



Evergrande and China's Real Estate Sector: Potential Spillovers and Contagion¹

November 3, 2021

I. Introduction

1. **On September 23, China's Evergrande Group missed an interest payment of USD 83 million on a USD 2 billion dollar-denominated bond maturing in March 2022, triggering concerns in international financial markets.** It was the culmination of long-standing financial problems within the Group, which had seen it miss debt payments of USD 13 billion back in 2020. On September 29, Evergrande announced that it would sell almost 20 percent stake in Shengjing Bank for USD 1.5 billion to a state-owned asset management company, which will be used to pay its debt to the bank. Evergrande subsequently missed another bond coupon payment on September 30 and a third on October 12, but was able to make payment on its September 23 and 30 obligations just before the end of their respective one-month grace periods. Three other smaller real estate developers have since disclosed cash flow issues.

I. Backdrop

2. **Evergrande is the second largest property developer in China by sales.** It is incorporated in the Cayman Islands, headquartered in Shenzhen, and listed on the Hong Kong Stock Exchange. While real estate development is the core business of the Group, its other businesses encompass electric vehicles, beverage, finance, healthcare, culture, and tourism. Evergrande also owns a football club. According to the Group's interim report as of June 2021, the company had CNY 2.38 trillion (USD 369 billion) in assets and 1.96 trillion (USD 303 billion) in liabilities, hired 123,276 employees, and operated 798 projects in 234 cities. Its assets amounted to 2.3 percent of GDP, while its property sales accounted for 4.6 percent of total market sales.

3. **The Group's ongoing financial problems are rooted in its business model.** Its aggressive expansion was supported by relentless borrowing during the upcycle of the property

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market—total liabilities more than quadrupled over the space of three years, from CNY 362.1 billion in 2014 to CNY 1,519.5 billion in 2017, raising its leverage ratio from 76.3 percent to 86.3 percent. The “high leverage and high turnover” strategy worked well during the upcycle and increased the Group’s profitability. However, liquidity pressures started to build up when the property market cooled in 2019. Evergrande’s liquidity situation worsened and the company’s unrestricted cash only covered 36 percent of its short-term debt as of June 30, 2021 (Table 1).

Table 1. Key Financials of Evergrande Group
(Millions of Chinese renminbi)

Item	2020 June	2021 June
Long-term borrowing	439,784	331,726
Short-term borrowing	395,687	240,049
Total debt	835,471	571,775
Accounts payable	621,715	666,902
Unrestricted cash	140,747	86,772
Restricted cash	63,892	74,855
Total cash	204,639	161,627
Net debt	693,021	483,399
Shareholder's equity	316,455	411,041
Net debt to equity	219.0	117.6
Total assets	2,299,097	2,377,575
Total liabilities	1,982,642	1,966,534
Liability-to-asset ratio	86.2	82.7
Cash (unrestricted)/ ST debt	35.6	36.1

Sources: Evergrande; and AMRO staff calculations.

4. **Evergrande has a very complex financing structure.** It has sourced funding through various channels and products, ranging from bank loans, bond and equity issuances—both onshore and offshore—shadow banking products, to payables to contractors and suppliers, and deposits from presales. Its financial statements show that the company relies heavily on short-term funding and non-standard loans. As of June 30, 2021, the group had CNY 571.8 billion (USD 89 billion) in interest bearing debt, with 42 percent in short-term borrowing. Moreover, the Group also has CNY 666.9 billion (USD 103 billion) in accounts payable, which are also short-term liabilities. Evergrande has reportedly missed payments on USD 6.2 billion of retail wealth products more recently, suggesting that the company may also have sizeable financing through off-balance sheet items.

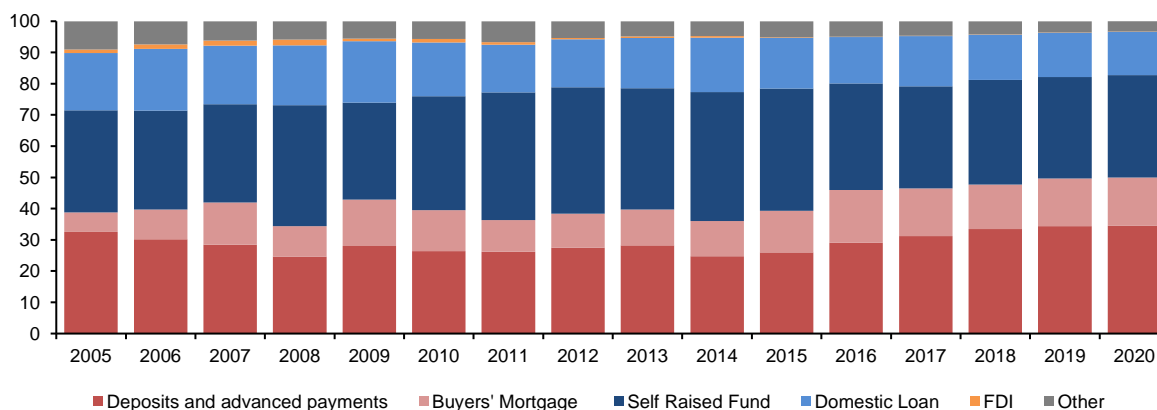
5. **The company had an acute liquidity event in H2 2020.** The problem was averted after a group of investors waived their right to force a USD 13 billion repayment. However, the efforts

made thereafter by the company, including accelerating sales with price discounts and selling equity stakes to reduce debt, were insufficient to avoid further problems. Liquidity and credit stresses resurfaced after Evergrande missed payments on some commercial bills in June 2021. Concerns over its debt situation were heightened by several negative events, including a Chinese court's order to freeze the company's deposits; successive downgrades by credit rating agencies; suspension of projects-in-progress due to missed payments to contractors and suppliers.

