital adequacy ratio	(9)	(7) / (2)	10.51
Tier 1 capital adequacy ratio adjusted by S&P Global (China) Ratings	(10)	(8) / (3)	8.31

Note 1 *: The problem loans take into account NPL loans and SML loans, assets classified as stage 2 or 3 under IFRS 9, overdue loans, and extended and restructured loans, and loans that, despite not being classified as NPLs or SMLs, have incurred serious risks and led to creditors' committees being established. We may also consider bad debts in non-standard product investments and bond investments, and OBS WMPs with implicit guarantee assumption. We may also make adjustments based on the strictness of the asset classification practices of a specific bank.

Note 2: This is only a theoretical example and doesn't represent our assessment of any specific bank.

Source: S&P Global (China) Ratings.

Beyond our adjustments to historical Tier 1 capital adequacy ratio, we also forecast the Tier 1 capital adequacy ratio for the next 12-24 months. This forecast is based on our view of a bank's business development plan, capital injection plan, planned issuance of hybrid bonds, and our forecast on net income and dividends payout. This adjusted Tier 1 capital adequacy ratio forecast is our core indicator that helps us arrive at an initial capital and earnings score.

We also consider whether a bank can strike a balance between developing its business and accumulating capital. Where a bank can generate capital at a rate consistent with its capital consumption without external capital injection or hybrid bond issuance, its capital adequacy ratio should be able to maintain stable.

After we arrive at our initial capital and earnings score, the next step is to analyze capital quality. In our assessment, we look at the proportion of CET 1 capital in total capital. In our view, the higher the proportion of CET 1 capital, the higher the capital quality. If the proportion of CET 1 capital is significantly lower than the industry average, the bank's capital quality may be lower than the industry average and we may apply a negative notching adjustment.

Table 12

Main Components of Different Levels of Bank Capital

Type	Major Components	Notes
CET 1 capital	• Paid capital or common stock • Capital reserves • Surplus reserves • General and regulatory reserves • Undistributed profits • Eligible portion of minority interests	Capital deductions: • Goodwill • Other intangible assets, excluding land-use rights • Loan loss reserves shortage • CET 1 capital investments in controlled but non-consolidated financial institutions
Additional Tier 1 capital	• Additional Tier 1 capital instruments and related premiums • Eligible portion of minority interests	• Perpetual bonds • Preferred shares • Convertible negotiated deposits
Tier 1 capital	Summation of CET 1 capital and additional Tier 1 capital	
Tier 2 capital	• Tier 2 capital instruments issued and related premium • Excess loan loss reserves • Eligible portion of minority interests	• If the Tier 2 capital instrument has a definite maturity date, over the last five years of its term the proportion counted as Tier 2 capital would be 100%, 80%, 60%, 40%, and 20%, respectively. • Under the standardized approach, excess loan loss reserves that can be included shall not exceed 1.25% of credit risk-weighted assets. • Under the IRB approach, excess loan loss reserves that can be included shall not exceed 0.6% of credit risk-weighted assets.
Total capital	Summation of Tier 1 capital and Tier 2 capital	

Source: NFRA, collected by S&P Global (China) Ratings.

We also consider a government or group's on-going capital support for its banking subsidiary when assessing capital adequacy. On-going capital support can improve the stability of bank's capital, which may in turn improve a bank's final capital and earnings score. We usually consider extraordinary group/government support for capital in times of crisis in our assessment of external support (which is not part of SACP analysis). However, where the group/government provides on-going capital support for a bank's day-to-day operations, we incorporate this into our assessment of capital and earnings, and thus eventually into our view on a bank's SACP.

4.2 Earnings Assessment

We usually make a quantitative forecast of a bank's earnings and dividends for the next 12-24 months and use these as our key input for Tier 1 capital adequacy ratio forecast over the next 1-2 years. In addition, we assess a bank's net interest margin ("NIM"), credit cost, cost-to-income ratio, return on equity and other related metrics, and compare its earning capacity against its peers and the industry average.

Another factor we consider for earnings quality is whether core sources of revenue are diversified and stable. Where revenue is highly dependent on non-recurring income or one-off revenue, or if a bank has insufficient provisions and reported inflated earnings, we may apply a negative notching adjustment.

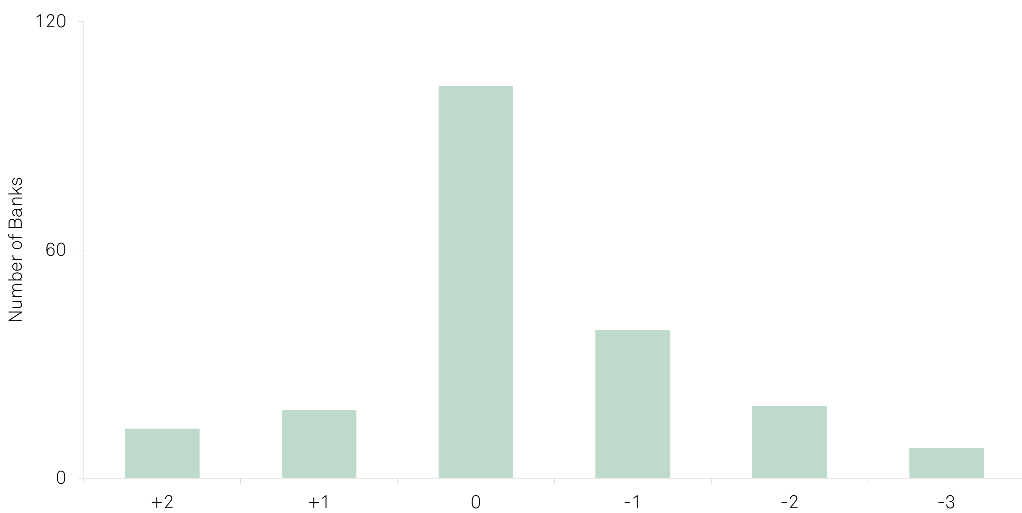
4.3 Capital & Earnings Testing Results

We tested the credit quality of 200 major commercial banks in China. In our evaluation of capital and earnings, we took the banks' adjusted tier-1 capital adequacy ratios as key indicators.

While most commercial banks have sufficient capital, some small- and medium-sized banks face capital pressure. Large state-owned banks, joint-stock banks and most regional banks' capital adequacy is at the industry average level, and we make no notching adjustments. Many foreign bank subsidiaries have high capital adequacy ratios and we apply upward adjustments of 1 or 2 notches. Certain regional banks face varying degrees of capital pressure, and downward adjustments of 1 to 3 notches are applied accordingly. Banks with a 2 or 3 notch downward adjustment tend to have capital erosion from high levels of bad debts.

Chart 6

Distribution of Indicative Capital & Earnings Notching of 200 Major Banks



Note 1: Notching is based on the bank anchor of "bbb+".

Note 2: The indicative credit quality distributions expressed in this report are only 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. 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.

Risk Position

Risk position is the third factor we assess to determine SACP. We use the risk position assessment to refine our view of a bank's risks beyond those covered by our capital and earnings analysis, which is the second factor. We assess factors other than those reflected in the capital and earnings adjustment, such as asset quality and risks related to other exposures. We do not have any set weighting on these factors, and instead take a holistic approach depending on the exposures.:

- Risk appetite: This covers growth and changes in exposures;
- Loss experience and expectations: A comparison of past and expected losses on the current mix of business with those of peers and loss experiences during past economic downturns. Greater-than-average losses may indicate a weaker risk position;
- Concentrations: The impact of risk concentrations or risk diversification;
- Complexity: How increased complexity adds risk; and
- Other material risks that are not addressed within our capital and earnings assessment.

