Credit Research Initiative
National University of Singapore
transforming big data into smart data
NUS National University of Singapore
AI·DF Asian Institute of Digital Finance
Weekly Credit Brief
Apr 11 - Apr 17 2023

Credit risk outlook of the Chinese steel industry may improve on the back of downstream demand recovery

by NUS-CRI Market Monitoring Team

- **NUS-CRI Agg PD of Chinese steel companies suggests that waning demand from key downstream sectors has pressured profitability and debt serviceability, heightening credit risk**
- **NUS-CRI Forward PD suggests that in the longer term, the reopening of the economy, fiscal incentives, a supportive monetary policy, and industry consolidation may improve the credit outlook**

The Chinese steel industry, the largest in the world, has been hit by the demand slowdown, originating in key downstream sectors[1], which has resulted in a significant drop in profits and excess supply. As seen in Fig 1a, the NUS-CRI aggregate (median) 1-year Probability of Default (Agg PD) for the Chinese steel industry has been increasing steadily since 2022 and is currently above the BB upper bound when referenced to PDiR2.0[2] bounds. As the pace of economic recovery remains subdued, over the short term, the steel companies might still suffer from waning demand, squeezed profitability, and elevated debt service pressures, suggested by the elevated NUS-CRI aggregate (median) Forward 1-year PD (Forward PD[3]) over BB upper bound. However, over the longer term, the reopening of the Chinese economy, the fiscal incentives, and a supportive monetary policy may stimulate demand recovery, reduce overcapacity and at the same time improve access to credit, resulting in an improvement in the industry's credit outlook.

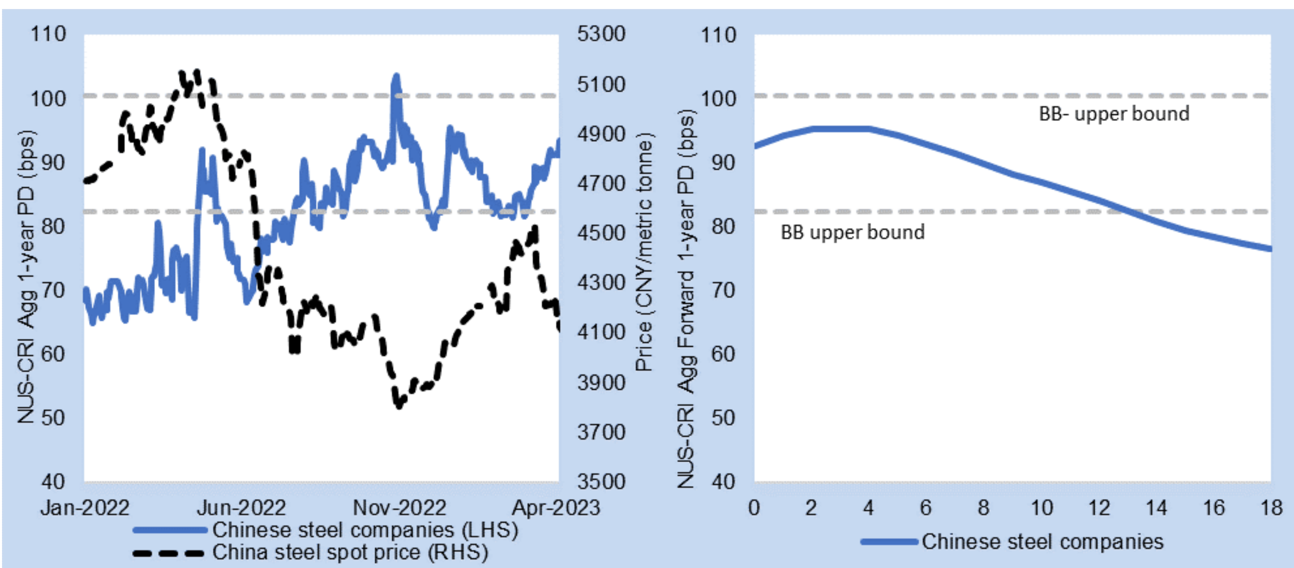

Figure 1a (LHS): NUS-CRI Agg (median) 1-year PD for the Chinese steel companies with reference to PDiR2.0 bounds, and the China domestic steel rebar 25mm spot average price. Figure 1b (RHS): NUS-CRI Agg (median) Forward 1-year PD for the Chinese steel companies with reference to PDiR2.0 bounds. *Source: NUS-CRI, Bloomberg*

