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**S&P Global**

China Ratings

# The Post-Covid Recovery

China Outlook 2023

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# Introduction

## Key Takeaways

- As COVID controls ease, we expect an accelerated economic recovery, ushered in by a return to growth for airlines, highways, airports and other industries. Demand for thermal power, chemicals and nonferrous metals should gradually recover, with demand for coal, clean energy and passenger vehicles set to stay stable.
- Ongoing pressure in the real estate industry may see further differentiation in credit quality among LGFVs, construction companies, small and medium-sized banks and other industries. Major turbulence among property developers has intensified credit quality differentiation in the real estate sector itself.
- State-owned corporates should regain access to financing channels, with liquidity remaining at a good level. We expect LGFV financing policy to remain tight, with potential refinancing and liquidity pressure among weaker LGFVs. Some leading POEs may receive more policy support.

We expect GDP growth to reach 5.0% in 2023, marking a significant recovery from 2022's growth rate of 3%. As COVID controls ease, the 2023 recovery should largely be built on an uptick in domestic consumption and investment. As domestic demand increases inflation may rise, but we expect it to remain within the target range of 3%. China's development strategy is changing, with new policies geared towards common prosperity and greater economic self-reliance. Taking this long-term strategy into consideration, we have increasingly factored in lower emphasis on the quantity of growth in favor of factors such as deleveraging and lowering inequality so our baseline includes some of these dynamics.

As China's COVID policies change, we expect an accelerated economic recovery, ushered in by a return to growth for airlines and transportation infrastructure, especially highways and airports. Demand for thermal power, chemicals and nonferrous metals should gradually recover, helping to improve players' profitability. Demand for coal, clean energy and passenger vehicles should stay stable. However, as some economic stimuli need time to enter effect, we expect the recovery to be more pronounced in the second half of 2023. Along with infrastructure construction, we expect consumption to drive the recovery after the second quarter.

Daily operations of airlines, highways and airports stand to benefit in particular from easing COVID controls. The removal of travel restrictions lifts limits on passenger flows, which are vital to these industries. We expect a significant uptick in business growth and cash inflow, but the recovery remains exposed to any further changes in COVID policy, consumers' disposable income and the wider economic recovery. The second half of 2023 may see a stronger performance.

Demand for upstream bulk commodities (except steel, given its real estate exposure) is set to improve. Furthermore, if prices of crude oil and other raw materials drop off, players should see improved profitability. Amid the gradual economic recovery, demand for thermal power, chemicals and nonferrous metals is set to grow compared with 2022. We also expect crude oil and coal prices to fall compared to 2022 levels. These demand-side and cost-side tailwinds should provide players with more opportunities for profit.

Steel faces declines in both output and prices as the real estate sector continues to struggle. We expect steel mills' profitability to be at a low level. 2022's supply and demand tightness in the coal industry should ease off. While coal prices are expected to decline, they should stay at a relatively high level, giving coal producers decent profit space.

Downstream demand for bulk commodities (residential housing, automobiles) should either stay stable or see slight shrinkage. Those players with weak competitive positions may come under credit quality pressure, especially in terms of their business performance as profit opportunities

## ANALYSTS

### May Zhong

Beijing

May.zhong@spgchinaratings.cn

### Xiaoliang Liu

Beijing

Xiaoliang.liu@spgchinaratings.cn

### Ying Li

Beijing

Ying.li@spgchinaratings.cn

### Kan Zhou

Beijing

Kan.zhou@spgchinaratings.cn

### Dan Li

Beijing

Dan.li@spgchinaratings.cn

narrow. We expect an “L-shaped” trend in residential housing sales, with more time needed for a recovery in demand. Many private property developers in lower-tier cities may come under greater pressure to sell off inventory, affecting long-term business performance.

Automakers are expected to become more reliant on sales of new energy vehicles. Those automakers that have not yet built strengths in NEVs may see their overall competitive position come under significant pressure in the wider auto industry. Amid intensified industry competition, automakers can't easily pass on costs to consumers, and with fewer subsidies available, profit space is narrowing. Those automakers that haven't laid groundwork in NEVs may face dual pressure from declining income and profits.

Downstream demand for engineering and construction firms and construction machinery, especially from property developers, remains weak. In these sectors, the widening working capital gap is set to put pressure on leverage ratios. The real estate sector's woes may lead to a small decline in business scale for private E&C companies, particularly those involved in housing construction and architectural work. However, E&C SOEs are expected to focus on orders for infrastructure projects, such as railways, highways, hydropower, new energy, etc. In addition, fiscal tightness among LRGs and developers would put more pressure on E&C companies' turnover of inventory and accounts receivable. The E&C sector may come under pressure to restore growth, with the growing gap in players' working capital possibly increasing, leading to further financing demand and higher leverage.

The construction machinery industry in 2023 should still see pressure from declining sales, with the sector bloated and demand for replacement machinery already largely fulfilled. Declining profits and growing exposure to risks from making sales on credit may see growing debt and leverage.

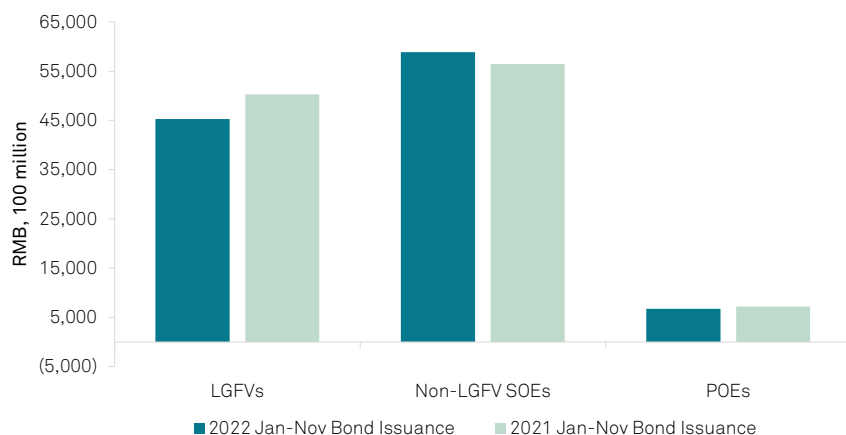
We also note that fiscal revenues may come under pressure amid dwindling land transfer activity. This would impact on LRGs' ability to support LGFVs. With fewer resources at hand, LRGs would be more selective in which LGFVs they support. Credit quality among weaker LGFVs is deteriorating, with growing risk of default.

As LGFVs and the E&C industry see ongoing credit quality differentiation, the gap in credit quality between real estate developers and small and medium-sized banks should also widen at a faster pace. Changes in the industry in recent years have seen state-owned property developers become the top players in the industry. They have outstanding land bank advantages, stronger growth opportunities and better refinancing capacity. Private developers with many projects in lower tier cities should face greater pressure to sell off inventory, impacting on future business performance. At the same time, their refinancing support is limited. Problem loans to players in some industries have already put certain regional small and medium-sized banks' capitalization under significant pressure. Rising NPL ratios in the real estate sector and forbearance measures extended to SMEs should also shed light on which banks' capital positions are more resilient.

State-owned corporates should retain access to financing channels, with liquidity staying at a good level. We expect ongoing tightness in LGFV financing policy, with potential refinancing and liquidity pressure among weaker LGFVs. Leading POEs may receive more policy support. From January to November 2022, 6 trillion RMB in bonds were issued by SOEs, up by about 4% YoY. This was higher than bond issuances among LGFVs and POEs. However, tight financing policy has seen the total LGFV bond issuance amount and the number of LGFV issuers decrease YoY. We expect LGFV financing policy to remain tight in regions with high debt ratios. The financing environment in different regions is set to become more differentiated. Liquidity pressure on LGFVs in Yunnan, Guizhou, Gansu and Tianjin is set to become more pronounced. POEs are receiving more policy support in terms of direct and indirect financing. Stronger POEs stand to benefit the most, and should be able to expand their external financing channels.

Chart 1

## Financing Environment Varies Across Different Entities



Note: Company attributes as defined by Wind. Non-LGFV SOEs include central state-owned enterprises and regional state-owned enterprises. Bonds issued include corporate bonds, company bonds, medium-term notes, short-term bonds, private placement notes, convertible bonds and transferable bonds.

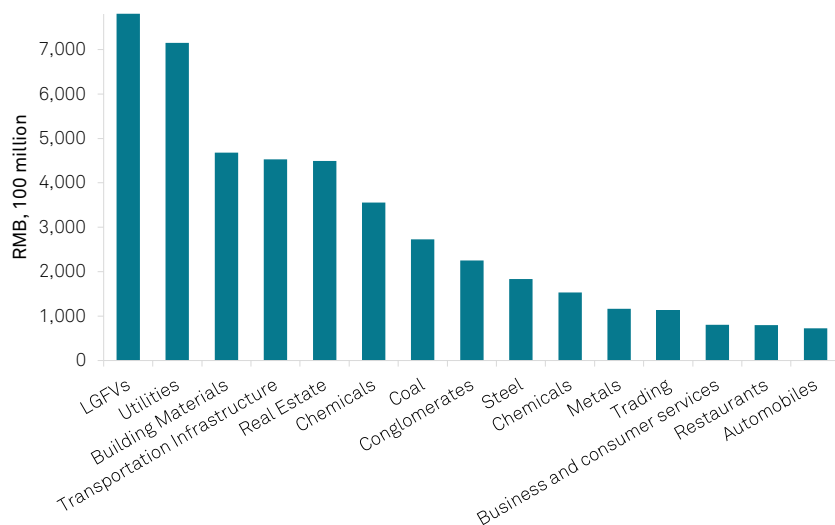
Source: Wind, S&P Global (China) Ratings.

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LGFVs, E&C, real estate, mining and other industries have significant bond maturities in the next year. These industries also generally have high leverage ratios. The impact of changes in bond issuance policies on their refinancing capacity and liquidity should be closely monitored.

Chart 2

## Overview of Corporate Bond Maturities Within Next Year



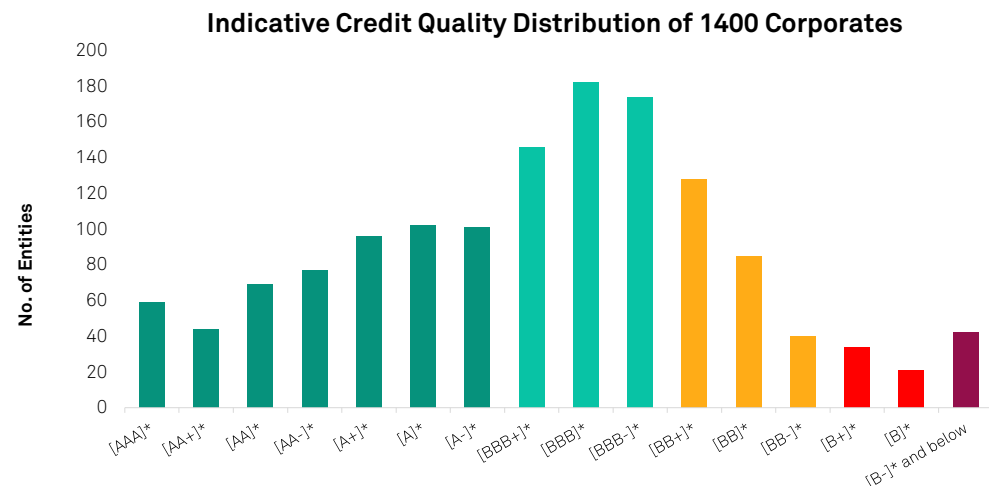
Note: Data as of Dec 1, 2022, shows bond maturities of less than one year. LGFVs as defined by Wind.

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

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Chart 3 shows the indicative issuer credit quality distribution of about 1,400 corporates, which we arrived at through a desktop analysis of public information, after applying our corporate ratings methodology framework. The sampled companies are spread across nearly 20 subsectors in a number of major industries, and their median indicative issuer credit quality is in [BBB<sub>spc</sub>]\*.

Chart 3



\*The indicative issuer 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 entity 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 on any particular entity.

Colors are defined as follows:

Jade ([AAA] to [A]): The issuer has strong capacity to meet its financial commitments.

Aqua ([BBB]): The issuer's credit quality is relatively stable in the next two years, unless there is an adverse change to industry or trading conditions.

Yellow ([BB]): The issuer's credit quality is relatively unstable, which needs heightened surveillance.

Red ([B+], [B]): The issuer is currently vulnerable and is dependent upon favorable conditions to meet its financial commitments.

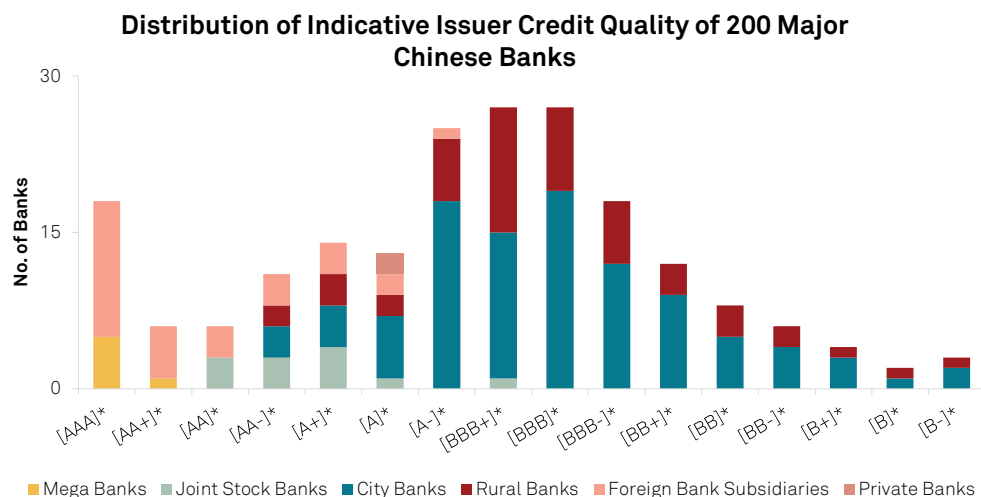
Purple ([B-] and below): The issuer is highly vulnerable.

Source: S&P Global (China) Ratings.

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The chart below shows the distribution of indicative issuer credit quality of 200 major commercial banks in China based on S&P Global (China) Ratings' financial institutions methodology. For commercial banks, our testing found that median indicative issuer credit quality is in [BBB<sub>spc</sub>+]\*, the same as the bbb+ anchor we apply for the banking industry. The chart shows that the indicative issuer credit quality of mega banks, joint-stock banks and foreign bank subsidiaries is higher, while the indicative issuer credit quality of city banks and rural banks varies to a greater extent, ranging from [AA<sub>spc</sub>]\* category to [B<sub>spc</sub>]\* category.

Chart 4



Note: \*The indicative issuer 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 entity 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 on any particular entity.

Source: S&P Global (China) Ratings.