We combine our views of these factors to arrive at an overall risk position assessment, which is assessed on a six-point scale, 1 indicating a very strong risk position and 6 a weak position.

Table 13

Risk Position Assessment

Score	Notching	What it typically means	Preliminary threshold for problem loan ratio
1	+2	A bank's risk position is materially better placed to withstand economic stress than the capital and earnings assessment indicates. Risk appetite is much lower than the industry average, asset quality is generally insensitive to the economic cycle in China.	=<1%
2	+1	A bank's risk position is better placed to withstand economic stress than the capital and earnings assessment indicates. Risk appetite is more prudent than industry average level, and asset quality performance is better than the industry average through the economic cycle.	1%-3%
3	0	A bank's risk position is able to withstand economic stress in line with the capital and earnings assessment. Risk appetite and asset quality performance are consistent with the industry average and generally in line with the average risk level of the real economy.	3%-6%
4	-1	A bank's risk position is somewhat less able to withstand economic stress than the capital and earnings assessment indicates. Risk management capability or asset quality performance is somewhat worse than the industry average, or risk appetite is somewhat more aggressive than the industry average.	6%-8%
5	-2	A bank's risk position is less able to withstand economic stress than the capital and earnings assessment indicates. Risk management capability or asset quality performance is worse than the industry average, or risk appetite is more aggressive than the industry average.	8%-11%
6	-3	A bank's risk position is considerably less able to withstand economic stress than the capital and earnings assessment indicates. Risk management capability and asset quality performance are far worse than the industry average, there may be serious weakness with its overall internal control.	>=11%

Note 1: The cutoff point should be applied in a forward-looking manner, and we make forecast on a bank's asset quality performance for the next 12 or 24 months.

Note 2: The problem loan ratio adjusted by S&P Global (China) Ratings takes into account NPL ratio and SML ratio, the percentage of assets classified as stage 2 or 3 under IFRS 9, the percentage of overdue loans, and the percentage of extended and restructured loans, and loans that, despite not being classified as NPLs or SMLs, have incurred serious risks or led to creditors' committees being established. We may also consider bad debts in non-standard product investments and bond investment, off-balance sheet wealth management products with implicit guarantee assumption, and off balance sheet ABS for which a bank may try to fill any cash flow shortfall. We may also make adjustments based on how stringent the asset classification practices of a bank is.

If the bank's NPL ratio, SML ratio, the percentage of assets classified as stage 2 or 3 under IFRS 9, net write-off ratio, SML migration ratio, normal loan migration ratio, credit cost, the percentage of extended and restructured loans, the percentage of overdue loans and other risk indicators generally provide an accurate reflection of the bank's situation, and it applies the same approach to the "five-level classification" standard as the industry average, we generally expect the problem loan ratio to be equal to the NPL+SML ratio. If there are wide data discrepancies we make adjustments accordingly, and arrive at a problem loan ratio reflective of the bank's actual asset quality.

If there are significant differences between the net write-off ratio and the bank's loan growth ratio and the banking industry average, risk appetite may not be accurately reflected in the bank's disclosed "five-level classification". We may make adjustments accordingly. If a bank's net write-off ratio is significantly higher than the industry average level, the bank's risk appetite may be higher than that indicated by its disclosed NPL ratio. In addition, if loan is significantly higher than the industry average, the disclosed NPL ratio may underestimate the actual non-performing level due to excessive growth of the denominator (total loans).

If we think the bank's asset classification standards are obviously different from industry practice, we may adjust disclosed data, leading to a different problem loan ratio from that disclosed by the bank. If the NPL ratio is significantly lower than the 90+ DPD ratio, we may give more consideration to the 90+ DPD ratio than the NPL ratio. On the contrary, if the SML ratio is consistent with the industry average, but its migration ratio is significantly lower than the industry average, we may consider its risk position as being better than that reflected by its SML ratio.

Note 3: If the bank's investment portfolio has high risk exposure, we conduct a similar risk position analysis of the portfolio.

Note 4: The threshold used is only the starting point of scoring. We also consider other qualitative and quantitative factors, so our final notching conclusion may differ from the conclusion drawn from the preliminary threshold analysis.

Source: S&P Global (China) Ratings.

Risk assessment is embedded in our capital and earnings assessment because bank capital is assessed based on risk weightings. We use the adjusted regulatory tier-1 capital adequacy ratio under the standardized approach as our core metric for assessing banks' capital and earnings. Under China's standardized approach, the risk weights are not very sensitive to the more nuanced risk in the loan portfolio. Therefore, the risk position assessment is very important in refining our views on risks beyond those identified in the capital and earnings analysis.

5.1 Risk Appetite

We monitor a bank's risks and whether any risks have increased or decreased as an indicator of changes in future exposures and losses. A change in risk appetite or profile could mean that traditional expertise that has helped a bank in previous market or economic downturns may not help as much in the future. Therefore, our risk appetite assessment is forward-looking.

We use the problem loan ratio as the core metric to assess risk appetite. The problem loan ratio adjusted by S&P Global (China) Ratings takes into account NPL ratio and SML ratio, the percentage of assets classified as stage 2 or 3 under IFRS 9, the percentage of overdue loans, and the percentage of extended and restructured loans, and loans that, despite not being classified as NPLs or SMLs, have incurred serious risks or led to creditors' committees being established. We may also consider bad debts in non-standard product investments and bond investments, off-balance sheet wealth management products with implicit guarantee assumptions, and off balance sheet ABS for which a bank may try to fill any cash flow shortfall.

The problem loan ratio may be different from a bank's reported risk metrics because we may make adjustments to reported ratios if we determine that a bank's asset classification practices are applied in a manner that is significantly different from typical industry practices. If a bank's NPL ratio is significantly lower than 90+ overdue loan ratio, we may give more credit to the 90+ overdue loan ratio compared to the NPL ratio. In contrast, if a bank's SML ratio is consistent with the industry average, but its SML migration ratio is significantly lower than the industry average, we may believe its risk appetite is lower than that indicated by its SML ratio.

The problem loan ratio is used in a forward-looking manner and our risk position assessment may be different from the historic problem loan ratio if we expect significant changes in a bank's risk position.

We may consider how lending and underwriting and business approval standards and practices link to risk appetite, as well as the robustness of the techniques used in monitoring and managing exposures. The following are examples of features that may suggest that a bank has good capacity to manage growth and changes in exposures:

- Showing lower recent organic or acquisitive growth and modest prospects for future growth than in the past and compared with peers, when the lower growth is based on avoiding risk and declining riskier growth opportunities that other FIs are willing to take;
- Maintaining lending and underwriting standards despite competition;
- Reducing its risk exposure, for example by exiting risky activities or tightening underwriting standards;
- Remaining focused on serving its core customer base with traditional expertise and limiting opportunistic activities; or
- Keeping a similar portfolio of risks that limited losses experienced in previous economic downturns.