Faced with numerous headwinds, 2022 proved to be a challenging year for China's steel industry, with key players in the industry reporting up to a 70% drop in annual profits. With 95% of the industry's steel output catering to the domestic market, the demand for the steel industry is highly dependent on China's economic activity. An ongoing slowdown in the property sector, which typically consumes 30% of the steel industry's

[1] China's steel industry related sectors such as real estate, automotive, infrastructure, mechanical equipment, and metal products.

[2] The Probability of Default implied Rating version 2.0 (PDiR2.0) provides a more familiar interpretation by mapping the NUS-CRI 1-year PDs to the S&P letter grades. The method targets S&P's historical credit rating migration experience exhibited by its global corporate rating pool instead of relying solely on the reported default rates.

[3] The Forward PD estimates the credit risk of a company in a future period, which can be interpreted similarly to a forward interest rate. For example, the 6-month Forward 1-year PD is the probability that the firm defaults during the period from 6 months onwards to 18 months – this is conditional on the firm's survival in the next 6 months.

output, resulted in losses at several steel mills as steel consumption declined for a second consecutive year in 2022. Automobile sales in China also started to slow down from Aug 2022 and showed a 20% decline in the first two months of 2023 possibly due to the cessation of pandemic-era tax incentives on vehicle purchases. Adding to the steel industry's woes are the Chinese local governments that are highly indebted and are as a result slowing infrastructure investment. Incidentally, the stress on steel producers is a result of not only falling sales but also increased costs. In recent years, as raw material and energy prices have been increasing due to geopolitical tensions and supply chain disruptions, the costs of steel firms surged. The prices of coking coal, a key raw material, remained high for the most part of 2022. The revenue and cost side pressures caused the aggregate profit margin for the companies in our sample to decline from 3.8% in Mar 2022 to 1.1% in Dec 2022[4].

Coming into 2023, there was a rebound in domestic steel prices (see Figure 1a) as the market expected an overall improvement in economic activity following key policy decisions such as the abandonment of the Zero-COVID policy and the relaxation of the property sector's "three red lines" policy. Consequently, production in the first two months of 2023 was also up 5.6% YoY buoyed by pent-up demand and expectations of a rebound in economic activity. However, since Mar 2023 demand began to soften and raised oversupply concerns. Resultantly, inventory levels rose by 6.2% in Apr 2023 causing steel mills to offer discounts, thus pushing steel prices lower. Should the downward adjustment of steel prices endure, it may prolong the adverse impact on the industry's profitability and its ability to service debt. As the drop in demand overshadows the drop in output, oversupply may continue to heap pressure on the industry's margins. The industry's ability to service debt obligations also remains pressured as demonstrated by the consistent decline in the interest coverage ratio from 9.09x in Mar 2022 to 2.8x in Dec 2022.[5] As Figure 2a exhibits, 44.77% of the industry's outstanding bonds totaling USD 9.53bn will mature by 2024. Given the companies' current liquidity position, the upcoming maturities may pose an elevated refinancing risk, especially for steelmakers with weaker fundamentals and lower bargaining power.