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# Industry Outlook Overview

| Corporates                    |                                                    |                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------|----------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Industry                      | Profitability Trends<br>(Stronger, Stable, Weaker) | Financial Leverage<br>Trends (Increasing, Stable, Decreasing) | Key Takeaways                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| LGFVs                         | →                                                  | →                                                             | Further differentiation in LGFV credit quality is expected in 2023, considering the financing environment, regional land market situation and debt maturity pressure. Weaker LGFVs' liquidity pressure should intensify, and credit events related to non-standard debt defaults and bank debt restructuring may increase.                                                                                                                                                                                                         |
| Real Estate                   | ↘                                                  | ↗                                                             | We expect further differentiation in credit quality among property developers in 2023. More time is needed for a recovery in demand, amid ongoing slight downward pressure on the market. Leverage and financial risks should still maintain an upward trend in 2023. Policy supporting developer refinancing remains selective in which players it targets, with POE developers still facing default pressure.                                                                                                                    |
| Transportation Infrastructure | ↗                                                  | →                                                             | Easing COVID controls and an accelerated economic recovery should see a gradual restoration in travel demand. Traffic volumes are set to rise significantly, with industry revenue and profitability potentially returning to pre-pandemic levels. LRGs should maintain a high level of support for the industry, with overall credit quality remaining stable.                                                                                                                                                                    |
| Steel                         | →                                                  | →                                                             | Real estate weakness in 2023 should still drag on demand for steel, with the industry facing declining output and prices. Steel prices and raw material costs should both drop off, with overall profits in the industry weak after supply-side reforms. Leverage is set to stay high. Further M&A activity is expected to continue, improving industry concentration and helping credit quality remain stable.                                                                                                                    |
| Chemicals                     | ↗                                                  | →                                                             | Easing COVID controls should see downstream demand for chemicals increase significantly in 2023. Falling crude prices can help reduce raw material costs. Demand-side and cost-side tailwinds should bolster industry prosperity and profits, with credit quality remaining stable.                                                                                                                                                                                                                                                |
| Coal                          | ↘                                                  | ↗                                                             | Supply and demand tightness should ease in 2023, with the coal industry dropping from its current peak and coal prices set to fall. Long-term agreement prices have been high, and while profit space is shrinking, the outlook for profitability remains good. Leverage may increase compared with 2022, and credit quality is set to remain stable.                                                                                                                                                                              |
| Nonferrous Metals             | ↗                                                  | →                                                             | As the impact of COVID recedes in 2023, downstream demand should pick up with metal prices set to rise. Producers can still maintain decent profit margins, with overall credit quality to remain stable.                                                                                                                                                                                                                                                                                                                          |
| Thermal Power                 | ↗                                                  | ↘                                                             | Easing COVID controls and the wider economic recovery should support moderate growth of overall electricity consumption in 2023. Operating pressure on thermal power companies should ease thanks to higher on-grid thermal power prices and falling fuel costs. While capex should remain high, strong government support can stabilize credit quality in the industry.                                                                                                                                                           |
| Clean Energy                  | →                                                  | →                                                             | Rapid development is expected to continue into 2023. Capital expenditure should remain large in scale, but leverage is set to stabilize thanks to good profitability and a supportive policy environment. Thanks to players' good refinancing capacity and strong external support, credit quality is set to remain stable as a whole.                                                                                                                                                                                             |
| Engineering & Construction    | →                                                  | ↗                                                             | 2023 should see further differentiation in terms of E&C players' business scale and capital turnover efficiency, with leverage set to rise. The slower recovery of inventory and accounts receivable has led to a wider working capital shortfall among construction firms, pushing up their leverage. Large SOE E&C firms should see greater business volume thanks to strong demand for infrastructure investment and better customer quality. Such firms should continue to see growth and flexibility in terms of newly-signed |

|                                   |                                                    |                                                            | orders, and pressure to recover the "two funds" should be controllable. However, those players with greater exposure to real estate construction orders, weak project quality and poor external refinancing capacity are set to come under greater pressure business volume and working capital pressure.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------|----------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Construction Machinery            | →                                                  | ↗                                                          | 2023 should continue to see pressure from declining sales. Weak domestic demand is the biggest constraint, but strong exports can support sales. Declining industrial sales would squeeze players' EBITDA, and pressure on sales and inventory may widen working capital shortfalls, driving slight growth in debt financing and leverage. Credit quality may deteriorate for those players struggling with financial risks, but those companies that operate on a global scale may ride out the cyclical downturn thanks to their more diverse revenue sources.                                                                                                                                                                                        |
| Auto Manufacturing                | ↘                                                  | →                                                          | In 2023, NEV sales and automobile exports should maintain growth, counterbalancing declining fuel vehicle sales to some extent. Passenger vehicle sales are likely to stay at a similar level to 2022. High raw material costs, intensified NEV competition and declining subsidies may weigh on profitability, but overall low leverage ratios and abundant cash flow in the industry support players' resilience, with credit quality remaining stable.                                                                                                                                                                                                                                                                                               |
| Airlines                          | ↗                                                  | →                                                          | Airlines' cash flows are expected to rebound as COVID controls are removed. However, the rebound may not be enough to address the leverage pile accumulated in the past few years, with a long timeframe needed for deleveraging in the sector. Strong external support can stabilize credit quality.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Financial Institutions</b>     |                                                    |                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Industry                          | Profitability Trends<br>(Stronger, Stable, Weaker) | Financial Leverage Trends (Increasing, Stable, Decreasing) | Key Takeaways                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Commercial banks                  | →                                                  | →                                                          | Overall credit quality is stable. Mega banks, most joint-stock banks and some high-quality small and medium-sized banks can maintain good profitability and stable capitalization. However, credit quality differentiation among small and medium-sized banks should intensify. In light of real estate weakness and the impact of COVID, certain small and medium-sized banks have seen deteriorating asset quality, impacting on their capital resilience and leading to urgent demand for capital support. Government support is key to mitigating default risks among high-risk banks.                                                                                                                                                              |
| Asset Management Companies (AMCs) | ↘                                                  | ↗                                                          | Amid pressure on real estate, non-performing asset management companies face capital and profit headwinds, amid pressure on stand-alone credit quality. The high default rate in real estate has provided AMCs with more business opportunities as they participate in the disposal of non-performing developers. On the whole, we believe the negative impact of the real estate crisis on AMCs outweighs the positives. Growing bad debts weakens their capital resilience, and capital pressure limits the ability of AMCs to purchase real estate non-performing assets on a large scale. Extraordinary central government support available to the Big Four AMCs, which we expect to remain unchanged, continues to underpin their credit quality. |
| Commercial Leasing Companies      | →                                                  | →                                                          | Large and medium-sized commercial leasing issuers maintained stable asset quality and leverage during the epidemic, with stand-alone credit quality remaining stable. Most major commercial leasing companies maintained good credit quality, with parent groups' willingness and ability to support staying stable. We therefore expect commercial leasing companies' issuer credit quality to remain stable.                                                                                                                                                                                                                                                                                                                                          |
| Auto Finance Companies            | →                                                  | →                                                          | Considering their good asset quality, adequate capital and stable profitability, stand-alone credit quality in the auto finance industry should remain stable.<br><br>In terms of group support, compared with the height of the pandemic, most automakers' situations have since improved, and capacity to support auto                                                                                                                                                                                                                                                                                                                                                                                                                                |

finance subsidiaries is stronger. We expect auto finance companies' issuer credit quality to remain stable.

#### Structured Finance

| Industry                        | Credit Quality of Underlying Assets<br>(Positive, Stable, Negative) | Credit Performance of Current Transactions<br>(Positive, Stable, Negative) | Key Takeaways                                                                                                                                                                                                                                                                                      |
|---------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RMBS                            | →                                                                   | →                                                                          | Overall credit quality of underlying assets and current RMBS products' credit performance should remain stable in 2023. Future RMBS issuance depends on relevant macro policies, better balance sheet management among commercial banks and any innovative changes in RMBS transaction structures. |
| Auto ABS                        | →                                                                   | →                                                                          | In 2023, asset credit quality and product performance of current auto ABS products should remain stable, but the asset performance of various types of originators may see further divergence.                                                                                                     |
| Non-performing ABS Transactions | →                                                                   | →                                                                          | Performance should stay stable in 2023, considering transactions' sufficient overcollateralization and short tenors. Asset recovery may see further differentiation in terms of asset type, and there may be some pressure on recovery rates.                                                      |

## Corporates

**Differentiation Continued in LGFV Net Financing Over 2022**

| Province       | Jan-Nov 2021 | Jan-Nov 2022 |
|----------------|--------------|--------------|
| Gansu          | -100         | -100         |
| Guizhou        | 0            | 0            |
| Yunnan         | 0            | 0            |
| Jilin          | 0            | 0            |
| Inner Mongolia | 0            | 0            |
| Qinghai        | -100         | 0            |
| Liaoning       | -100         | 0            |
| Heilongjiang   | 0            | 0            |
| Hainan         | 0            | 0            |
| Guangxi        | 300          | 0            |
| Ningxia        | 0            | 0            |
| Tibet          | -600         | 0            |
| Tianjin        | 100          | 0            |
| Xinjiang       | 0            | 0            |
| Shanxi         | 0            | 0            |
| Beijing        | -100         | 0            |
| Hebei          | 0            | 200          |
| Shaanxi        | 100          | 0            |
| Chongqing      | 800          | 0            |
| Shanghai       | 400          | 0            |
| Hunan          | 1000         | 0            |
| Anhui          | 600          | 0            |
| Guangdong      | 900          | 0            |
| Fujian         | 600          | 0            |
| Jiangxi        | 1200         | 0            |
| Hubei          | 600          | 0            |
| Henan          | 800          | 0            |
| Sichuan        | 1500         | 0            |
| Jiangsu        | 5000         | 0            |
| Shandong       | 2500         | 0            |
| Zhejiang       | 4800         | 0            |



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## ANALYSTS

Beijing  
lei.wang@spgchinaratings.cn

Beijing  
yi.gong@spgchinaratings.cn

Certain regions may see fiscal revenue come under pressure amid dwindling land transfer activity. This would affect LRGs' potential support capacity for LGFVs. We note that fiscal revenues have generally declined over 2022, following the large-scale implementation of tax rebate policy and the downturn of the land market. Land transfer revenues in Jilin, Tianjin, Heilongjiang, Liaoning, Chongqing, Gansu and Guizhou have declined by more than 50%, highlighting regional fiscal pressure.

LGFV financing policy should stay tight, with little signs of optimism for the financing environment in indebted and fiscally weak regions. In 2022, the central government maintained strict oversight of LRG hidden debts. The Ministry of Finance, the CBIRC and other regulatory bodies issued a series of policies to mitigate hidden debt risks, which would impact on LGFVs' access to financing.

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2023, given the central government's continued oversight of LRG hidden debts is not expected to change. Differentiation of fiscal strength also sees investment funds tend towards fiscally stronger regions, ultimately widening the gap in LGFVs' access to financing.

2023 will see significant LGFV bond maturities and exercise options in some regions, and we expect liquidity pressure in Yunnan, Guizhou, Gansu and Tianjin to heighten, given the ongoing differentiation of the refinancing environment and downward fiscal pressure.

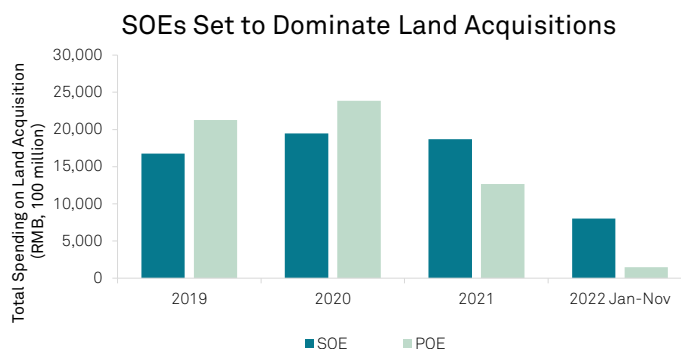
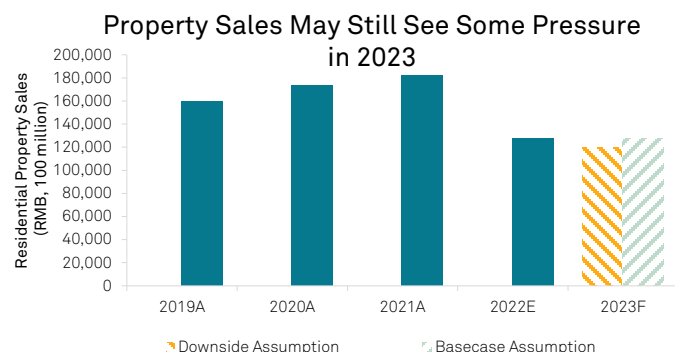
## Future Risk Factors

- Land transfer revenue is under pressure, potentially weakening LRGs' potential support capacity and heightening liquidity pressure for LGFVs in weaker regions.
- Policies targeting regional hidden debts and LGFV financing may impact on LGFVs' access to refinancing.

# Real Estate

## Corporates

More time needed for demand to recover. Annual sales may decline by about 5%



Note: In the left chart, E represents estimate, and F represents forecast. In the left chart, data included for about 260 developers. Sample selected based on availability of land acquisition data. Source: National Bureau of Statistics, public information, DM, Wind. Copyright © 2023 by S&P Ratings (China) Co., Ltd. All rights reserved.

## Outlook

Property developers' credit quality may see greater differentiation in 2023. Demand needs more time to recover, with the market still under some downward pressure. We expect leverage and financial risks to continue increasing in 2023. Refinancing policy remains selective in which developers receive support, and sporadic defaults should still occur.

In the long run, "housing is not for speculation" should remain the overarching regulatory stance for real estate. We expect sales to follow an "L-shape" trend. Real estate is an important component of China's economy, and a raft of policies introduced in 2022 Q4 reflect the central government's determination to promote the sector's steady development while maintaining market stability.

New policies are, in our view, not stimulus measures but targeted at ensuring delivery of projects and helping high-quality developers buy time to resolve any problems. Long-term demand for residential housing depends on regional population growth, economic development and per capita income. Considering China's current population trends and the shift in economic strategy from rapid growth to high-quality development, we expect an "L-shape" trend in the long run for residential housing sales. The market is unlikely to return to previous highs where it was worth some 17-18 trillion RMB.

We expect property sales to decline by about 5% in 2023. In 2022, sales reflected the market bottoming out, and we don't expect any further significant decline in sales for 2023. Prospects for the industry should continue to improve in 2023, with COVID's impact waning and policies in place to support high-quality developers. However, a post-COVID recovery in income levels won't be achieved overnight, and the real estate recovery remains exposed to wider economic development, disposable incomes and homebuyers' expectations.

We expect nationwide 2022 Q4 sales to remain sluggish, prior to an upturn in market demand. Our baseline assumption of COVID's impact dissipating by April 2023 would see demand gradually recover from July onwards. 2023 sales would basically be the same as 2022. If market demand does not recover until November 2023, sales would likely decline by 5%.