Management may not have the capacity to manage additional risk presented by growth or other changes in exposure when a bank is displaying one or more of the following trends:

- Showing more aggressive recent organic or acquisitive growth and more significant prospects for future growth than in the past and compared with those of peers;
- Moving significantly into new product, customer, or market activities outside of its traditional area of expertise; or
- Displaying weakening underwriting standards relative to peers. Examples of this include a lender materially weakening its standards on a loan applicant's capacity to pay, borrower credit standing, or collateral coverage, or a bank increasingly underwriting larger or riskier transactions.

In our assessment of risk appetite, we also look at risk governance and related-party transactions. We may view a bank's risk position unfavorably if its lending and investment activities are inappropriately influenced by shareholders. We may look at metrics such as adjusted total equity compared with the largest related-party exposure and adjusted total equity compared with the total related-party exposure.

5.2 Loss Experience and Expectations

Here we consider the outcomes resulting from a bank's risk position. A stronger risk position is typically associated with relatively lower projected losses than for peers, and a better-than-average track record of losses during periods of economic stress. Conversely, weaker risk positions are typically associated with losses that are greater than average for peers, or a worse-than-average track record of losses during recent periods of economic stress. Examples of information that may inform our view of loss experience and expectations include:

- Credit provisioning and loss recognition that may be more or less aggressive than for peers;
- The potential impact of ongoing fiscal, monetary, and government policy measures on credit losses;
- Volatility in an equity portfolio that may be lower or higher than the regulatory capital; and
- Legal or regulatory costs or fines that can be higher or lower than for peers.

Credit provisioning is another important factor we consider in risk position. We have already adjusted for under-provisioning in our capital and earnings assessment. We may make further negative notching adjustments in our risk position analysis if we believe a bank is expected to be aggressive in loss recognition and its future provisioning will continue to be less than adequate. In contrast, we may view a bank's risk position favorably if a bank is expected to have conservative loss recognition and keep a provision buffer significantly higher than its peers.

5.3 Risk Concentrations

We assess the diversity of risk exposures because risk concentrations are one of the primary reasons for FI failures. Demonstrated diversity of risks can lead to lower overall losses relative to less diverse peers if the diversification is effective. Whereas the business position assessment captures concentrations or diversification in revenue contribution by business line, risk position focuses on the concentration of exposures to individual borrowers, counterparties, industries or sectors, or asset classes and risk types. There is a risk diversification benefit when, for example:

- Geographic diversification arises from exposures that are clearly connected with a client franchise across the nation or even abroad; and
- Sector or risk-type diversification arises from operations in activities that are not riskier than the bank's traditional core business.

Material risk concentrations arise, for example, from risk exposures by sector, region or single name in the loan portfolio, investment portfolio, and the trading book are significantly more concentrated than for peers. Other exposures include where a bank transacts with a limited number of counterparties and maintains a material amount of counterparty or other trading party exposures in contracts such as derivatives, lending facilities, or repurchase agreements with margin arrangements or other potential exposure. Such exposures are material and concentrated across few trades and/or counterparties.

We assess material risk concentrations using metrics such as equity compared with the largest 10 obligor exposures and equity compared with the largest obligor exposure.

5.4 Complexity

Complexity either is neutral to or weakens our view of risk position, depending on the degree to which it increases or obscures risks. However, the absence of complexity, in and of itself, is rarely sufficient to improve overall risk position.

Greater scale may bring diversification benefits but may also increase complexity. An ever-increasing level of complexity in products, business lines, regions, and organizational structure may outpace capacity to manage risk. Complex organizational structures, product offerings, revenue sources, funding structures, and intragroup exposures all heighten a bank's risk profile. We do not give credit for diversification to highly complex institutions that are most difficult to manage.

We consider how complexity may add or obscure risk, including from factors such as:

- Amount of business in complex products, such as derivatives, securitizations, and structured credit such as collateralized debt obligations (other examples of complex products may be those involving significant legal or regulatory risks or the potential for costly litigation arising from weaknesses in governance, risk appetite, or the control framework, for instance due to risks such as money laundering or mis-selling to retail clients);
- Transparency of underlying risk positions, risk management, earnings generation, or asset valuations, including off-balance-sheet activities;
- Over-reliance on mathematical models and their underlying assumptions to measure and manage risk and to value assets and liabilities;
- Exposure to low probability of occurrence but high-loss severity event risk, otherwise known as tail risk;
- Use of regulatory arbitrage to manage the balance sheet;

- Span of operations across jurisdictions, business lines, organizational structure or legal entities, which may stretch management's capacity to observe and address risk; and
- Whether silos in the approach to risk management may hinder a consistent measurement and management of risk exposure.

5.5 Other Material Risks

If other risks (including those associated with the trading book, illiquid or difficult to value securities, and underwriting-related risk) represent material additional risk beyond that reflected in the capital and earnings assessment, this may support a lower risk position assessment. Common risks that are not addressed within the capital and earnings assessment include structural interest rate and currency risk.

There also may be other, less common risks relevant to an individual bank that the capital and earnings assessment either does not capture or may not fully reflect. For instance, operational risk (including operational risks that could lead to conduct-related regulatory and compliance actions such as fines) may be more significant than reflected in capital and earnings. If we consider such risks to be material for a bank, they may influence the overall risk position assessment.

Interest rate risk: The assessment of interest rate risk includes structural interest rate risk, which arises based on the nature of assets, and strategic interest rate risk, including stemming from funding choices (such as short-maturity funding for longer-maturity assets). Factors that we may review when assessing interest rate risk include:

- The sensitivity of a bank's projected earnings and reserves to changes in interest rates or the shape of the yield curve based on its own stress testing;
- Senior management's engagement and awareness for setting and managing the amount of interest rate risk;
- The degree of maturity gap between repricing assets and liabilities; and
- The adequacy of a bank's risk management based on a review of its scenario and stress testing as it pertains to shifts in interest rates.

Currency risk: The assessment of currency risk includes the sensitivity of projected earnings and capitalization to changes in currency exchange rates. For example, this may occur when a firm has a material currency mismatch between a capital base denominated in local currency and assets denominated in foreign currency. The risk position assessment is weaker when currency risk is larger than its peers.

Operational risk: We consider here whether there are material or recurring operational risks over the level incorporated in capital and earnings. Examples of operational risk that could be material to creditworthiness include losses attributable to technology failures (including cyber risk), operational errors, fraud, and legal or regulatory actions (for example, related to consumer protection shortcomings).

Our assessment is typically neutral when we consider that a bank has adequate systems, policies, and practices to manage its operational risks. Material operating risks, or inadequate systems, policies, or practices, contribute to a weaker risk position assessment.

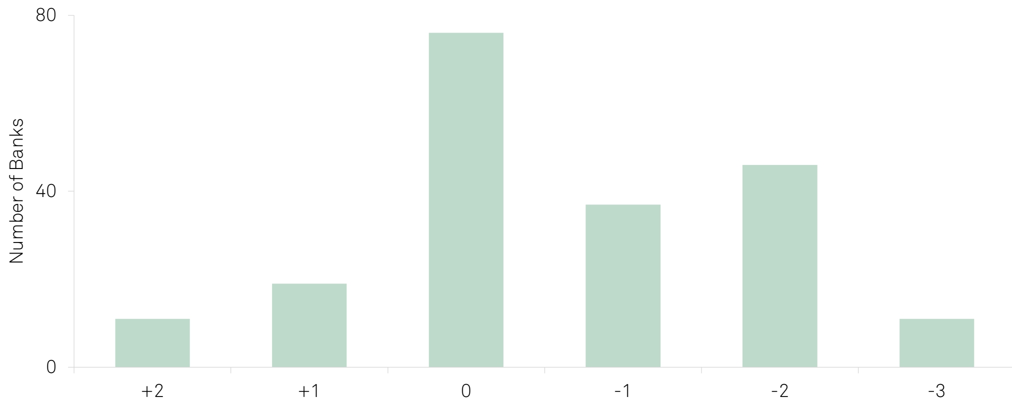
We also look into quality of information reported by the banks, including the quality of the financial reporting of the banks and their external auditors' views on the financial statements.