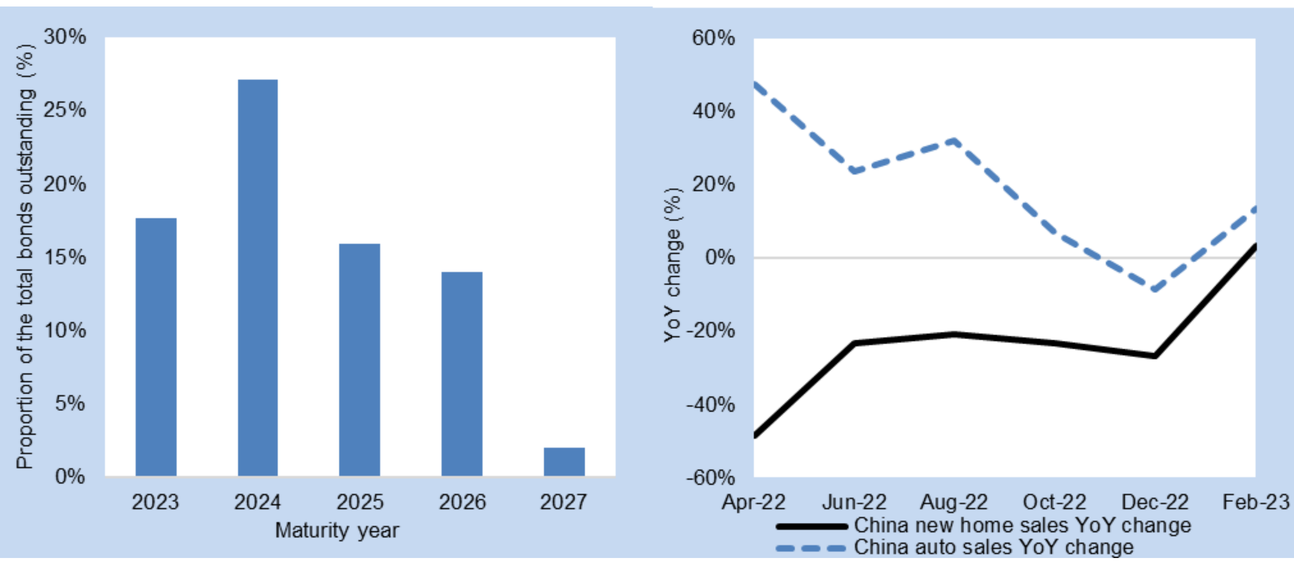

Figure 2a (LHS): Maturity distribution of the total outstanding bonds of the Chinese steel companies. Figure 2b (RHS): The % YoY change in China's new home sales and China's auto sales. *Source: Bloomberg, Trading Economics*

To lend support to steel prices and to curtail oversupply issues, the government has resorted to capping production outputs. The most recent output cut by the government is expected to be announced by the end of Apr 2023. Although a cap on output supports steel prices, it also caps the industry's revenue-generating ability. Thus, in the short run, as demand recovery remains slow and as output cuts loom, the steel companies may continue to face squeezed profitability and debt serviceability, as indicated by the elevated forward PD in the next 6 months (see Figure 1b). However, in the longer term, the forward PD trend shows a consistent decline as the industry demand is projected to revive on the back of government and central bank incentives to stimulate economic growth. For instance, the recovery in China's new home sales (see Fig 2b) can be attributed to the government's pullback of key property sector restrictions, the extension of credit to developers by state-owned banks, lower mortgage rates geared to incentivize home buyers, and resilient land sales. China's central bank has also supported the government in its effort to stimulate the economy by cutting reserve requirements and facilitating lower funding costs. The higher-than-expected credit expansion in Mar 2023 shows that the concerted efforts of the government and the central bank may have a positive impact on economic activity. The increasing demand in key downstream industries of steel (see Figure 2b) may also boost steel demand, reduce

[4] Data from Bloomberg.
[5] Data from Bloomberg.

overcapacity, and improve the credit outlook of the industry as suggested by the Forward PD in Figure 1b. Additionally, in the longer term, China's steel industry is undergoing a consolidation that started in 2021. This consolidation may strengthen the industry's bargaining power for raw materials and stabilize steel prices. Further, the steel industry consolidation may facilitate the acquisition of more vulnerable firms by larger, stable counterparts, and in turn, provide stability to the overall credit health of the industry.

Credit News

Investors shun riskier US corporate debt as recession fears loom

Apr 13. Investors are avoiding the riskiest US corporate debt due to concerns over an impending recession, creating a divide between high- and low-rated companies in the USD 1.4tn high-yield bond market. While higher-quality debt has regained losses from last month's banking crisis, investors are wary of more speculative bets as they fear defaults from the most indebted companies during an economic downturn. The gap in the high-yield market has widened following the collapse of Silicon Valley Bank and the Credit Suisse rescue deal. Meanwhile, borrowers with weaker ratings have remained under pressure, with an index of triple-C and lower bonds yielding 15.3%. (FT)