Given the widespread policy push to ensure housing projects are delivered, real estate construction and installation investment in 2023 shouldn't see shortfalls on the same scale as in 2022. While fewer new

### ANALYSTS

#### Renyuan Zhang

Beijing  
Renyuan.zhang@spgchinaratings.cn

#### Jin Wang

Beijing  
Jin.wang@spgchinaratings.cn

#### Yingxue Ren

Beijing  
Yingxue.ren@spgchinaratings.cn

construction projects are expected, impacting on construction and installation investment, the push to complete ongoing projects should provide such segments with some support.

There has been a significant decline in new projects in the past 12-18 months, dragging further on construction and installation investment. However, in our view recent financing policies should help resolve existing problems around ongoing projects. The six mega banks and a number of property developers have agreed on credit facilities of about 2 trillion RMB. This should help the industry complete and move on with delayed and ongoing construction projects. Land acquisitions in 2023 should be unchanged from 2022, mainly due to the downturn in industry sales and low appetite from developers for new investments.

Leverage and financial risks among developers should still see an upward trend in 2023. This is mainly due to declining operating cash flows outstripping efforts to reduce debts. At the same time, the sector's credit landscape should see a structural transformation on three fronts.

First, state-owned developers are set to become the leading players in the industry. Given their stable refinancing capacity, SOE developers dominated land acquisitions in 2022, replenishing their land banks and bolstering their development potential.

Second, market demand should differentiate further among different tiers of city, with greater pressure in lower-tier regions.

Third, private developers should see further credit quality differentiation. Many POE developers in low-tier cities may come under greater pressure to sell off inventory, affecting their long-term performance.

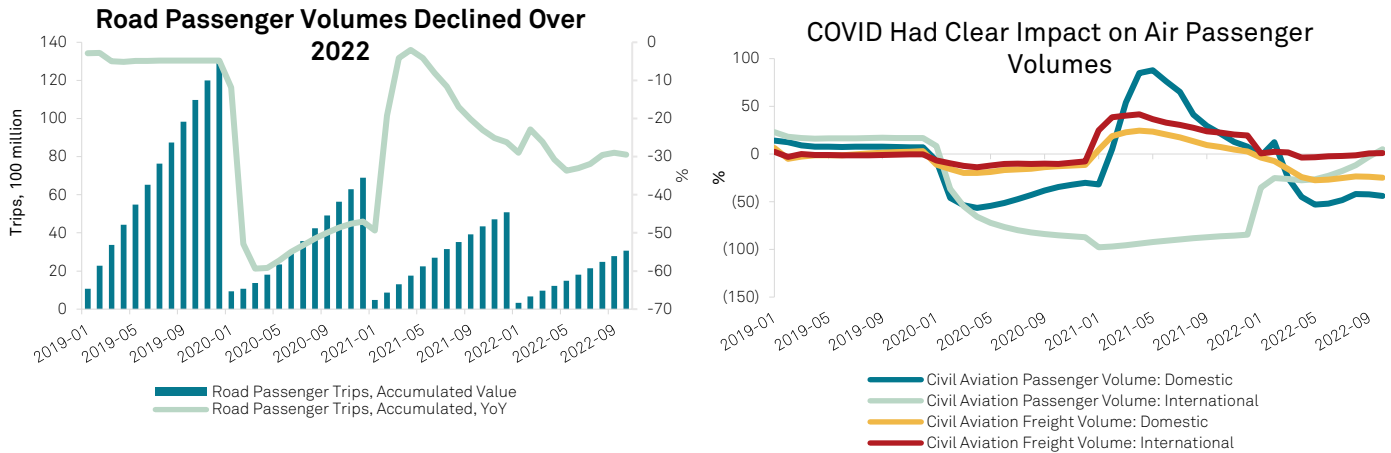
From the perspective of refinancing, we believe the scope of recent policies is not unlimited and unstandardized. However, their implementation would be delivered in a market-oriented, open and transparent way, focusing on supporting developers with sound governance structures that are well-qualified, focused on their main business and, despite occasional liquidity pressure, have overall healthy financial positions.

## Future Risk Factors

- Players' asset quality should be monitored closely. Many POE developers in lower-tier cities may face greater pressure to sell off inventory housing, affecting their long-term business performance.
- Sporadic defaults are set to continue. Despite new policies launched to help POE developers' refinance, the measures are selective in who they support. Developers that don't fall within the scope of these policies may face greater default pressure. Default risk remains for developers with insufficient coverage of cash to upcoming maturities. There may be extreme scenarios where, considering ongoing supervision of pre-sale funds, cash coverage is insufficient at the parent company level.

# Transportation Infrastructure

Corporates



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

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## Outlook

As COVID measures are stepped down, we expect an accelerated economic recovery, with people's willingness to travel gradually recovering. Traffic volume should rebound in 2023, with companies' revenue and profitability returning to pre-pandemic levels. LRGs would maintain high support, and overall credit quality should remain stable.

We note that COVID measures over January-October 2022 saw domestic highway traffic volume decline further YoY. Domestic civil aviation passenger volumes dropped significantly YoY, while international air passenger volumes improved YoY. Port cargo throughput was basically flat, with minimal impact from COVID.

Expressway industry: Traffic volumes should rebound in 2023 with the easing of COVID measures. Revenue and cash flow should see a strong recovery. While capex should remain significant going forward, keeping leverage at a higher level, we expect strong LRG support to help players maintain good access to refinancing. Credit quality should remain stable.

Airport industry: The airport industry is greatly affected by the epidemic prevention and control policies. We expect that the domestic and international passenger demand in 2023 will be significantly improved compared with 2022, and the revenue and profits of airport enterprises will gradually improve. Benefiting from the strong support of local governments, the refinancing capacity of enterprises is generally good, and the credit quality will remain stable.

Port industry: We expect that with the continuation of the conflict between Russia and Ukraine and the US interest rate hike to curb consumption, the global demand for foreign trade in China will weaken year on year in 2023, leading to a small decline in domestic port cargo throughput. However, the port enterprises as a whole are relatively less affected by the epidemic, and their profitability is relatively good. At the same time, thanks to the strong support of local governments, the credit quality will remain stable.

## Future Risk Factors

- COVID uncertainty may have an impact on airports and port enterprises, with the latter also exposed to geopolitical risks.

## ANALYSTS

Lei Wang

Beijing

lei.wang@spgchinaratings.cn

**Wei Chen**

Beijing

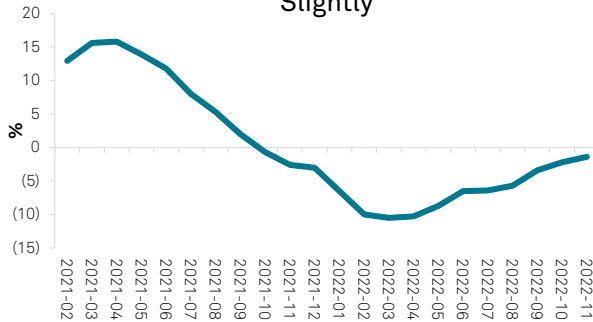
wei.chen@spgchinaratings.cn

# Steel

## Corporates

### Profit pressure amid weak demand

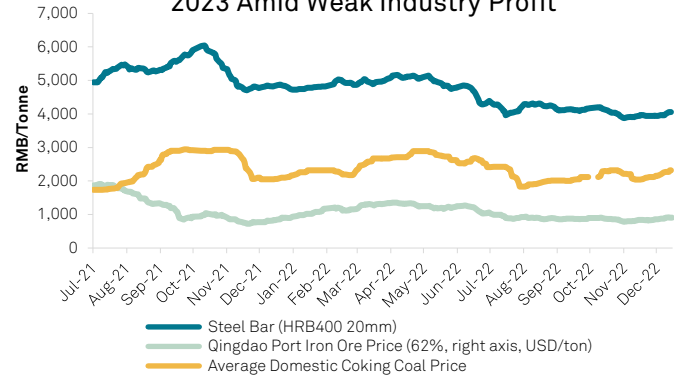
2023 Steel Production May Decrease Slightly



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

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Steel and Raw Material Prices to Recede in 2023 Amid Weak Industry Profit



#### ANALYSTS

##### Lei Wang

Beijing

Lei.wang@spgchinaratings.cn

##### Di Jiao

Beijing

Di.jiao@spgchinaratings.cn

## Outlook

We expect 2023 to see fairly weak business performance in the steel industry. Steel prices and raw material costs are receding, and profitability should be at its lowest level since supply-side reforms. Leverage should remain high. M&A activity is set to continue with further improvements to industry concentration, and credit quality should stay stable.

2023 should see drops in both steel output and steel prices. While easing COVID restrictions should help boost downstream consumption, demand for steel should stay under pressure. Real estate weakness is set to remain a drag on demand, and manufacturing industries such as automobiles, machinery and household appliances are also not expected to see a significant rebound in growth.

While infrastructure investment should still provide some support for steel demand, it is unlikely to act as a major driver of growth. On the supply side, we expect continued contraction. Raw steel output is expected to decline by about 2% in 2023. Controls on production capacity and output and pressure on steel mill profits are set to lead to production adjustments. Affected by the downturn in demand, steel prices may decline further compared with 2022, with average prices expected to be just over 4000 RMB/tonne.

With the decline of industrial demand, raw material costs (e.g. iron ore and coking coal) should also recede. Industry profits should remain low with high leverage in the industry. However, credit quality should remain stable. In recent years, steel has seen significant M&A activity. We expect industry concentration to continue rising, which should see top players consolidate their competitive positions and strengthen the bargaining power of the industry as a whole. On the other hand, steel mills' capital reserves have significantly improved after supply-side reform, which should strengthen resilience against cyclical fluctuations.

## Future Risk Factors

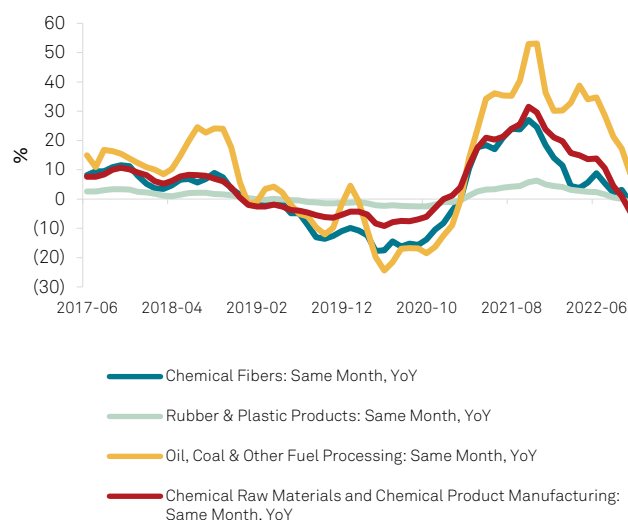
- Where demand falls more than expected, steel prices would drop by a higher level, leading to greater pressure on profit and cash flow.
- A substantial increase in capex and M&A spending may raise leverage and increase financial risk.

# Chemicals

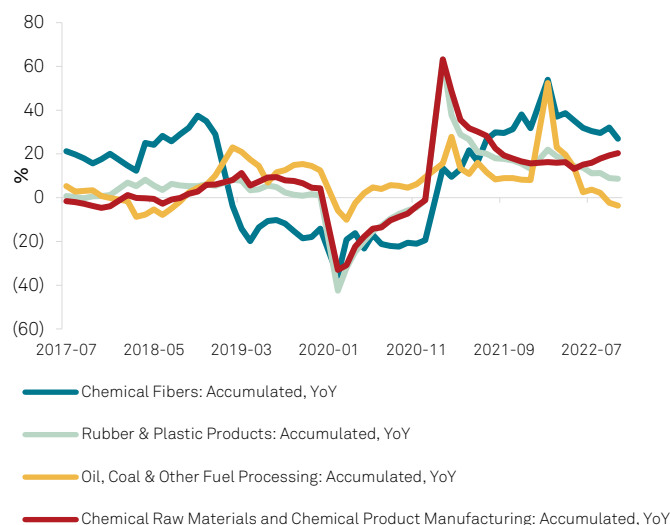
## Corporates

Good prospects amid demand- and cost-side tailwinds

2023 Chemicals PPI Growth May Slow



Chemicals FAI May Increase in 2023



Source: Wind, National Bureau of Statistics.

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## Outlook

2022 saw demand for chemicals shrink amid geopolitical tensions and the return of COVID in China. Costs rose and profits fell significantly. For 2023, positives on the demand side and cost side should improve the prospects for the industry, boosting profits YoY and helping credit quality remain stable.

As COVID controls ease and the economy undergoes an accelerated recovery, downstream demand for chemicals should increase significantly. Industry demand is expected to improve significantly from the previous year.

On the cost side, high oil and energy prices amid the Russia-Ukraine conflict should fall back in 2023. Declining raw material costs should help chemical producers restore their profitability.

Top chemical producers' good layouts in terms of new capacity should further enhance industry concentration. In 2022, fixed asset investment in the chemical industry grew significantly, and top players launched large-scale projects. 2023 should see China continue playing a major role in global supply chains. The sector should still have significant capex as top players expand capacity, with industry concentration further improving.

## Future Risk Factors

- Crude oil, natural gas and other raw material prices may have an impact on chemical producers' profitability.
- Significant capex may push up leverage and elevate financial risks in the industry.

### ANALYSTS

#### Lei Wang

Beijing

Lei.wang@spgchinaratings.cn

#### Xiao Zhang

Beijing

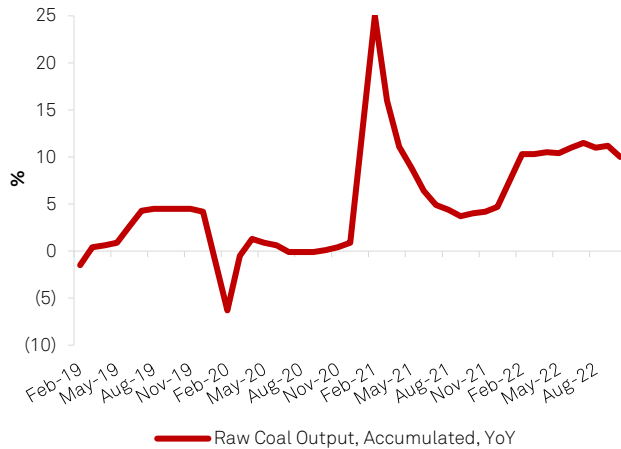
Xiao.zhang@spgchinaratings.cn

# Coal

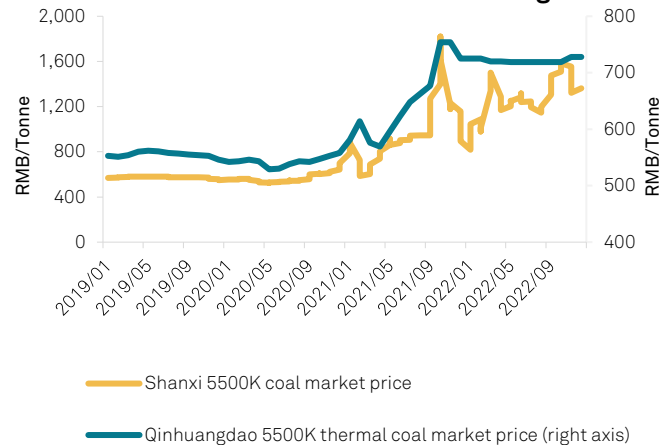
## Corporates

Profit opportunities remain as boom recedes

2023 May See Slight Rise in Coal Output



2023 Coal Prices Set to Fall, But Long-Term Contract Prices to Remain High



Source: Wind, National Bureau of Statistics, S&P Global (China) Ratings.  
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## Outlook

In 2023, coal supply and demand patterns should balance out as the industry boom recedes, leading to a dip in coal prices. While producers have secured high long-term agreement prices, profit space is shrinking but overall profits should remain healthy. Leverage may increase from 2022, but credit quality is set to remain stable.