5.6 Risk Position Testing Results

We have tested the credit quality of 200 commercial banks in China. We used the problem loan ratio as the core quantitative indicator in our assessment. The testing results show huge differentiation in risk position among commercial banks. Most mega banks tend to have neutral risk position given their very large exposure to China's real economy. Joint-stock banks' risk position shows larger differentials ranging from +1 notching to -2 notching, while regional banks (including city and rural banks) have the largest differentiation. In extreme cases, we may have -3 notching on some small regional banks where we see seriously flawed internal control and risk management practices which threaten the viability of the bank.

Chart 7

Distribution of Indicative Risk Position Notching of 200 Major Banks



Note 1: Notching is based on the bank anchor of “bbb+”.

Note 2: The indicative credit quality distributions expressed in this report are only 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. 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.

Funding & Liquidity

Funding & Liquidity is the fourth factor we assess to determine SACP. We assess funding and liquidity separately and then combine them to determine their aggregate impact on the SACP. In assessing funding, we mainly consider the stability of an entity's funding sources and the likelihood they will be available to fund existing and new assets over an extended period. In assessing liquidity, we mainly consider an entity's ability to meet potential liquidity outflows that could occur over a short period during a time of stress.

Table 14

Preliminary Notching Guidance for Funding and Liquidity Assessment

Notching	Typical Features
+2	Very strong retail deposit base across China, and lower-than-industry-average reliance on wholesale funding. Liquidity is strong and bank would likely benefit from “flight to quality” phenomenon when the market is stressed, thanks to strong investor confidence.
+1	Strong, stable retail deposit base in its region. Lower-than-industry-average reliance on wholesale funding. Conservative liquidity management with superior and stable liquidity-related ratios.
0	Funding structure and liquidity position consistent with the industry average, with sufficient liquidity to function normally and meet minimum regulatory requirement on liquidity ratios even when the market is stressed.

-1	Funding structure and liquidity position somewhat worse than the industry average, typically with a high reliance on wholesale funding. Still able to function normally and meet minimum regulatory requirements on liquidity ratios under normal market circumstances. However, liquidity pressure may rise significantly when the market is stressed.
-2	Liquidity position is worse than the industry average, and the bank may have persistent difficulty in maintaining stable and ample liquidity position or meeting minimum regulatory requirements on liquidity ratios when the market is stressed.
-3	Eroded market confidence in the bank leads to a highly unpredictable liquidity position, with high chance of requiring central bank intervention for liquidity support.

Note: Notching is generally applied to our bank anchor of "bbb+".

Source: S&P Global (China) Ratings.

6.1 Assessing Funding

Our funding assessment focuses largely on the stability and diversity of an FI's funding sources, how well those sources match its assets, and the likelihood and extent they will be available over an extended period to fund existing and new assets, including during times of market or idiosyncratic stress. We use a variety of quantitative metrics and qualitative considerations specific to banks to assess funding.

We typically view funding sources as stable when they have characteristics such as:

- A low likelihood of run-off because they have long tenors, and are provided by the government or a strong and stable related party, or other unique characteristics;
- A long track record of consistent availability even during periods of market stress; and
- A long track record of limited volatility of cost.

We typically consider that an entity's funding sources match well with its funding needs when they:

- Significantly limit the possibility the bank could suffer liquidity outflows on its liabilities without offsetting liquidity inflows on its assets, and
- Allow the bank to earn an adequate return with limited interest-rate risk.

We assess the relative strength and potential volatility of funding by reviewing a bank's liabilities. This involves assessing the mixture of liability types, such as retail and wholesale deposits, interbank loans, and secured and unsecured borrowing in capital markets, including assessing risks relating to the currency denominations of the liabilities in the context of the assets they are funding.

We assess funding stability of banks as "above average", "average" and "below average".

Table 15

Funding Assessment for Banks

Descriptor	What it typically means	Starting Point for Assessment
Above average	In our view, the bank has strong and materially better-than-peers access to stable funding sources. This typically means that the bank has good funding diversity with sources that have a low likelihood of run-off, consistent availability, and costs that have very limited volatility.	With retail deposits typically accounting for about 40% of total customer deposits or above; and lower-than-industry-average reliance on wholesale funding, typically with customer deposits typically accounting for about 75% of total liabilities or above.

Average	In our view, the bank has access to stable funding sources that is roughly in line with that of peers. This typically means that the bank has relatively good funding diversity with sources that have limited likelihood of run-off, consistent availability, and costs that have limited volatility.	With an average reliance on wholesale funding, typically with customer deposits accounting for 55%-75% of total liabilities.
Below average	In our view, the bank has access to stable funding sources that is weaker than that of peers. This means that the bank may lack funding diversity or rely meaningfully on some sources with significant run-off risk, have proven to lack availability during times of stress, or have shown significant volatility of cost.	With a high reliance on wholesale funding, typically with customer deposits accounting for less than 55% of total liabilities.

Note: The threshold used in our testing is only the starting point of scoring. We also consider other qualitative and quantitative factors, so our final notching conclusion may differ from the conclusion drawn from the preliminary threshold analysis.

Source: S&P Global (China) Ratings.

We typically consider quantitative metrics such as:

- Wholesale funding to total funding base (or total liability);
- Deposits to total funding base (or total liability);
- Retail deposits to total deposit base;
- Regulatory net stable funding ratio; and
- Customer loans to customer deposits ratio.

We typically consider the following qualitative factors:

- Overall funding mix (the mix between different sources including retail and wholesale deposits, interbank loans, and secured and unsecured borrowing in capital markets);
- Likelihood and track record of deposit stability;
- Composition and concentration of wholesale funding base;
- Management of the impact on funding stability of structural interest rate and foreign exchange exposures, and sensitivity to adverse market movements,
- Dependence on central bank or government-provided term funding facilities,
- Quality of management information and governance,
- How the bank sets its funding limits, and
- Signs of constraints in access to one or more sources of funding.

When assessing the likelihood of deposit stability, we typically consider items such as:

- What percentage of the deposit base is repayable on demand;
- What percentage comes from nonresident or uninsured deposits;
- Concentration of deposits by channels compared with peers;
- How the bank's deposit pricing compares with peers;
- Whether the bank is overly dependent on a few large depositors; and
- How the bank assesses the strength of its deposit franchise, stickiness, and price sensitivity, and what is our view of its assessment.

When analyzing the composition of the wholesale funding base, we typically consider:

- Extent of concentration/diversification by funding source, type of investor, currency, geography, and maturity;
- Exposure to cross-border and short-term funding; and
- Access to untapped funding sources.

When assessing signs of constraints in access to one or more sources of funding, we typically consider:

- Increased margins or collateral,
- Increased challenges in issuing long-term debts,
- Increased withdrawal of deposits or wholesale funds/lines, and
- Adverse movements in market signals.