Shadow lenders to bridge real estate void left by banks, bonds

Apr 13. Banks and the bond market are pulling back from commercial real estate (CRE) lending, due to the effects of the US regional bank crisis combined with rising loan defaults on troubled properties. This is leaving room for shadow lenders, such as private credit funds, to step in and fill the void. These private credit shops are using their capital to dish out loans, usually charging more than banks for their financings. Borrowers may now have to pay more for CRE deals, with private credit setting its sights on the sector, at higher spreads. Regional banks make up about 70% of the CRE loans made out by US banks, and this move could shift CRE lending from the banking system to private capital over the longer term. (Bloomberg)

More junk-rated companies are facing credit downgrades and defaults

Apr 13. Credit-rating firms warn that US companies with high leverage or rated below investment grade are facing more challenging prospects. The rating firms believe that default rates for junk-rated companies could more than double by early next year as they struggle with the increase in debt servicing costs and a possible recession amid rising interest rates by the Federal Reserve. Companies with low credit ratings and floating-rate debt are particularly at risk. Moody's Investor Service predicts default rates for low-rated US companies to reach 5.4% in February 2024, up from 2.5% in February 2023, and higher than the long-term average of 4.7%. (WSJ)

China's top banks plan USD 5.8 bn of bond sales to plug capital shortfall

Apr 14. China's biggest banks, including Industrial and Commercial Bank of China (ICBC), plan to sell CNY 40bn (USD 5.8bn) of bonds as they seek to raise capital to comply with global rules. The bank giants will sell total loss-absorbing capacity bonds, offering a smoother way to raise capital, as they face a shortfall of up to CNY 3.7tn by 2025, according to S&P Global Ratings, which also estimates that Agricultural Bank of China, Bank of China, and China Construction Bank need to raise up to CNY 1.1tn, CNY 1.3tn and CNY 1tn, respectively. The banks aim to complete the sales by the end of the year. (SCMP)

Debt ceiling jitters drive up cost of insuring against US default

Apr 14. The price of US government default insurance has surged to its highest level in over a decade, as concerns over the political deadlock in Washington regarding the debt ceiling grow. The cost of five-year credit default swaps has reached its highest point since 2012, as investors seek protection against a potential default on US federal debt. While US Treasury Secretary Janet Yellen has warned that such a default would result in a "catastrophe", it is still viewed as unlikely. However, experts predict that the ongoing political stand-off could lead to a prolonged political impasse that upsets the markets. (FT)

Debtors, creditors agree steps to jumpstart debt restructurings (Reuters)

The junk bond market is shrinking in a new era of rising rates (Bloomberg)

Global bond markets fear billions will vanish if Japan's titans race for exit (Bloomberg)

Regulatory Updates

Andrew Bailey raises prospect of increased UK bank deposit protection

Apr 13. The Governor of the Bank of England, Andrew Bailey, has stated that the bank is working to reform the UK's deposit insurance guarantee scheme, which could lead to an increase in customer protection. Bailey indicated that the current limit of GBP 85,000 may need to be increased, as it is lower than the US limit of USD 250,000, but he cautioned that this could have cost implications for the banking sector. Bailey also noted that financial stability concerns should not prevent the BoE from keeping interest rates high to tackle inflation. The Bank is examining credit conditions when setting interest rates, a move in line with IMF recommendations. Bailey suggested that deposit insurance is not working as intended in today's world of electronic transfers and rapid bank runs. (FT)

Singapore pauses monetary tightening as Q1 growth slows to 0.1%

Apr 13. Singapore's central bank, the Monetary Authority of Singapore (MAS), has kept its monetary policy unchanged for the first time in two years following five successive tightening moves. This decision came as the country's economy recorded its slowest growth since the COVID-19 crisis. The Singaporean economy grew 0.1% YoY in the first quarter of 2023, slowing from the 2.1% growth in the previous three months. Singapore's monetary policy is based on exchange rates, allowing the local dollar to rise or fall against the currencies of major trading partners to stabilize prices. The MAS expects core inflation to average between 3.5% and 4.5% for 2023. (Nikkei Asia)

China is willing to implement debt disposal framework - central bank governor (CNA)

Global financial regulator calls for tougher rules after bank panic (FT)

Published weekly by Credit Research Initiative – NUS | Disclaimer
Contributing Editors: Amrita Parab, NUS-CRI Market Monitoring Team