Supply and demand tightness should ease in 2023. Policies to ensure supplies should remain in place. With the release of advanced production capacity, raw coal output may increase by 1% - 2% in 2023. Since 2021 Q4, China has introduced a raft of coal supply guarantee measures. From January to October 2022, raw coal output increased by 10% YoY, and national thermal coal reserves have remained at a good level. Coal imports have provided some supply elasticity amid recession risks overseas and changes to domestic COVID policy.

Efforts to engineer a rapid increase in coal production in 2022 may have led to increasing mining safety incidents. As focus shifts back to ensuring safety measures are implemented, supply may slow again. Another drag on supply is ongoing efforts to remove inefficient production capacity.

On the demand side, the degree to which downstream demand recovers hinges on the post-COVID economic recovery. Thermal power continues, in our view, to play an important role in ensuring electricity supply. Thermal power should maintain steady growth, supporting demand for coal.

2023 should see the industry recede from the highs seen in 2022. Market coal prices are set to decline significantly. Long-term price should stay at a high level of 670-700 RMB, with players expected to maintain good profit margins. While producers have been able to accumulate capital through 2022, leverage is set to rise in 2023 as industry profits drop off. We note that coal producers' financial risks are generally high.

In 2022, despite the strong industry performance, there was little reduction in debt. Should prices fall off significantly and the financing environment tighten, certain coal producers may see their

### ANALYSTS

#### Lei Wang

Beijing  
lei.wang@spgchinaratings.cn

#### Di Jiao

Beijing  
di.jiao@spgchinaratings.cn

credit quality weaken. Some producers with heavy debt burdens in Shanxi and Shaanxi have taken on more debt during the industry boom. This may further expose their leverage levels to cyclical changes. Those companies that proactively reduced debt should have better resilience through the cycle.

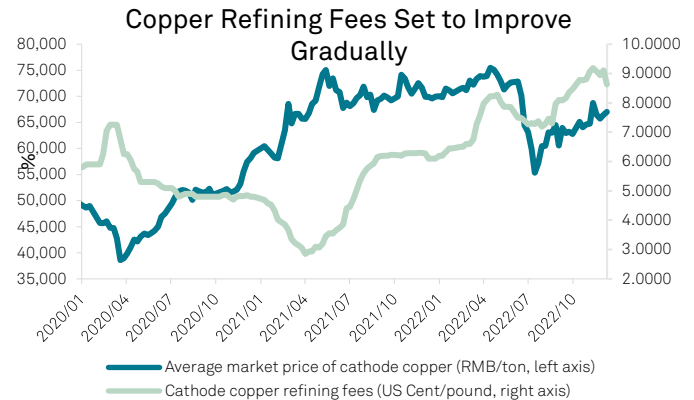
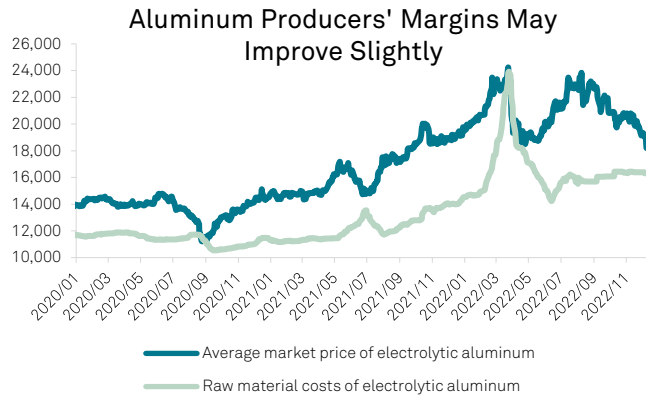
## Future Risk Factors

- Output may recover rapidly with lower-than-expected demand, resulting in a rapid decline of coal prices and reducing industry profitability.
- Frequent mining accidents may have an impact on coal producers' operating efficiency.

# Nonferrous Metals

Corporates

Stable profitability is conducive to maintaining credit quality



Note: The cost of raw materials for electrolytic aluminum in the left chart is calculated according to the cost components of main raw materials in the general production of electrolytic aluminum and their average market price.  
Source: Wind, S&P Global (China) Ratings.

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## Outlook

Easing COVID restrictions and waning impact from the pandemic should see downstream demand for metals recover in 2023. Prices should rise, with producers maintaining healthy profit margins and overall stable credit quality.

2022 saw COVID and the Russia-Ukraine conflict have an impact on downstream demand. Prices of various metals dipped, with the industry's overall performance declining from the previous year.

In 2023, easing COVID restrictions and accelerated economic activity should see a gradual recovery in the non-ferrous metals industry, driven by a return to growth in downstream industries. For aluminum, we expect recent policies in support of the real estate industry to lead to better demand among developers. At the same time, the demand for new energy vehicles, green energy and other industries will continue to expand, and the overall demand for aluminum downstream will maintain stable growth. At the same time, under the restriction of the Ministry of Industry and Information Technology on total capacity and the influence of the policy of "carbon peaking and carbon neutralization", the aluminum supply increment is still very limited. The tight market supply and demand pattern will help the aluminum price recover slightly. The average price of Shanghai aluminum is expected to remain in the price range of 18,000-20,000 RMB/tonne.

In terms of copper, we expect that the recovery of power grid infrastructure construction and residential consumption in 2023 will drive the growth of refined copper demand. At the same time, new overseas mines in Asia, Africa and other regions will start to operate smoothly. Copper supply is expected to continue to grow. Smelting and processing fees for copper smelting enterprises are expected to remain at a high level. Smelting and processing fees for the whole year will increase compared with the previous year.

2023 should see improved profitability as industry prospects improve, with credit quality remaining stable. Aluminum producers can benefit from falling raw material costs and easing supply and demand tightness. Profit margins should improve slightly. Some enterprises may have surplus funds that can be used to reduce debt, helping maintain credit quality at a good level.

Copper producers should see improved profitability as smelting fees continue to increase. This again can help stabilize credit quality.

## Future Risk Factors

- Certain players' capital expenditure and M&A spending has increased significantly, elevating financial risk and liquidity pressure.

### ANALYSTS

**Lei Wang**

Beijing

lei.wang@spgchinaratings.cn

**Yixin Cao**

Beijing

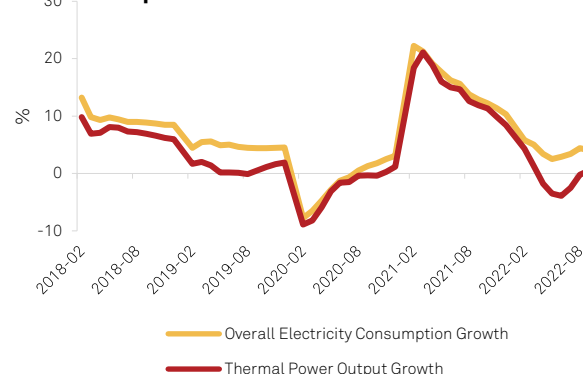
yixin.cao@spgchinaratings.cn

# Thermal Power

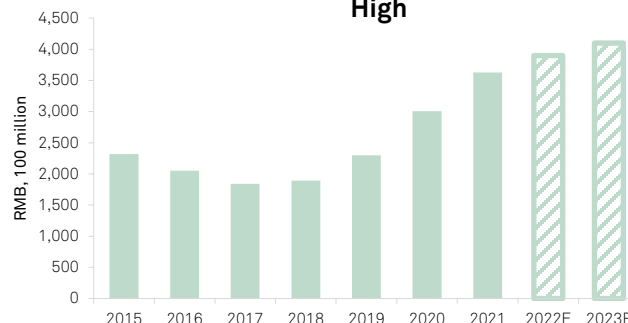
Corporates

Operational pressure to ease amid ongoing capex; external support still strong

**Overall Electricity Consumption Expected to Grow 4-6% in 2023**



**Big Four Power Groups' Capex to Remain High**



Note: The four major power groups in the right chart are Huadian Corporation, Huaneng Group, State Power Investment Corporation and Datang Corporation; E-Estimate, F-Forecast.  
Source: Wind, National Bureau of Statistics, annual company reports, S&P Global (China) Ratings.  
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## Outlook

We expect 2023 to see operating pressure on thermal power generators to ease, with capex remaining high. Strong government support should help credit quality in the industry remain stable.

Thermal power is expected to continue playing an important role in China's energy mix, with thermal power generation increasing steadily in 2023. In terms of demand, easing COVID controls and the economic recovery should see moderate growth of around 4-6% in overall electricity consumption. On the supply side, we expect accelerated approvals of new coal capacity to increase the scope of thermal power supply. To secure energy supply, 2022 saw Guangdong, Zhejiang, Jiangsu, Anhui and other provinces restart or add new coal capacities, amid rapid growth in newly-installed thermal power capacity.

On-grid thermal power prices should stay high, and power generators' profitability should recover as fuel costs fall. On-grid tariff reforms have significantly improved power generators' incomes. In 2022, on-grid thermal power prices increased by 15% - 20% from 2021.

The rise in industry profits have provided some support to thermal power on-grid tariffs. On the cost side, tight supply and demand patterns should ease off as market prices and long-term agreement prices recede. Declining coal prices should see thermal power generators' profitability improve, but continue to remain weaker than in 2020.

Thermal power generators are set to maintain high capex on new energy capacity. This may add to debt burdens but the government and financial institutions should maintain strong support. At the same time, efforts by players to diversify their energy mix can help stabilize profitability.

### ANALYSTS

#### Lei Wang

Beijing  
lei.wang@spgchinaratings.cn

#### Di Jiao

Beijing  
di.jiao@spgchinaratings.cn

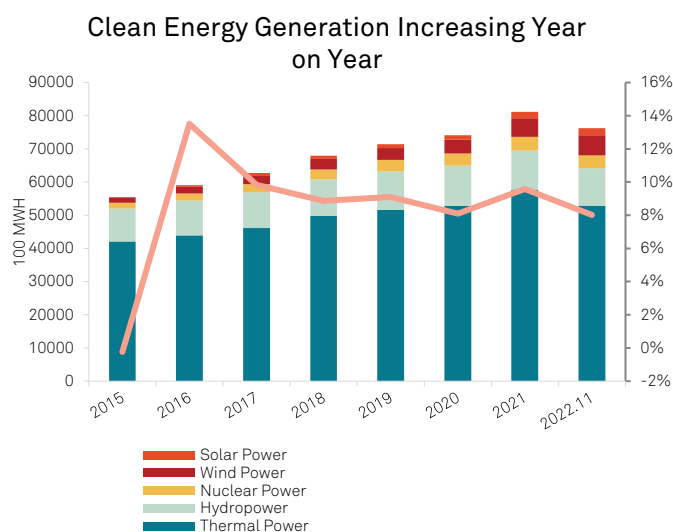
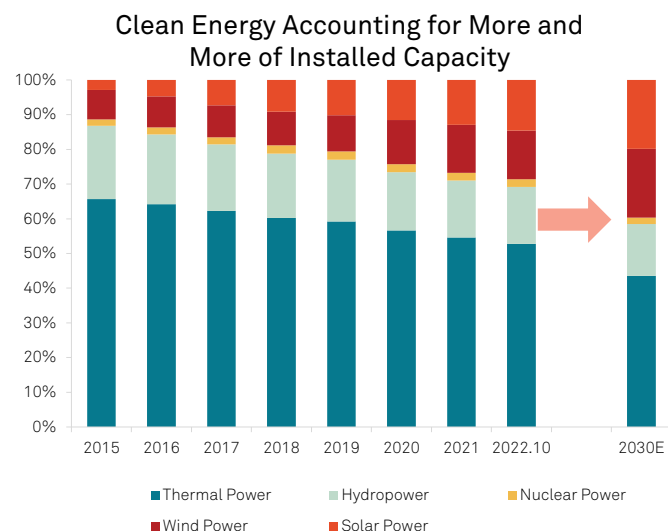
## Future Risk Factors

- High coal prices may last for an extended period, making it difficult for enterprises to improve their profitability. Financial pressure may rise significantly as a result.
- Increased new energy consumption may further reduce demand for thermal power, resulting in a decline in thermal power utilization hours.

# Clean Energy

Corporates

Rapid growth amid increasing capex, but support remains strong



Note: The data of 2030 in the left chart are the predicted ones according to the Action Plan for Carbon Peak before 2030.

Source: National Energy Administration, S&P Global (China) Ratings.  
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## Outlook

We expect the clean energy industry to maintain rapid development in 2023. Players should continue with large-scale capex. However, thanks to strong policy support and profitability, along with stable leverage, strong refinancing capacity and a high degree of external support, credit quality should remain stable.

2023 should see China continue with its carbon goals and efforts to ensure energy security. We expect continued support for new clean energy projects and development of installed capacity and power generation. The National Energy Administration targets having renewables represent 40% of China's energy mix by 2030. By the end of 2022, we expect renewables to represent around 30%, leaving large room for development.

Profitability should stay relatively stable in 2023. New energy projects in 2023 are set to enter the price parity stage with the removal of on-grid tariff subsidies for new renewable projects. However, declining power station construction costs and the liberalization of coal prices, along with deepened support for market-oriented tariffs and fewer caps in the industry, clean energy utilization hours should increase, with profits remaining at a considerable level. The removal of subsidies should also help players improve operating efficiency.

As COVID controls ease, we expect more investment activity in the industry in 2023. Capex should stay high, and while debt levels may rise, leverage should remain stable thanks to the good policy environment and healthy profit levels. In addition, most players are SOEs, with strong refinancing capacity and strong external support.

### ANALYSTS

#### Lei Wang

Beijing  
lei.wang@spgchinaratings.cn

#### Zhen Huang

Beijing  
zhen.huang@spgchinaratings.cn

## Future Risk Factors

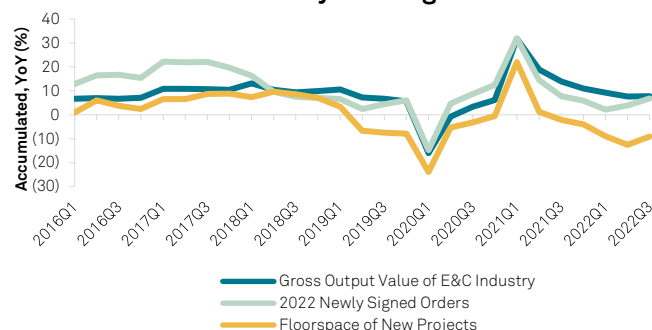
- High capital expenditure increases players' financial risk.
- High amount of new energy subsidies that have not been released may increase pressure on players' working capital.