Table 16

Key Factors	Typical Characteristics of Stable Funding
Term structure	The majority of funding consists of a reasonable mix of long-term or medium-term unsecured debts, without over-reliance on unstable short-term debt financing.
Funding source	The bank has easy access to a variety of stable debt funding, including deposits, interbank markets, and bond markets, etc.
Currency risk	If the bank holds a large amount of assets in different currencies, it has reliable hedging strategies to manage and hedge the associated market risk, and in addition, the bank does not rely heavily on funding from foreign creditors.
Maturity concentration	For banks with any significant debt maturity or single obligator concentration, we believe that such concentration would not trigger serious refinancing risk.
Market confidence	The bank will not lose access to funding as a result of investors/counterparties losing confidence in it.
Funding cost	The bank's funding costs will not increase significantly due to weakening market confidence and will not put significant pressure on its profitability.

Source: S&P Global (China) Ratings.

6.2 Liquidity

Our liquidity assessment focuses largely on an FI's ability to withstand liquidity outflows that could occur typically under stress over the coming 12 months by considering the entity's: (1) Potential liquidity sources--on- and off-balance-sheet; (2) Potential liquidity uses--on- and off-balance-sheet; and (3) Liquidity sources compared with liquidity uses. We assess banks' liquidity with a five-point scale.

Table 17

Liquidity Assessment for Banks	
Score	What it typically means
1/strong	In our view, the entity will withstand a stressed outflow of liquidity completely or largely by utilizing on-balance-sheet sources of liquidity.
2/adequate	In our view, the entity is highly likely to withstand a stressed outflow of liquidity, but our confidence in that assessment is somewhat lower than for an entity with 1/strong liquidity. The entity may also need to utilize secondary sources of liquidity under some plausible stress scenarios.
3/moderate	In our view, the entity has a lower likelihood than an entity with 2/adequate liquidity of withstanding a stressed outflow of liquidity and a higher likelihood of having to access secondary or emergency liquidity sources.

4/weak	We have limited confidence that the entity could withstand a stressed outflow of liquidity without significantly utilizing emergency sources of liquidity.
5/very weak	Eroded market confidence in the bank leads to a highly unpredictable and very weak liquidity position, with high chance of requiring central bank intervention for emergent liquidity support.

Source: S&P Global (China) Ratings.

We typically start with the regulatory quantitative metrics, such as regulatory liquidity coverage ratio and net stable funding ratio. We may also consider other quantitative and qualitative factors that could affect the overall liquidity assessment. For instance, we may look at:

- Ability to access contingent sources of liquidity not reflected in the primary metrics;
- Contingent sources of liquidity risk not reflected in the primary metrics.
- The complexity of the entity's liquidity risks;
- The confidence sensitivity of the entity;
- The robustness of the entity's liquidity stress testing and contingency planning;
- Significant liquidity risks that could arise beyond the time horizon captured in relevant metrics;
- Market signals that may suggest a rising inability to access certain types of sources of liquidity; and
- Significant ongoing dependence on central bank resources.

In considering sources of liquidity, we may also consider:

- Systemwide liquidity facilities at central banks or other government sources, both routine and extraordinary;
- The sale or repo of unencumbered high-quality liquid securities in the open market;
- The amount of cash or securities that may be encumbered;
- Liquidation of short-term advances to other financial institutions sold and reverse repos;
- Cash available from maturing advances to customers;
- Accessing the debt and stock markets to the extent still possible; and
- Accessing securitization or covered bond markets.

In considering uses of liquidity for banks, we may also consider:

- Deposit composition: retail versus corporate, relationship-based versus rate-based, insured versus uninsured, domestic versus international. In each case, we typically consider the first more stable than the second, although this can vary by entity;
- The maturity profile of wholesale liabilities: Inability to roll over short-term unsecured borrowings (e.g., commercial paper, certificates of deposit, promissory notes) or to refinance maturing long-term unsecured debts; and
- Market-driven inability to roll over maturing short-term secured debts or repurchase agreements. That is, the market can dry up altogether for lower-quality securities, seek increased margins, collateral requirements, or credit spreads.
- Considering potential liquidity consumption, we look at on-balance sheet liquid assets as a proportion of total assets to gauge ability to absorb outflows that might be expected to occur under stress scenarios.

Noncontractual or reputational contingencies arising from management's perceived need to preserve franchise value may be important when assessing potential liquidity uses. Examples include:

- Calling long-term debts at the first call date, despite having no contractual obligation to do so;
- The provision of support to securitizations that the entity originates; and
- Protecting investors from losses on its wealth management products.

Typical characteristics of sound liquidity include:

- The liquidity management system provides good tracking of cash inflows and outflows.
- The bank has effective liquidity stress scenario management plan.
- There are no significant concentrations of assets or liabilities that could affect the company's liquidity in the next 12 months.
- There is no possibility of large unexpected outflows of funds that would strain liquidity resources.
- There is no significant liquidity trigger event in the next 12 months.
- Even in stressed scenario, overall funding will not deteriorate significantly.
- The market signals are stable, and the bank has easy access to unsecured funding from counterparties in the inter-bank market.
- Liquidity on the asset side is expected to remain stable over the next 12 months.
- We don’t expect any other significant liquidity stress over the next 12 months.

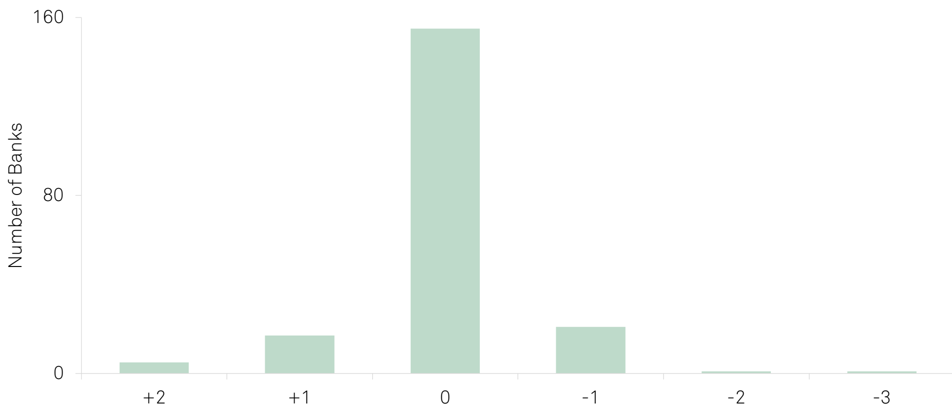
6.3 Funding & Liquidity Testing Results

We have tested the credit quality of 200 commercial banks in China. In our desktop analysis, we use funding composition and deposit composition as the key metrics for the preliminary quantitative assessment of funding, and regulatory liquidity coverage ratio and net stable funding ratio as the key metrics for the preliminary quantitative assessment of liquidity. We also assess market signals, such as the interest cost for borrowing through negotiable certificate of deposit (NCD), to gauge a bank’s access to wholesale funding on the inter-bank market.

We believe the majority of commercial banks have stable funding and adequate liquidity. Mega banks with leading retail deposit base and light reliance on wholesale market are viewed as banks with the best funding and liquidity profile, thus with either 1 or 2 notch uplift on funding & liquidity. Other banks with very stable deposit base, light reliance on wholesale market and very strong liquidity may have one notch uplift for funding & liquidity. Banks with downward adjustment are typically banks whose use of wholesale funding is significantly higher than bank average, making their liquidity vulnerable during market stress, or banks whose weak asset quality or capitalization may cause concern from counterparties or depositors, making their funding profile less stable than bank average.