# Engineering & Construction

Corporates

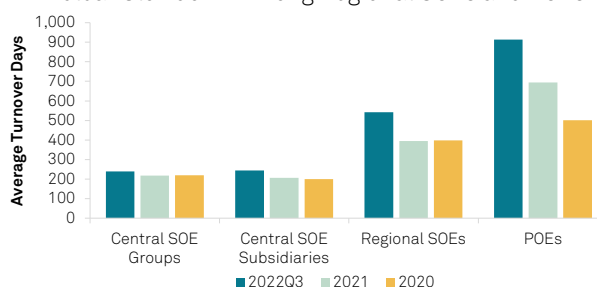
Further differentiation expected

### E&C Demand May See Slight Increase



### E&C Industry Turnover Slowed in 2022

Clear Slowdown Among Regional SOEs and POEs



Note: Turnover in right chart refers to accounts receivable, inventory and contract assets.

Source: Wind, National Bureau of Statistics, S&amp;P Global (China) Ratings.

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## Outlook

2023 may see further differentiation in the engineering & construction (E&C) industry in terms of business scale and capital turnover efficiency. Large SOE E&C players stand to benefit from strong demand for infrastructure investment and better customer quality. Newly-signed orders are still resilient, and should increase further. Pressure to recover the "two funds" (from inventories and accounts receivable) is relatively controllable. However, those players with high exposure to housing-related construction orders, weak project quality and poor external refinancing capacity would face greater pressure on business volume and working capital.

Due to small growth in infrastructure investment, the total output of the E&C industry in 2023 is set to see growth of around 10%, given the low base of 2022. However, an uptick in industry orders is not necessarily going to benefit all players. We expect further differentiation between private E&C firms and large SOE construction companies in terms of new orders. For private companies, business sustainability should see further pressure.

The real estate downturn should see a slight contraction in demand for private E&C firms engaged in housing construction, building and decoration and other related segments. At the same time, SOEs are set to benefit from increasing new orders in major infrastructure projects such as railways, highways, hydropower and new energy.

In the next year, regional governments and real estate firms all face a tight financial situation. Pressure on the "two funds" should increase in the E&C sector. As a result, the sector's working capital gap may increase, driving up financing demand and leverage. At the same time, slow turnover of the "two funds" would impact on some players' long-term prospects.

We expect policies to support refinancing in the real estate sector to ease some cash flow pressure among higher-quality developers. This should help ease the payment situation for E&C companies working to deliver on unfinished real estate projects. However, given many developers may not benefit from this policy, any easing of cash flow pressure may be limited. E&C firms with significant exposures to real estate may continue to face high pressure should they struggle to carry out orders in hand and lack funds to take on new projects.

### ANALYSTS

#### Renyuan Zhang

Beijing

Renyuan.zhang@spgchinaratings.cn

#### Yufei Wang

Beijing

Yufei.wang@spgchinaratings.cn

We expect E&C profit margins to remain stable in 2023, with EBITDA margins at around 6%. We believe E&C firms can somewhat mitigate against fluctuating building material costs through contract price clauses.

## Future Risk Factors

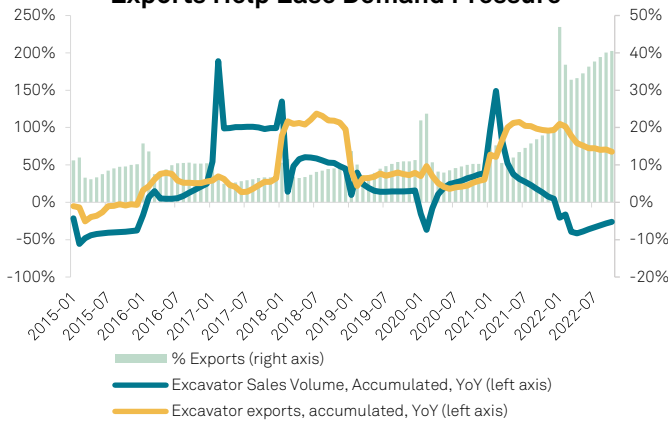
- Construction enterprises in two categories may face higher risk pressure. Enterprises in the first category are those with slow recovery of the "two funds". These enterprises have low operating efficiency and working capital outflows due to slow recovery of the "two funds". Other E&C firms facing potential pressure have deep ties with the real estate sector. These enterprises either have high customer concentration due to weak market competitiveness or serve as the financing channels for real estate enterprises in their group.
- Operations of and payment collection for PPP projects should be monitored closely. As overall PPP investment enters its second phase, construction enterprises may focus more on the follow-up management of invested projects. We believe that initial PPP investments were generally too aggressive. Construction enterprises that made such investments in order to stimulate short-term orders and have poor overall investment quality in projects could face higher payment collection pressure and debt repayment pressure.

# Construction Machinery

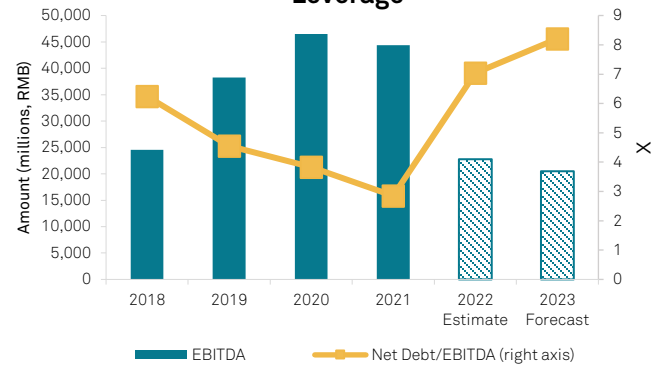
Corporates

Downward pressure remains with leverage set to rise

**Excavator Sales Continue to Shrink as Exports Help Ease Demand Pressure**



**Sharp Profit Decline Has Led to Increased Leverage**



Note: The right chart includes data for 10 construction machinery companies. Debt and EBITDA are calculated according to public information.

Source: China Construction Machinery Association, Wind, S&P Global (China) Ratings  
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## Outlook

We expect credit quality in the construction machinery industry to maintain a downward trend in 2023. Sluggish industry sales are weighing on profits amid growing leverage. Sales on credit through channels such as financial leasing may further amplify contingent liability risk in the industry amid the current downturn.

We expect sales to remain under pressure in 2023 amid market saturation and demand for upgrades largely fulfilled. Our research shows that excavator operating hours have consistently fallen on a month-on-month basis since April 2021, reflecting oversupply across the market. While construction volume should improve in 2023, any increase in construction work would likely only restore operating hours to previous levels, with no significant uptick in demand for new machinery.

Demand for machinery to upgrade outdated capacity or meet environmental standards peaked in 2021, with excessive purchases made in some cases. If machinery operating hours remain at a low level, we expect demand to remain weak going forward.

Exports may provide some relief by alleviating the decline in sales at this stage of the cycle. Taking excavators as an example, if export growth remains at 20% in 2023, the overall sales decline may narrow to about 10%. If exports this year are unchanged from 2022, overall sales would fall by about 20%.

We expect leverage to rise further in 2023. During the last industry boom, improvements to leverage were mainly driven by expanding profits rather than active efforts to lower debt burdens. With profits in decline, leverage ratios are set to rise again. Declining sales in 2023 would see EBITDA shrink, with pressure on sales and inventory further widening the shortfall in players' working capital. This may see further demand for debt financing, leading to higher leverage.

We believe that sales on credit through channels such as financial leasing may create more repurchase obligations or bad debt pressure in the downward cycle, further increasing leverage levels. The industry downturn is also set to see a deterioration in customers' cashflow situations. Delayed lease payments may increase, leading to increased repurchases by construction machinery manufacturers.

### ANALYSTS

#### Renyuan Zhang

Beijing  
Renyuan.zhang@spgchinaratings.cn

#### Yingxue Ren

Beijing  
yingxue.ren@spgchinaratings.cn

We expect the current downward phase of the cycle to be prolonged and see major adjustments in the sector. There would be significant impact on profits and credit quality of some enterprises may be weakened due to rising financial risks. Overseas demand may gradually ease pressure from declining sales, with players that have strong global networks likely to mitigate the cyclical downward pressure thanks to their more diversified income sources.

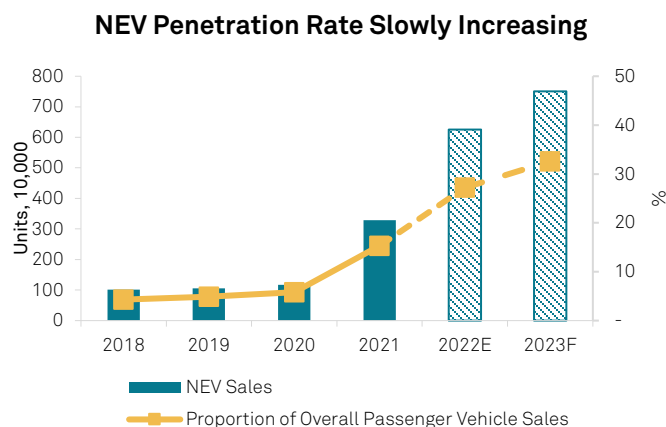
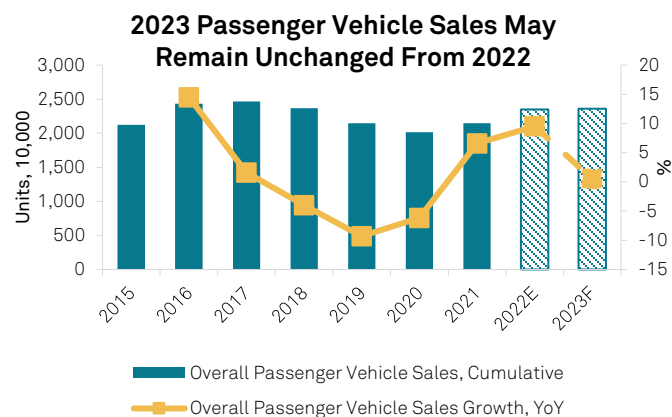
## Future Risk Factors

- Sales may continue to decline, putting significant pressure on profitability. Those companies with fewer exports may fare even more.
- The industry has a high proportion of sales on credit, with significant contingent liabilities in the form of loan guarantees, financial leasing and other sale modes. Those players with aggressive market strategies and poor risk control would come under greater credit risk.

# Auto Manufacturing

Corporates

Overall stability as NEVs develop further



Note: E – estimate, F -- forecast.  
Source: CPCA, Wind, S&P Global (China) Ratings.  
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## Outlook

We expect the credit quality of the auto manufacturing industry to remain stable in 2023, with passenger vehicle sales expected to remain stable. While profitability may come under pressure, low leverage ratios and healthy cash flows should ensure automakers remain resilient.

Domestic passenger vehicle sales should remain on par with 2022. We expect new energy vehicles to become the main cornerstone of stable sales, with the NEV penetration rate likely exceeding 30%. Despite a series of national and regional stimulus policies, 2022 saw weak sales of fuel vehicles. We expect this trend to continue in 2023.

Improving technology, better NEV charging infrastructure and acceptance among consumers should see NEV sales continue to increase, but the growth rate may slow down. In terms of exports, domestic automakers' products and branding are growing increasingly strong. As overseas markets continue to warm to Chinese branded vehicles, exports of fuel vehicles and NEVs should continue to see strong growth trends seen in 2022.

Automakers profit margins may come under pressure. The NEV sector has seen intensified competition, forcing players to step up their R&D and launch new products to improve their products' competitiveness. The competition patterns also make it difficult for automakers to pass on rising raw material costs to consumers. Furthermore, the removal of NEV subsidies should further test automakers' profitability.

We believe automakers' low leverage ratios and abundant cash flows generally make them more resilient. At the same time, many players can maintain good access to refinancing through stable government support or their own strengths.

## Future Risk Factors

- Increasing downward pressure on the economy may weigh on consumption, especially demand for bulk consumer goods.
- Automakers' NEV strategies would be a driving factor of future prospects, in terms of ability to launch competitive models or whether current popular models can retain their market positions.

### ANALYSTS

#### Renyuan Zhang

Beijing  
Renyuan.zhang@spgchinaratings.cn

#### Kexin Wang

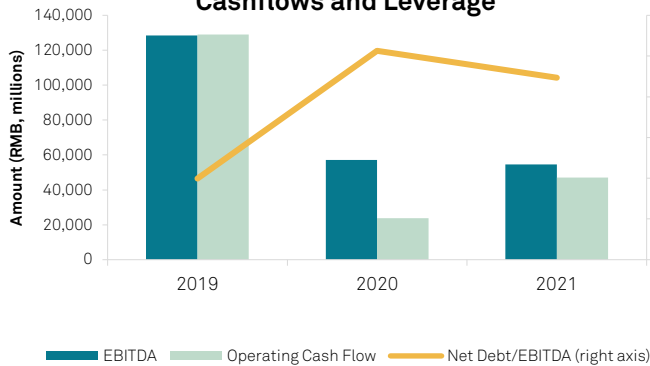
Beijing  
Kexin.wang@spgchinaratings.cn

# Airlines

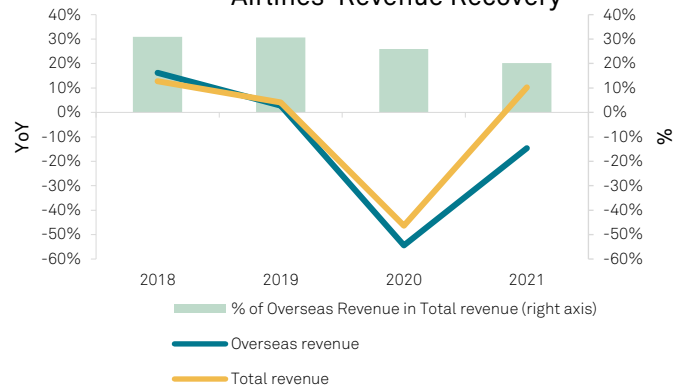
## Corporates

### Recovery in the post-COVID era

**COVID Had Major Impact on Airlines' Cashflows and Leverage**



**International Routes a Barrier to Big 3 Airlines' Revenue Recovery**



Note: the YoY figure of the first three quarters of 2021 in the left chart is against the same period of 2019.  
Source: Wind, S&P Global (China) Ratings.  
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## Outlook

2023 should see a rebound in cash flow for airlines amid easing COVID restrictions, but more time is needed for a significant fall in leverage. Strong external support can help credit quality remain stable.

Airlines' business performance should improve in 2023, driving a recovery in cash flow and profitability. Post-COVID easing of travel restrictions should see a gradual recovery of air passenger traffic. We expect the sector to see improved available seat kilometers, revenue passenger kilometers and passenger occupancy among other key indicators, helping airlines recover.