Chart 8

Distribution of Indicative Funding & Liquidity Notching of 200 Major Banks



Note 1: Notching is based on the bank anchor of "bbb+".

Note 2: The indicative credit quality distributions expressed in this report are only 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. 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.

Holistic Adjustment

The result of the analysis of the four entity-specific factors (business position, capital & earnings, risk position and funding & liquidity) typically forms a financial institution's preliminary SACP. We may then adjust the preliminary SACP to arrive at the entity's final SACP.

We may apply the holistic adjustment in either direction to arrive at the SACP, capturing a more holistic view of creditworthiness.

Typically, the holistic adjustment is only one notch because the preliminary SACP should have already been a relatively reasonable assessment of an issuer's stand-alone credit quality. But in rare cases, the holistic adjustment can be more than one notch for extraordinary situations.

The holistic adjustment is generally applied after conducting a peer comparison. The peer analysis assesses an FI's relative credit standing among FIs with similar SACPs (that is, the same or one notch higher or lower). For example, if an FI has an SACP of "a_{spc}-", we compare it with FIs with SACPs of "a_{spc}", "a_{spc}-", and "bbb_{spc}+".

The holistic adjustment may cover other credit factors not included in previous analysis, which may be either temporary factors or structural factors. In addition, the holistic adjustment may also include credit factors not fully reflected in other parts of our SACP analysis. An example of a holistic adjustment based on credit factors not fully captured in the assessments of the other SACP factors could be an FI for which we decide to apply a one-notch positive adjustment because we believe that several SACP factors are close to a higher assessment, without material offsetting negative factors, such that the cumulative effect is representative of a higher SACP.

We don't make an adjustment to the SACP for potential external support or negative intervention if it is extraordinary, but we can make an adjustment when such support or negative intervention is ongoing--if it has not already been reflected in the SACP factors. This SACP may include ongoing support but typically does not include extraordinary support.

External Influence

Where the rated entity's credit quality may be affected by external factors, typically from its group or the relevant government, we consider such factors when determining the issuer credit quality. The final credit rating on an entity is a combination of its stand-alone credit quality and external influence.

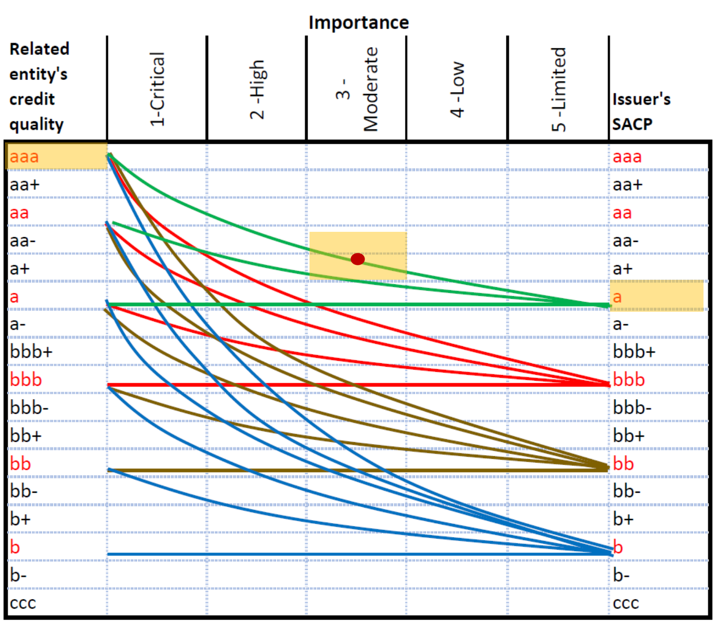
In some cases, the entity may receive not only group support but also government support. In such cases, we usually evaluate the impact of both support types on the entity's credit quality and select the better support type in our analysis of the final issuer credit rating.

If we expect the entity to receive external support and the support provider has stronger credit quality than the rated entity, such support would then have a positive impact. In contrast, where we expect a negative effect or interference from the group or government, there may be an impact on the rated entity's credit quality. In most cases, the group or government usually has stronger capital and stronger credit quality than the rated entity, and thus the likelihood of the rated entity receiving external support is higher.

The framework we use to determine notching for support is mainly based on these three factors: the issuer's SACP, the creditworthiness of the supporting entity (group or government), and our assessment of the importance level of the issuer to the supporting entity (on a scale of 1 to 5). The support curve below shows how the issuer's SACP relates to the credit quality of the supporting entity, as well as the impact of the importance level of the issuer to the supporting entity on the final ICR.

Chart 9

Support Analysis Framework



Note: In our evaluation of the supporting entity's credit quality, the rated entity's importance to the supporting entity and the SACP of the rated entity, we usually start from the midpoint on the curve in the framework and consider whether further increases or decreases are needed, before arriving at the rated entity's issuer credit rating. When the importance is "1/critical", we may equate the rated entity's issuer credit rating with that of the supporting entity.

The support curve framework is not intended to be used in a rigid manner. It is a tool to help us make reasonable and consistent analytical decisions. In rare cases, we may determine an outcome that does not fall on the curve when we deem it appropriate.

Source: S&P Global (China) Ratings.

We believe the strength of support correlates with the level of importance an issuer has to the related government. The level of importance may be "1/critical", "2/high", "3/moderate", "4/low", or "5/limited". As the level of importance increases, so does the potential for an uplift to the issuer rating where the relevant government demonstrates higher credit quality.

8.1 Government Support

Commercial banks are essential to the normal operations of the economy by creating credit and achieving maturity transformation. Banks typically operate with a high leverage and the sector is fully exposed to the credit risk in the real economy, particularly the risk of real estate bubbles or excessive leverage in the private or public sector. As a result, the banking sector can sometimes become vulnerable, requiring on-going regulatory oversight and occasional public support to ensure financial stability.

In addition to generating dividends for shareholders, commercial banks, particularly state-owned banks, are conduits for economic and monetary policies in numerous aspects of economic activities in China, such as promoting economic recovery from COVID-19, stabilizing employment through supporting small and micro businesses, promoting more environmentally sustainable development, developing advanced manufacturing and phasing out excess capacity, and preventing the real estate sector from overheating.

The importance of banks to financial and social stability has led to tight regulation of the industry. Effective regulation in capital, liquidity, reporting and risk management is very important to the sustainability of the industry. However, beyond on-going regulatory oversight, occasionally, the banking sector may need some level of systemic public support (such as accommodative monetary environment to help liquidity), and some banks may need more targeted public aid in stress scenarios. There are various types of government support and we may incorporate our view on that support at different stages of our analysis, depending on the type of government support:

Table 18

Type of Government Support	How it is reflected in the ratings
Systemic support for banks in general	Systemic support (including supervision) provided by the government to the banking industry is generally incorporated into our anchor as of our assessment of industry risk
Targeted support for specific banks' daily operations	Such support is reflected in the bank's SACP analysis where we look at entity-specific factors or as a holistic adjustment, but not in the anchor.
Potential extraordinary support for specific banks	The likelihood of extraordinary government support for banks in crisis scenarios. Such support is not covered in our analysis of the anchor or SACP, but forms an integral part of the ICR.

Source: S&P Global (China) Ratings.

When analyzing a bank's importance to the government, we consider its systemic importance and its economic and financial role in its country/region. We also look at factors reflecting the relationship between the bank and government, such as any equity relationships with the government (such as ownership, the largest shareholder, actual controller, etc.), or if the government has any influence on the bank's management, etc.

To safeguard systemic stability, the government may also provide extraordinary support for non-state-owned banks. State-owned banks are more likely to receive government support, with the government's ownership of important state-owned financial institutions usually part of a long-term strategy. Despite this, we would still consider extraordinary government support for private financial institutions based on their systemic importance.

In our opinion, banks with high systemic importance are often:

- Institutions with significant levels of public deposits,

- large in scale,
- conduct large volumes of transactions in the interbank market, and
- may pose significant contagion risk in a crisis scenario, affecting national financial stability.

To gauge the degree of systemic importance, we closely monitor public statements released by the government and regulator related to systemically important institutions.

Our assessment of domestic bank creditworthiness typically considers the possibility of government support in times of stress. For regional banks, we assess their importance to both the regional government and central government given the fact that historical extraordinary support given to troubled banks has been provided through coordinated efforts among different levels of governments. Based on this, we select the most appropriate notching adjustment for government support.

Table 19

Bank type	Typical Importance Level to the Central Government	Typical Importance Level to Provincial Government	Typical Importance Level to City Government
Mega bank	1/Critical	N.A.	
Joint-stock bank	2/high or 3/moderate	2/high if a bank has close ties with a specific region	N.A.
City and rural bank	3/moderate, 4/low, or 5/limited	2/high if it is a provincial-level bank; 3/moderate or 4/low if it is a state-owned city level bank; 5/limited if it is a small private bank.	2/high if it is a large state-owned city bank; 3/moderate or 4/low if it is a state-owned local bank or large and medium-sized private bank; 5/limited if it is a small private bank

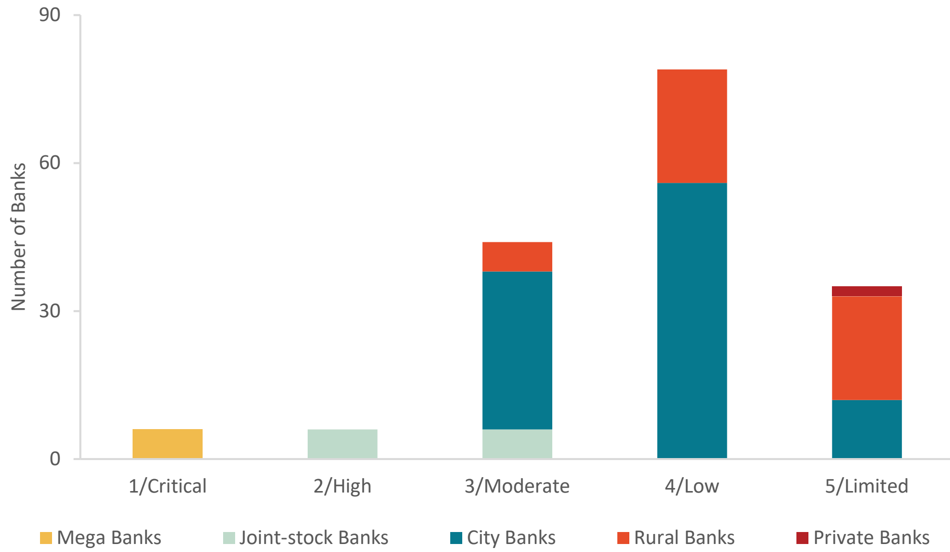
Note: This table is only the starting point for our analysis, and if an institution has idiosyncratic characteristics, our final assessment may be different from what is indicated in the table.

Source: S&P Global (China) Ratings.

We believe the state-owned mega banks are of "1/critical" importance to the central government given their strategic importance to the execution of national policies. Given their market positions and ownership structures, joint-stock banks are generally of "2/high" or "3/moderate" importance to the central government. Regional banks can be of "3/moderate", "4/low" or "5/limited" importance to the central government. Medium and small-sized regional banks may also have "4/low" importance to the central government because of their status as deposit-taking institutions and the high contagion risk in the interbank market. For small private institutions, such as private banks, we believe there is significant uncertainty over whether or not the government would offer extraordinary support in a crisis, and we may view them as having "5/limited" importance and make no adjustments for government support. Finally, for foreign bank subsidiaries, we generally do not consider there being any likelihood of them receiving support from the Chinese government.

Chart 10

Distribution of Indicative Importance of Major Chinese Banks to the Central Government



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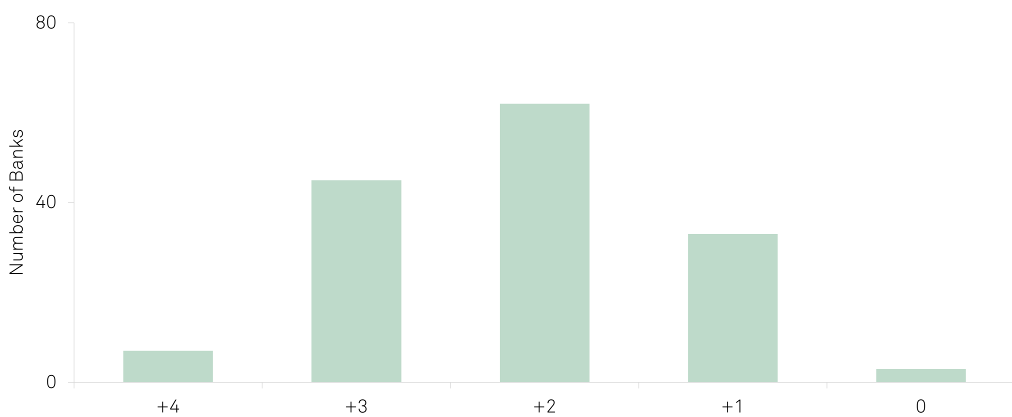
Source: S&P Global (China) Ratings.

Chart 11

Distribution of Indicative Support Notching of Major Domestic Banks



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Source: S&P Global (China) Ratings.

8.2 Group Support

Group influence is integral to the credit quality of many financial institutions. Group influence can either be positive support or negative intervention, and it can come in two forms – ongoing influence or extraordinary influence. An entity's stand-alone credit profile ("SACP") typically incorporates a group's ongoing positive or negative influence on the rated entity. However, SACP does not reflect the positive or negative impact a group may have during an extraordinary crisis scenario.

Ongoing support generally refers to group activities that impact the entity's daily operations. Ongoing support is generally captured by the entity's SACP and may be reflected in our assessments of business position, capital and earnings, risk position, or funding and liquidity. In certain cases, ongoing group support may be incorporated into the holistic adjustment during our SACP analysis.

Table 20

	Positive Group Support	Negative Group Influence
Ongoing group influence on daily operations	Positive impact on entity's SACP	Negative impact on entity's SACP
Group influence in extraordinary crisis scenario	Positive impact on entity's ICR that is not incorporated into its SACP	Negative impact on entity's ICR that is not incorporated into its SACP

Source: S&P Global (China) Ratings.