However, COVID hasn't completely gone away, and uncertainty over passenger travel demand means time is needed for air passenger volumes to recover. We don't expect a rapid recovery to pre-COVID levels, with fluctuating passenger volumes likely. Domestic civil aviation is opening up more quickly than international travel, and we expect regional airlines that generally focus on domestic travel to see more resilient operating performance, with their profits expected to recover by the biggest margin. Airlines reliant on international routes may recover more slowly.

Despite the recovery of cash flow, airlines would need a long time to get their financial situations in order, with leverage likely to remain at current levels. COVID's impact in the past three on airlines' profitability and capital has been significant, with major damage across financial statements and a large increase in leverage. We don't expect the cash flow recovery in 2023 to fully alleviate the leverage burden accumulated under COVID. Ongoing capex on aircraft would also increase interest-bearing debt, adding more leverage pressure.

We expect policy support to remain unchanged, with overall credit quality set to remain stable. China's aviation industry, driven by three major central SOE groups and their subordinate local aviation departments, received ongoing support for daily operations and capital replenishment during the epidemic. While time is needed for airlines to see a wide recovery in stand-alone credit quality, strong external support can help stabilize issuer credit quality.

## Future Risk Factors

- If passenger volumes recover below expectations, profits and cash flow may remain low.  
Some regional airlines face greater capital pressure due to continuous serious losses.

### ANALYSTS

#### Renyuan Zhang

Beijing  
Renyuan.zhang@spgchinaratings.cn

#### Yingxue Ren

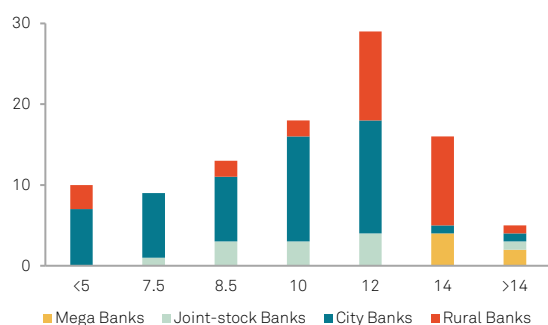
Beijing  
Yingxue.ren@spgchinaratings.cn

# Commercial Banks

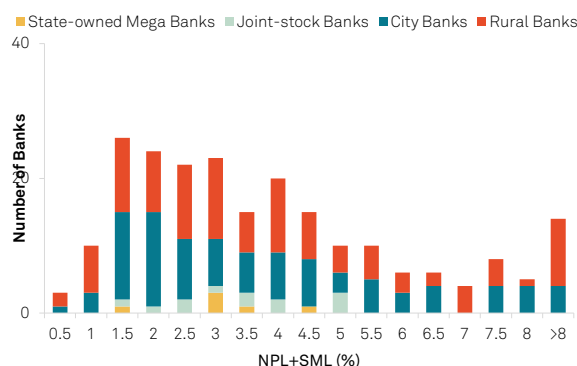
Financial  
institutions

Real estate pressure weighs on some smaller lenders' capitalization amid SACP differentiation

**Tier-1 Capital Adequacy: Testing Results of 100 Major Banks Under Real Estate Stress Scenario**



**NPL+SML Distribution of Major Banks, End of 2021**



Note: Stress test based on data disclosed in 2021 annual reports of 100 major banks. Stress assumptions include: a non-performing rate of 0.5% on mortgage loans and non-performing loss rate is 10%; non-performing rate on loans to developers and the construction industry rises to 30% with non-performing loss rate at 70%; reserve coverage of 150% for all new real estate-related NPLs, with provisioning made in time and in full with no falsified high profits; provisioning made in time and in full for current loans to and investments in other industries.

Source: Banks' public information, S&P Global (China) Ratings.

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## Outlook

The state-owned mega banks, which represent around 40% of total assets in the banking industry, should maintain stable asset quality, capitalization and profitability. By the end of September 2022, the six mega banks' NPL ratio was 1.32%, down 0.11 percentage points YoY. Their annualized ROA in the first three quarters was 0.89%, higher than the industry average of 0.75%. The mega banks' average capital adequacy ratio was 17.61%. Good business diversification, high capital adequacy, strong profitability and limited exposure to real estate have seen the mega banks maintain high capital adequacy ratios. Even where exposure to very high non-performing real estate loans has led to temporary declines in profitability, the mega banks can still maintain strong capital adequacy.

Joint-stock banks have weaker profitability and capital adequacy compared with the mega banks, and some have high exposures to real estate. If real estate NPL ratios reach a very high level, certain joint-stock banks may face some capital adequacy pressure. However, joint-stock banks overall still show good capital resilience. The likelihood of a capital shortfall among specific joint-stock banks under a stress scenario remains low. By the end of September 2022, the average capital adequacy ratio of joint-stock banks was 13.54%, and the non-performing ratio was 1.34%. The annualized ROA in the first three quarters was 0.84%.

Some regional small and medium-sized banks (including city banks and rural banks) have average capital resilience in response to the real estate crisis. According to our sensitivity analysis, if NPLs to real estate and the construction industry rise to 30%, assuming a bad debt recovery rate of 30%, we expect the tier-1 capital adequacy ratio of 82 major regional banks to fall from 10.34% at the end of 2021 to 9.89%, still meeting the minimum regulatory requirement of 8.5%. However, it is worth noting that capital resilience varies widely from bank to bank. In the above scenario, the tier-

### ANALYSTS

#### Stephanie Wang

Beijing

stephanie.wang@spgchinaratings.cn

#### Ying Li

Beijing

ying.li@spgchinaratings.cn

1 capital adequacy ratio of 28 small and medium-sized banks would be lower than 8.5%. Many small and medium-sized banks face capital challenges due to problem loans in other industries which have already caused great pressure on capital. If such pressure overlaps with real estate risks, capital adequacy under a stress scenario would very likely be insufficient. By the end of September 2022, the average capital adequacy ratio of rural banks was 12.03%, and the non-performing ratio was 3.29%. For city banks, average capital adequacy ratio was 12.85%, and the non-performing ratio was 1.89%.

The loose monetary policy environment can help banks maintain sufficient liquidity. We expect government support to remain stable. An accommodative liquidity environment and strong government support can buy time and space for certain small and medium-sized banks to properly resolve risks.

## Future Risk Factors

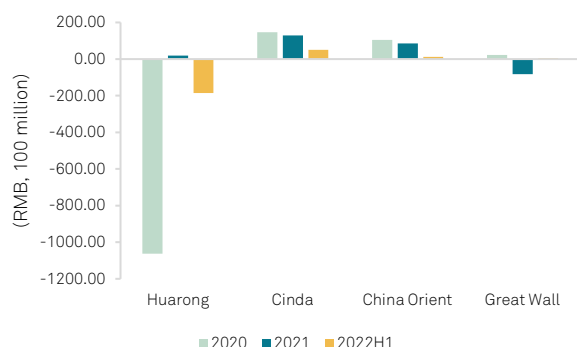
- Exposures to real estate and rolled-over loans issued to small and medium-sized enterprises may affect the capital resilience and stand-alone credit quality of certain small and medium-sized banks.

# Asset Management Companies

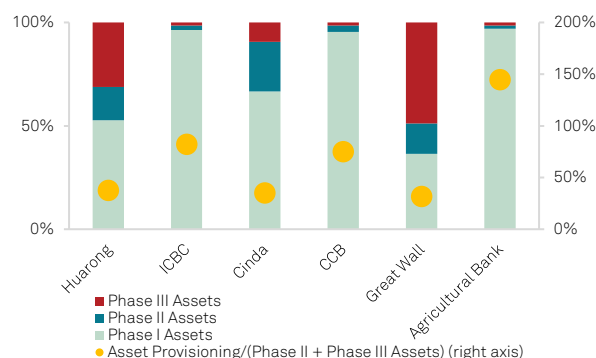
Financial  
institutions

Government support crucial amid asset-quality pressure

Changes in Big Four AMC's Net Profits



Overview of AMC, Major Bank Assets



Note: 1. According to IFRS 9, Stage I assets refer to financial instruments with no significant increase in credit risk since initial recognition. Stage II assets refer to financial instruments with significant increase in credit risk since initial recognition, but no objective evidence of impairment. Stage III assets refer to financial instruments with material evidence of impairment as of the balance sheet date. 2. The asset portfolios of ICBC and CCB comprise loans and advances measured at amortized cost and loans and advances measured at fair value with changes included in other comprehensive income; Huarong's asset portfolio is made up of financial assets measured at amortized cost; Cinda's asset portfolio is a non-performing asset portfolio of financial assets measured at amortized cost. 3. Huarong and Great Wall data as of end of December 2021. Cinda, ICBC, CCB and Agricultural Bank data as of end of June 2022.

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

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## Outlook

Amid increasing bad debts in real estate and other industries, China's Big Four asset management companies (AMCs) may have opportunities to expand their non-performing asset business. However, they face capital pressure from existing operational risks which may limit their ability to participate in new financing to the real estate sector.

By the end of June 2022, the total assets of Cinda, Dongfang and Great Wall saw growth of -7%, 1% and 12% from the beginning of the year. Huarong's total consolidated assets had decreased by 38% from the beginning of the year to the end of June 2022 after it sold off some non-core subsidiaries.

China's AMCs' actual capital levels are set to come under pressure. The Big Four have high leverage levels. By the end of June 2022, total debt/owner's equity (excluding bank subsidiaries) of Huarong, Cinda, Dongfang and Great Wall were 13.07x, 5.56x, 4.08x and 8.48x respectively. COVID and real estate pressure saw the Big Four's asset quality deteriorate further in 2022, with bad debts leading to significant capital erosion pressure.

By the end of June 2022, Cinda's non-performing debt investment assets accounted for 24% (Stage II) and 9% (Stage III) of total assets, up 22% and 6% respectively from the start of the year; By the end of 2021, Huarong's Stage II debt investment assets accounted for 16%, and Stage III assets 31%. Great Wall's Stage II assets accounted for 15% and Stage III 49%.

The Big Four AMCs' provisioning is far weaker than commercial banks. There is significant pressure on future provisioning, affecting profitability and capital resilience. By the end of 2021, Huarong, Cinda and Great Wall's provisioning for debt investments accounted for 30-40% of Stage II and III assets. In contrast, the four mega banks' reserves cover 96% of Stage II and III loans.

### ANALYSTS

#### Xuefei Zou

Beijing

eric.zou@spgchinaratings.cn

#### Jiancheng Yang

Beijing

allen.yang@spgchinaratings.cn

#### Ying Li

Beijing

ying.li@spgchinaratings.cn

Some AMCs have incurred losses, affecting their capitalization. In 2020 and the first half of 2022, China Huarong lost 106.3 billion RMB and 18.6 billion RMB respectively, accounting for 65% and 18% of initial net assets respectively. Great Wall lost 8.2 billion RMB in 2021, accounting for 13% of its initial net assets at the beginning of the period.

We expect the major AMCs' funding and liquidity to remain stable in the next 12 months. The AMCs have significant asset liability mismatch risk. Cash inflow from non-performing asset business is unpredictable, and such assets have long recovery cycles. However, major licensed AMCs have close ties with state-owned assets, and are highly likely to obtain government liquidity support in a crisis situation.

Extraordinary central government support is one of the main factors supporting the Big Four's credit quality. We expect no change to this support. While working to maintain financial stability, regulators and the government also need to consider moral hazards in their support. Provision of government support cannot be equated with a government guarantee on the sector.

## Future Risk Factors

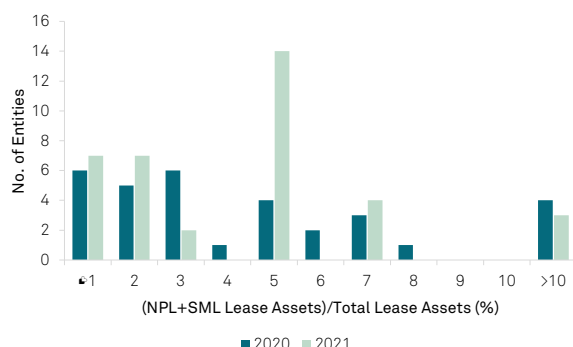
- Real estate risks may continue to weigh on AMCs' asset quality and capital strength in 2023.

# Commercial Leasing Companies

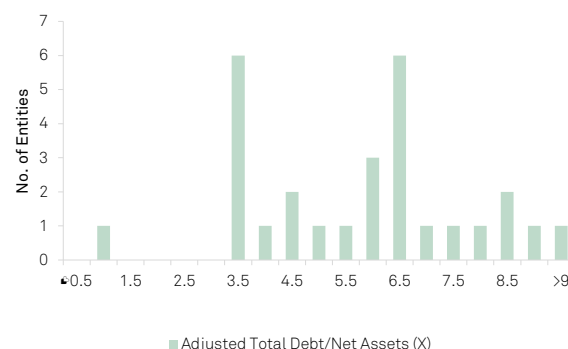
Financial  
institutions

Leverage, bad debt levels stable as credit quality remains steady

Distribution of Commercial Leasing Companies' NPL+SML Lease Assets, End of 2021



Distribution of Commercial Leasing Companies' Adjusted Leverage Ratios, End of 2021



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

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## Outlook

We expect commercial leasing companies' business positions to remain stable in 2023. We expect major commercial leasing companies to maintain asset growth of more than 10% in the next 12 months. Such rapid growth would mainly be due to close ties between many leasing companies' business and that of their groups. Accelerating investment from large central SOEs has also been a factor in the sector's rapid development.

Capital and earnings should stay stable in 2023. The adjusted leverage ratio (total debt/owner's equity) of 30 major commercial leasing companies has remained at around 5.5x in recent years. Given their stable profitability and solid business models, we expect leverage in the sector to remain stable in the next 12 months. Controllable credit cost and stable leverage should see ROAE remain within a range of 7-9% in 2023.

Due to their prudent business approach, we expect commercial leasing companies' risk positions to stay stable in 2023. The NPL+SML ratio of 30 major commercial leasing companies is about 3.5%, slightly better than the 4% NPL ratio of commercial banks. Asset quality of those commercial leasing companies mainly engaged in their group's core business is often good and stable. Asset quality pressure on players that focus on non-group related business still exists. The average reserve coverage of the 30 companies for NPL+SML assets is about 100%, and overall provisioning is at a good level.

Commercial leasing companies are generally heavily reliant on short-term wholesale funding, with significant asset liability mismatch. However, financing support from groups largely makes up for financing weakness. The average short-term debt of major issuers in the sector accounts for 50% of total debt. Unused credit lines account for about 80%.

Large and medium-sized commercial leasing companies that have issued bonds in the capital market maintained stable asset quality and leverage during COVID, with stand-alone credit quality remaining stable. We believe average stand-alone credit quality is better than that of unlicensed

### ANALYSTS

#### Xiaochen Luan

Beijing  
collins.luan@spgchinaratings.cn

#### Jiachuan Xu

Beijing  
jiachuan.xu@spgchinaratings.cn

#### Qiwei Chen

Beijing  
qiwei.chen@spgchinaratings.cn

#### Ying Li

Beijing  
ying.li@spgchinaratings.cn

finance companies. The indicative stand-alone credit quality of the 30 companies tested ranges from [b<sub>spc</sub>] to [bbb<sub>spc</sub>], with the median level at [bb<sub>spc</sub>].