Table 21

Assessing ongoing group support	
SACP rating factors	**Ongoing support**
Business Position	Ongoing group support may be reflected in the subsidiary's business scale, product advantages and customer/revenue stability.
Capital & Earnings	The group's capital injections are reflected in subsidiaries' capital adequacy ratios. Low-cost wholesale funding provided by the group is reflected in subsidiaries' NIM and overall profitability.
Risk Position	Ongoing support for risk management from the group is reflected in the subsidiary's risk appetite, asset quality indicators and risk management performance.
Funding & Liquidity	Day-to-day wholesale funding and liquidity support provided by the group is covered in our funding & liquidity analysis.
Holistic Adjustment	If ongoing group support is not fully reflected in our entity-specific analysis, we can reflect the impact of such support as a holistic adjustment.

Source: S&P Global (China) Ratings.

The importance of the issuer to its group usually depends on its strategic role within the group and the potential impact its default would have on the group. When evaluating importance, we usually consider the following factors:

- the amount of equity held by the group,
- the group's role in appointing subsidiaries' management and the degree to which it participates in the subsidiary's daily operations,
- the relevance of the subsidiary's name and branding to the group,
- the contribution of its business to the group,
- the commitment of the group's management to long-term investment in the subsidiary,
- the degree of coordination between the group and subsidiary in terms of operations.

For banking group subsidiaries, to achieve at least a "2/high" importance level, we typically expect the following:

- the subsidiary is majority owned by the parent;
- the subsidiary and the parent share the same logo and brand;
- the parent has effective corporate governance in place, particularly on risk management;
- the subsidiary's operations form an integral part of the parent's banking operations, and there is strong business synergy between the two;
- the parent provides the subsidiary with sufficient capital to support its business development and comply with regulatory requirements;
- the subsidiary is fully integrated into the parent's risk management framework, sharing the risk management culture and skills of the parent;
- the subsidiary has easy access to funding and liquidity support from its parent; and
- the parent has clearly expressed strong willingness to support its subsidiary in times of need.

If we believe a subsidiary has "1/critical" importance to its parent, in addition to all the factors we consider for "2/high" importance level, we typically look for the following additional characteristics: the parent is positioned as a truly global bank, and China, as the world's second largest economy, has high strategic importance to the parent's global network, or the parent is based in APAC region, and China is a core part of its regional network; and the parent has meaningful exposure to China; or any other reason we believe makes the subsidiary critical to the group.

On our national scale, we may assign "AAA_{spc}" ratings to foreign parent banks rated by S&P Global Ratings at "A" or above, and therefore such a rating may not be able to fully reflect the credit differentiation on foreign banks which are rated over "A" (such as "A+" and "AA-") by S&P Global Ratings.

We use our Panda Bond Methodology to assess foreign bank subsidiaries' parent banks' creditworthiness on our national scale. Credit differentiation may be considered when we decide on support notching for the China subsidiaries. The following theoretical example demonstrates how this would work. While all three of parent banks A, B and C have credit quality of "AAA_{spc}" on our national scale, their capacity to support their China subsidiaries may vary because of the rating differentiation reflected by the ratings assigned by S&P Global Ratings.

Table 22

Hypothetic examples of group support notching	**Bank A**	**Bank B**	**Bank C**
S&P Global Ratings on Parent Bank	AA-	A+	A
S&P Global (China) Ratings' Likely Credit Views on Parent Bank	AAA_{spc}	AAA_{spc}	AAA_{spc}
China Subsidiary's Importance to Parent Bank	2/high	2/high	2/high
SACP of the China Subsidiary Assigned by S&P Global (China) Ratings	a_{spc}	a_{spc}	a_{spc}
Likely Support Notching for China Subsidiary by S&P Global (China) Ratings	+4 or 5 notches	+3 or 4 notches	+2 or 3 notches
Likely ICR assigned on China Subsidiary by S&P Global (China) Ratings	AAA_{spc} or $AA_{spc}+$	$AA_{spc}+$ or AA_{spc}	AA_{spc} or $AA_{spc}-$

Note: We use our Panda Bond Methodology to assess parent banks' creditworthiness on our national scale. Our analysis of foreign issuers typically considers the credit opinion that S&P Global Ratings may have on that issuer. We typically use S&P Global Ratings' opinion of credit quality as the starting point for S&P Global (China) Ratings' rating determination. Once we have an S&P Global Ratings opinion of credit quality, we consider how this may be transformed into an S&P Global (China) Ratings credit rating. Typically, this transformation follows the below scenarios:

Where the foreign issuer has relatively low credit quality, typically equivalent to below BBB category credit quality as determined by S&P Global Ratings, S&P Global (China) Ratings may assign a similar view of credit quality with adjustments of up to 2 notches; and

Where the foreign issuer has stronger credit quality characteristics, such as equivalent to or higher than BBB category credit quality as determined by S&P Global Ratings, S&P Global (China) Ratings may assign a view of credit quality within a range of 2 to 5 notches higher than the credit quality opinion of S&P Global Ratings.

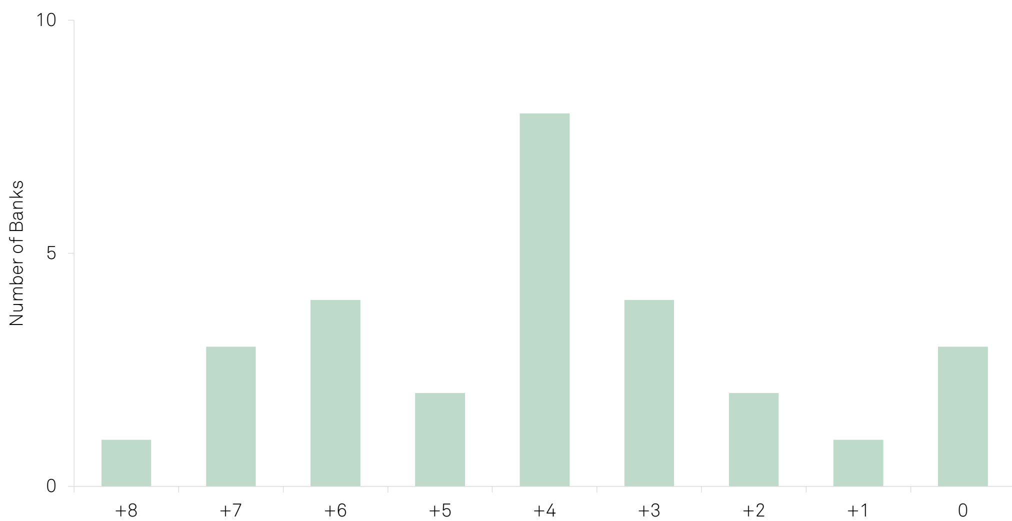
Source: S&P Global (China) Ratings.

In general, the reference for group support is the foreign bank's issuer credit rating, unless the issuer credit rating has foreign government support notching, and we believe foreign government support is unlikely to flow to the China subsidiary. In such case, our reference for support would exclude the foreign government support element.

If the group's creditworthiness is weaker than the subsidiary's SACP, it may have a negative impact on the issuer credit rating of the latter. If we expect negative group interference in the subsidiary's business, we may notch downwards from the SACP to give a lower issuer credit rating. In some cases, the subsidiary's ICR may be equal to that of its group. If we think the likelihood of negative group impact on the subsidiary is low, then we would be less likely to notch downwards, leaving the ICR unchanged from the SACP.

Chart 12

Distribution of Indicative Group Support Notching of Major Foreign Bank Subsidiaries



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Source: S&P Global (China) Ratings.

This report does not constitute a rating action.