For most major commercial leasing companies, group credit quality has remained at a good level, with groups showing stable willingness and ability to provide support. We therefore expect issuer credit quality in the financial leasing sector to remain stable. Low entry barriers to the industry mean default risk among parent companies can be high, likely leading to negative group influence. However, recent years have seen such commercial leasing companies rarely issue bonds. Most issuers in the sector are under groups with good credit quality. Our study of 30 companies found indicative issuer credit quality range from [A<sub>spc</sub>] to [B<sub>spc</sub>], with the median level at [BBB<sub>spc</sub>]. Few institutions have weak credit quality.

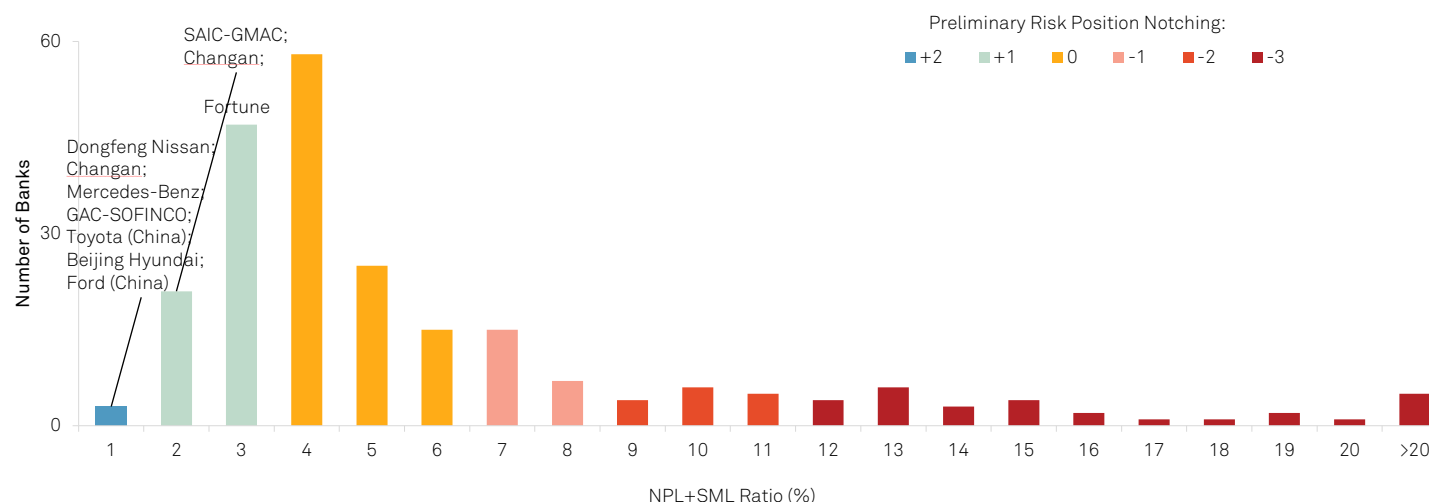
## Future Risk Factors

- The asset quality of commercial leasing companies mainly engaged in non-group related businesses may remain under pressure. Those players exposed to LGFVs should be monitored.

# Auto Finance Companies

Financial  
institutions

Stable credit outlook amid ample capital and high asset quality



Source: CBIRC, banks, auto finance companies' public information, S&P Global (China) Ratings..

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## Outlook

Auto finance business is closely linked to automakers' sales prospects. We expect the auto finance industry to maintain steady growth in 2023, with loan growth rates lower than the average growth for social finance. This is mainly due to the fact that domestic car sales have stabilized. In recent years, the penetration rate of domestic auto finance (the proportion of total new cars purchased through loans compared to overall sales of new cars) has been about 50%. In contrast, the most overseas markets have penetration rates above 70%. We believe there is still room for China's penetration rate to further increase.

Auto finance companies' (AFCs) capital consumption by new business largely matches their capacity to generate capital. We therefore expect AFCs to maintain healthy capital going forward. Compared with banks, AFCs' good asset quality ensures good capital quality. Risks from bad debt eroding capital is small, and capital resilience is very good.

In terms of profitability, AFCs' NIM correlates with automakers' discount policies, and is lower than that of other financial segments due to the influence of market interest rates. Considering their good asset quality and sufficient reserves, AFCs' credit cost and profit should stay stable. Our testing found the 10 biggest AFCs' average ROA was about 2%, and their profitability was higher than the average level of banking financial institutions.

The sector's risk controls stemmed pressure from COVID, with no major drop in asset quality in the past few years. Risk management practices are well-established and personal credit risk control mechanisms are mature, helping maintain asset quality at a good level. In the next 12 months, we expect the auto finance industry to continue improving its penetration rate while maintaining good asset quality.

Considering that AFCs have sufficient capital and good asset quality, we expect them to maintain good, stable access to wholesale funding channels. A large, solid base of high-quality auto finance

### ANALYSTS

#### Xuefei Zou

Beijing  
eric.zou@spgchinaratings.cn

#### Jiachuan Xu

Beijing  
jiachuan.xu@spgchinaratings.cn

#### Jiancheng Yang

Beijing  
allen.yang@spgchinaratings.cn

#### Ying Li

Beijing  
ying.li@spgchinaratings.cn

loan assets has also helped lay good foundations for AFCs to issue ABS products. We expect AFCs' funding and liquidity to remain stable in the next 12 months.

In summary, given their good asset quality, sufficient capitalization and stable profitability, we expect AFCs' stand-alone credit quality to remain stable.

In terms of group support, compared with COVID at its peak, automakers' situations have improved, and thus capacity to support subsidiary AFCs has also improved. Therefore, while the macroeconomic environment still faces many challenges, we expect AFCs' issuer credit quality to remain stable.

## Future Risk Factors

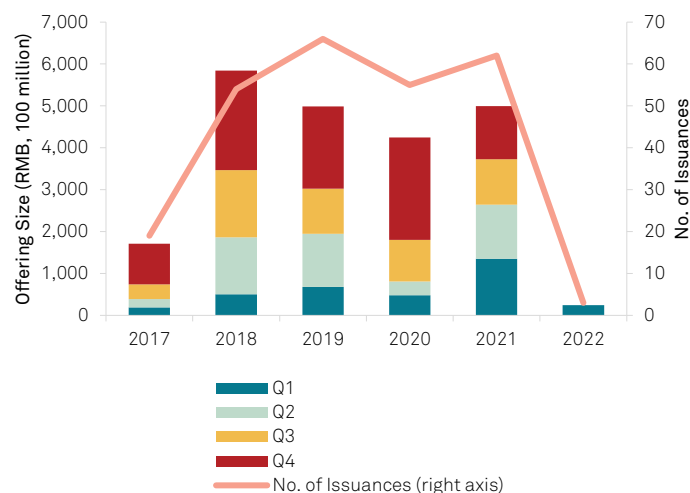
- Fluctuations in credit quality at the parent company level should be monitored closely.

# RMBS

Structured  
finance

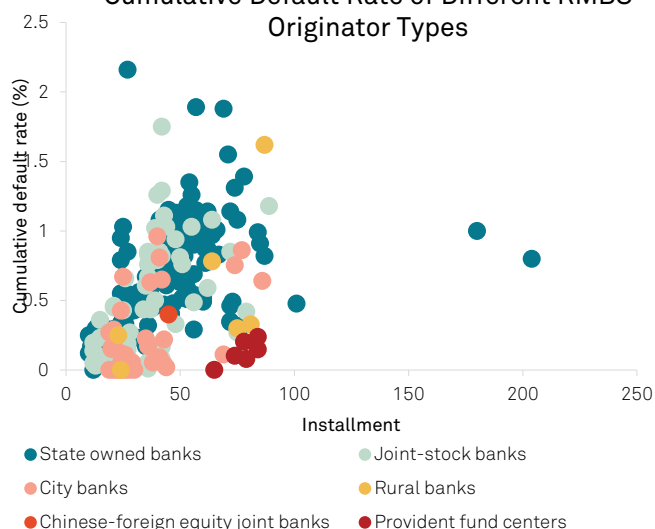
Credit quality of current products stable, new issuance scale remains to be seen

RMBS Issuance from 2017 to 2022



Note: Data as of the end of November 2022.  
Source: Public information, collated by S&P Ratings.  
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Cumulative Default Rate of Different RMBS Originator Types



## Outlook

We expect the credit quality of current RMBS products' underlying assets to maintain stability in 2023, with transactions' credit performance set to remain steady. Most banks now apply strict criteria for new personal housing mortgage loans and follow strict credit review and post-loan management procedures. Our view is also informed by real estate policy's focus on stability and the characteristics of RMBS products' underlying assets and transaction structures.

By the end of November 2022, the cumulative default rate of current RMBS transactions' underlying assets remained below 1.5%. Property affected by mortgage boycotts in 2022 didn't represent a high proportion of assets in the current mortgage loan market, and therefore didn't account for a large portion of RMBS transactions' underlying collateral. The main negative impact was on transactions with a high proportion of loans without formal mortgage registration.

The underlying assets of domestic RMBS transactions are well dispersed, with relatively low loan-to-value and sufficient seasoning. These credit-positive characteristics can help mitigate risks brought about by credit events and mortgage boycotts. We expect the performance of underlying RMBS assets to stay stable in 2023.

Most RMBS transactions adopt amortization repayment mechanisms for senior notes, ensuring increased credit enhancement of subordinate notes when underlying assets have low default risk. RMBS senior notes usually adopt floating interest rates, mitigating erosion of excess spread when interest rates are on a downward trend. Such transaction structures can even increase excess spread under certain circumstances. We expect the credit performance of RMBS transactions to remain stable in 2023.

### ANALYSTS

#### Enjie Zhang

Beijing  
enjie.zhang@spgchinaratings.cn

#### Kan Zhou

Beijing  
kan.zhou@spgchinaratings.cn

2022 Q1 saw only three new RMBS transactions, with issuance scale down by about 95% from 2021 and at its lowest level since 2015. Considering current real estate market conditions, the impact of COVID and changes to economic policy, we believe uncertainties remain over issuance scale and growth in 2023. While mortgage loan interest rates are on a downward trend and recent policies have been launched to support the market, demand has not seen a rapid recovery, and the long-term impact remains to be seen.

With the upstream market not yet recovered, future RMBS issuance would remain subject to relevant macroeconomic policies, greater demand for balance sheet management by commercial banks and innovative changes in products' structures. At the same time, 2022 saw the first clean-up call of an RMBS transaction. We expect some impact on the outstanding scale of RMBS market in future, should more transactions be fully paid-down or more clear-up calls take place.

## Future Risk Factors

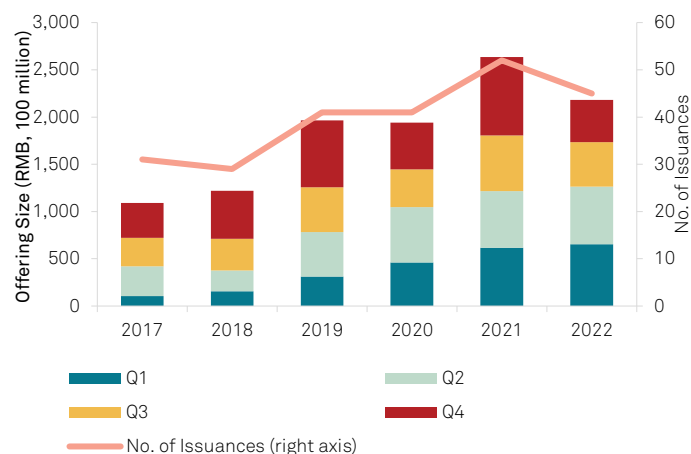
- In 2023, risks around construction and forward delivery of housing projects that lack formal mortgage registration should still be monitored. Other risks include geographic and developer concentration risk, and the risk that the mortgage cannot be exercised in time due to a failure to formally register the mortgage in time.
- The impact of interest rate changes on the default, recovery and early repayment of individual housing mortgage loans should be monitored, as well as any implications for RMBS transactions.
- We continue to watch for signs that various support measures for real estate can be transmitted to the personal housing mortgage market. If so, we would follow any implications for RMBS issuance.

# Auto ABS

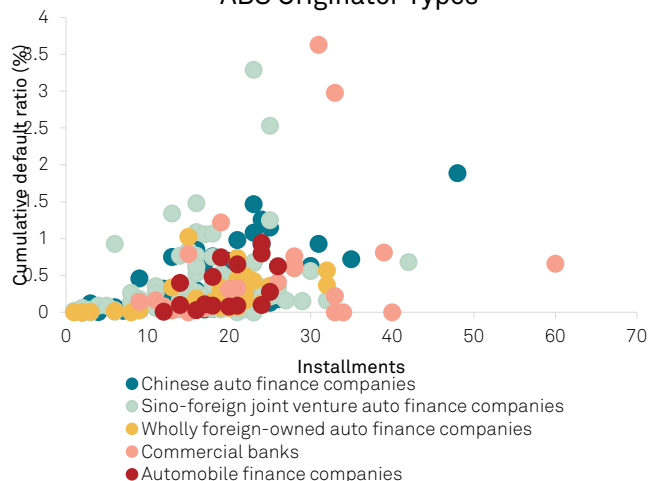
Structured  
finance

Credit quality, issuance stable amid ongoing differentiation

Auto Loan ABS Issuance from 2017 to 2022



Cumulative Default Rate of Different Auto ABS Originator Types



Note: Data as of the end of November 2022.  
Source: Public information, collated by S&P Ratings.  
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## Outlook

Despite macroeconomic pressure superimposed with the impact of COVID, the auto loan ABS sector was able to remain resilient thanks to its underlying assets with high granularity. We expect the credit quality of underlying auto ABS assets and product performance for current transactions to stay stable in 2023.

By the end of November 2022, the cumulative default rate of most auto ABS transactions' underlying assets remained within 2%, with relatively short tenors. We expect asset performance in 2023 to overall remain stable, but there will continue to be differentiation in terms of originator type and asset pool structures, based on originators' target customers, promotion policies, risk control mechanisms etc. In addition, given the growing market share of NEVs and policy support for green financing and ESG, China's auto ABS market is expected to become increasingly "green."

Auto loan ABS transactions' credit enhancements generally include senior-subordination structures, overcollateralization, excess spread and liquidity reserve. Such features usually provide sufficient credit enhancement. We expect the credit performance of current auto ABS transactions to stay stable in 2023.

Issuance should remain steady through 2023, with originators still mostly auto finance companies, for whom auto ABS issuance has become an indispensable financing channel. Auto ABS is becoming increasingly important in the securitization market, gaining further recognition from both domestic investors and overseas markets. We expect further international integration for the sector in future, with more innovative products and transaction structures set to emerge, alongside a more diversified range of market participants.

### ANALYSTS

#### Beibei Shi

Beijing

beibei.shi@spgchinaratings.cn

#### Kan Zhou

Beijing

kan.zhou@spgchinaratings.cn

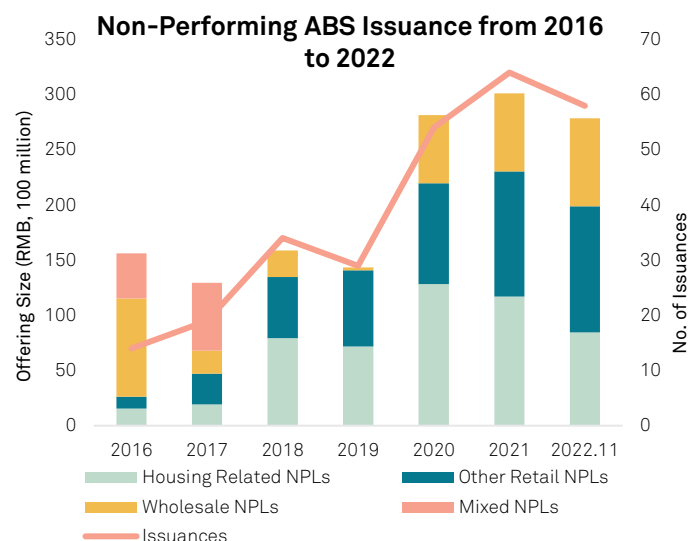
## Future Risk Factors

- The impact of easing COVID restrictions on consumption in the automobile market should be monitored, along with supply and demand patterns for auto loans.
- As auto finance business expands to tier 3 and tier 4 cities and rural areas, and some companies relax their loan requirements amid sales pressure or industry competition, we anticipate further divergence in asset performance among different types of originators.
- Macroeconomic uncertainty and any future changes in COVID policy should be watched closely. Delinquency rates and conditional prepayment rates for auto ABS transactions may become more volatile.

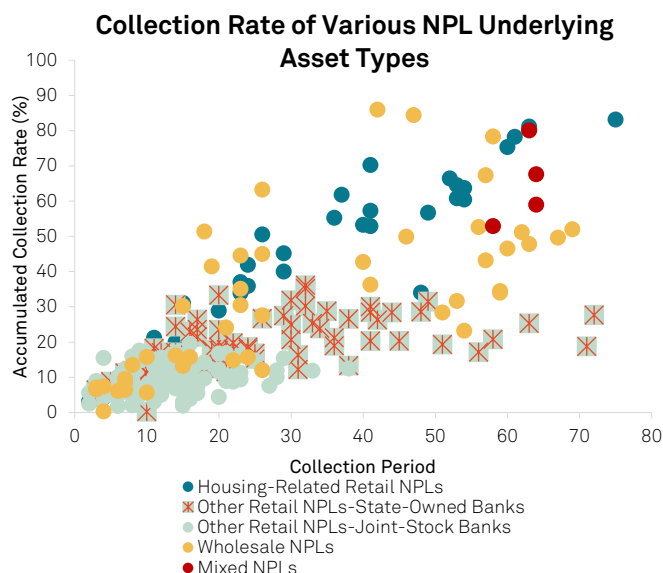
# Non-Performing ABS

Structured  
finance

Recovery trends may see further differentiation, senior notes' credit quality to remain stable



Note: Data as of the end of November 2022.  
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## Outlook

Amid COVID and macroeconomic pressure, we expect non-performing asset-backed securities' asset pools to expand. Meanwhile, pressure on collection of non-performing assets is set to grow. The credit quality of senior notes should remain stable, but we expect more differentiation in terms of asset recovery across the industry.

Non-performing asset transactions generally have sufficient overcollateralization and shorter tenors. Non-performing assets fall under multiple categories, which can generally be categorized as retail and wholesale assets. For retail assets, we find that housing-related non-performing assets (personal housing mortgage loans, other real estate mortgage loans etc.) follow significantly different recovery trends compared to other collateral and credit assets.

In our view, this reflects that housing, a high-quality collateral, has a liquid market, well-established legal frameworks and market track record, thus improving the rate of recovery for underlying securitized assets.

The current average tenor of housing-related non-performing retail assets (from the cut-off date) is 33 months, and the corresponding cumulative recovery rate is about 45%. This contrasts widely to non-housing non-performing assets, where average tenor is about 19 months and the cumulative recovery rate is 14%.

In 2023, we expect personal retail NPLs to continue as the mainstay of non-performing ABS transactions. There may be greater differentiation in terms of originator and product type, and we expect housing-related transactions to maintain good recovery performance.

### ANALYSTS

#### Enjie Zhang

Beijing  
enjie.zhang@spgchinaratings.cn

#### Kan Zhou

Beijing  
kan.zhou@spgchinaratings.cn

Non-performing asset securitizations usually include sufficient credit enhancement to better absorb underlying non-performing assets, and credit performance has generally remained stable. In addition, given that non-performing credit asset transactions do not involve disposal of collateral and have relatively low recovery expectations, senior note tenors are usually relatively short. Payment is usually completed within one year. Such a short risk exposure period helps further stabilize senior notes' credit quality. We expect such characteristics to remain unchanged over 2023, and therefore anticipate stable credit performance for non-performing asset transactions.

Issuance rates have stabilized in the past three years after a phase of rapid growth. We expect overall issuance scale to remain stable in 2023. Most originators would still be state-owned banks, with further participation by joint-stock banks and other small and medium-sized financial institutions.

## Future Risk Factors

- We continue to monitor whether asset and recovery disposal proceeds as expected, considering the various forms of securitization and types of underlying asset. Furthermore, exposure to regional economic or market changes may impact on disposal and collection.
- Amid COVID and macroeconomic pressure, originators may adjust their processes and strategies for asset recovery and collection.

## About This Article

S&P Ratings (China) Co., Ltd. (S&P China) has conducted a desktop analysis of a selection of entities, which we have chosen based on their asset sizes, representativeness of most regions and availability of public information. The analysis contained herein has been performed using S&P China Methodologies. S&P China Methodologies and analytical approaches are intended specifically for use in China only, and are distinct from those used by S&P Global Ratings. An S&P China opinion must not be equated with or represented as an opinion by S&P Global Ratings, or relied upon as an S&P Global Ratings opinion.

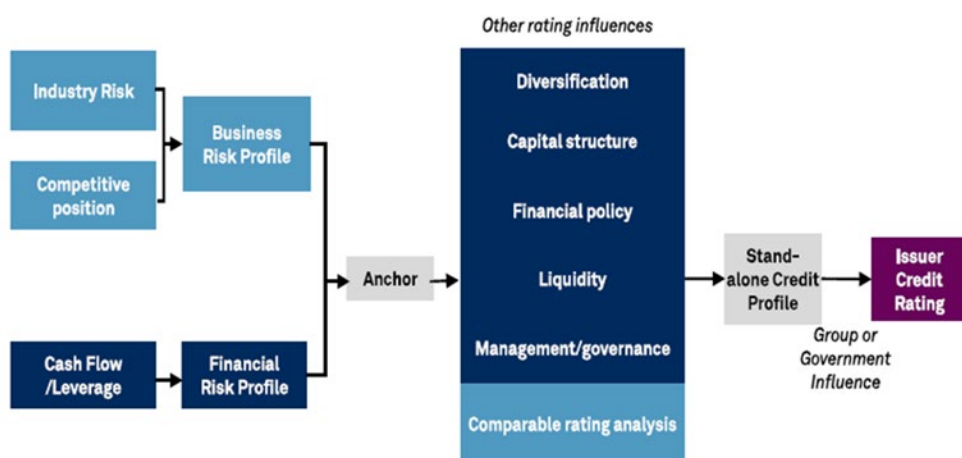
This desktop analysis has been conducted using publicly available information only, and is based on S&P China's methodologies. The analysis involves a desktop application of our methodologies to public information to arrive at a potential view of credit quality across sectors. It is important to note that the opinions expressed in this report are based on public information and are not based on any interactive rating exercise with any particular entity. 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 on any particular entity, but are initial insights of potential credit quality based on the analysis conducted. This desktop analysis does not involve any surveillance. The opinions expressed herein are not and should not be viewed as recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security.

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

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

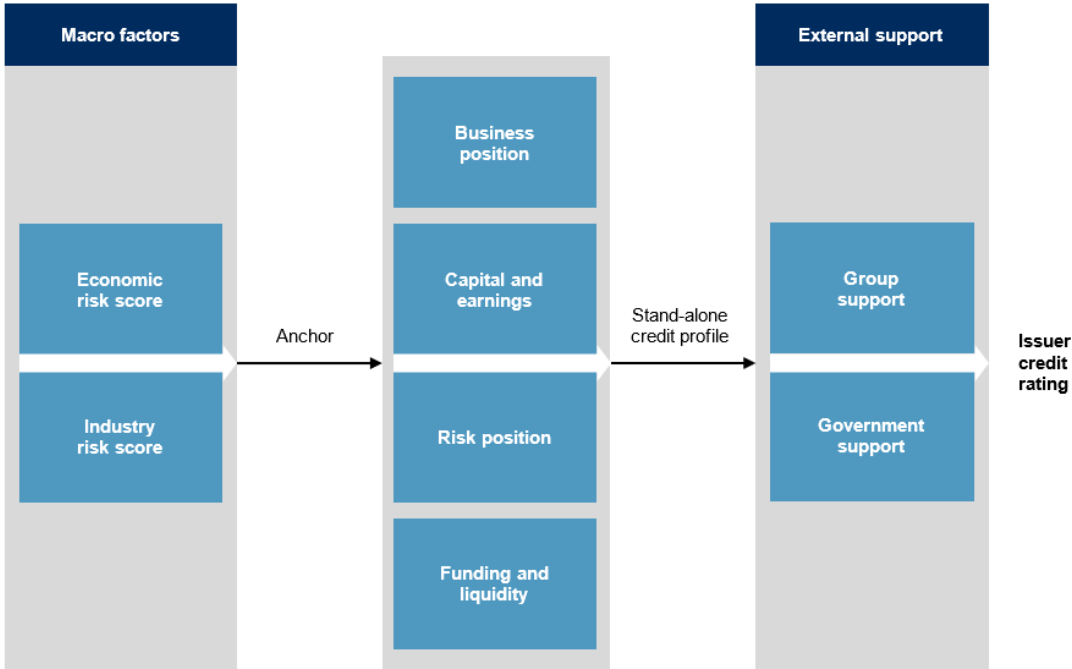
# Our Corporate Rating Methodology Framework

According to S&P Global (China) Ratings' Corporate Company Methodology Framework, when we analyze the credit quality of non-financial companies, we usually begin with analysis of the entity's business risk profile and financial risk profile, and then look at the modifiers before arriving at its Stand-alone Credit Profile (SACP). We then analyze the external support that companies may obtain, including group or government support, to arrive at the indicative Issuer Credit Rating (ICR).



# Our Financial Institution Rating Methodology Framework

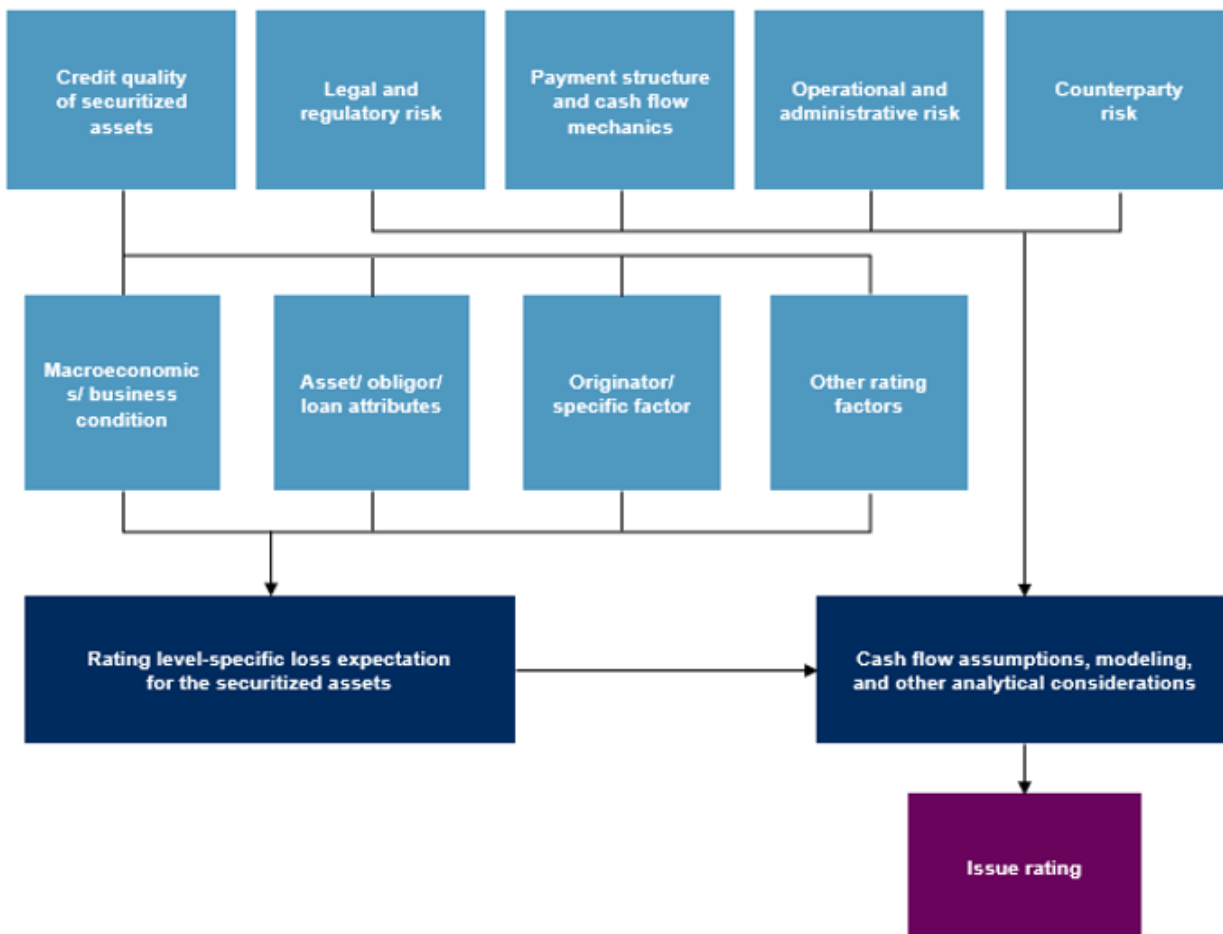
Financial Institutions Methodology Framework



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# Our Structured Financing Rating Methodology Framework

## Structured Finance Methodology Framework



# Commercial Team Contact List

**Peter Li**

Director of Outside Sales  
peter.li@spgchinaratings.cn

**Michael Zhang**

Associate Director of Outside Sales  
michael.zhang@spgchinaratings.cn

**Jun Liu**

Associate Director of Outside Sales  
jun.liu@spgchinaratings.cn

**Samuel Wang**

Director of Outside Sales  
samuel.wang@spgchinaratings.cn

**Eric Xu**

Associate Director of Outside Sales  
eric.xu@spgchinaratings.cn

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