6. Tighter regulations on the property market aggravated Evergrande's liquidity crisis and exerted pressure on other highly-leveraged developers. The aim of these measures are to foster healthy development of the real estate sector and safeguard financial stability:

- The Chinese authorities rolled out the “three red lines” policy in August 2020 to cap the leverage ratio of developers and improve their debt repayment capacity. This policy targeted selected developers, wherein their financial positions are assessed against three criteria: (1) a 70 percent ceiling on liability to asset (excluding advance receipts); (2) a 100 percent cap on debt to equity; (3) a cash-to-short-term-debt ratio of at least one. If the developers fail to meet one, two, or all of the “three red lines”, they would be subject to limits on the extent to which they can increase their debt.
- Regulations on developer financing were further tightened in the second half of 2020. Investment in real estate development through trust products was banned and concentration ratios for bank loans to the real estate sector were introduced. These policies significantly narrowed financing channels, particularly for highly-leveraged developers.
- The government also tightened regulations related to housing transactions to temper rising house prices. They resulted in slowing housing sales and added further financial pressure on developers whose reliance on presales as a source of financing had been significant and increasing (Figure 1).

Figure 1. China: Sources of Funding of Real Estate Developers
(Percent of total)



Sources: Wind; and AMRO staff calculations.

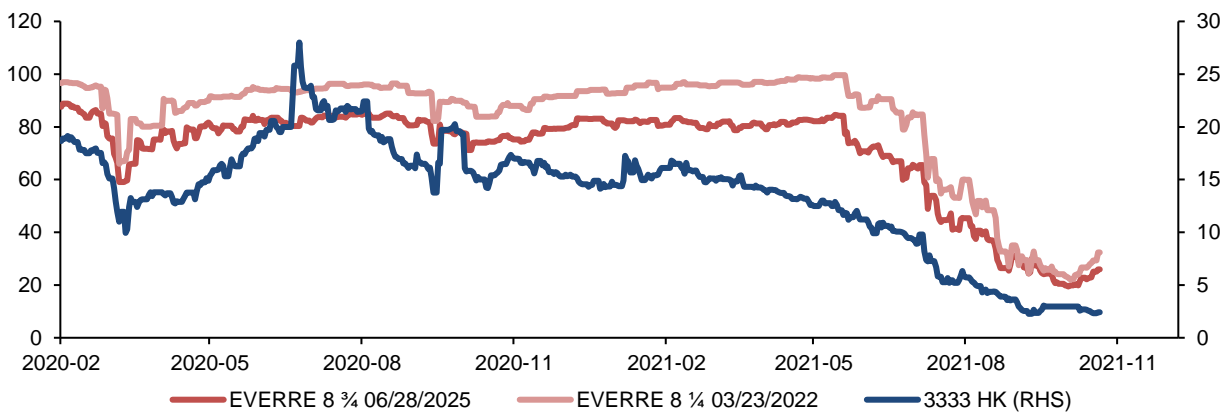
7. **Although the overall domestic growth in sales of housing remains robust, those of some weaker real estate companies have declined sharply.** In the first nine months, the overall growth in housing sales accelerated to 16.6 percent year-over-year from 3.7 percent in 2020, in part supported by the concerted efforts by real estate companies to strengthen their cash flows to meet regulatory requirements. However, the regulatory tightening raised concerns over the financial health of some of the weaker developers, leading to a sharp decrease in their housing sales. For example, the housing sales of Evergrande and Fantasia declined by 26 and 21 percent year-over-year, respectively, in August 2021.

II. Analysis

8. **Evergrande's bond and share prices have been declining sharply since end-May 2021.** As of October 31, 2021, Evergrande's US dollar bond prices had dropped by 70 percent,² while its share price had plunged by 80 percent to HKD 2.32 (Figure 2). The implied probability of default of Evergrande had peaked at close to 9 percent before declining to around 7 percent; the credit spread of its US dollar bond has widened to around 6,520 basis points (Figure 3), indicating that markets have already priced in expectations of a significant haircut.

9. **The Evergrande debt crisis also spilled over into international financial markets, over fears of default and possible contagion.** US equity markets fell by more than 2.5 percent cumulatively over two sessions on September 17 and 20, when the news of Evergrande's non-payment of its coupon obligations first broke out. Equity markets around the world also declined and EM currencies weakened. That said, markets may have overreacted at the time, given existing concerns around monetary policy tightening by the US Federal Reserve ("US Fed") heading into the September 22 Federal Open Market Committee (FOMC) meeting.

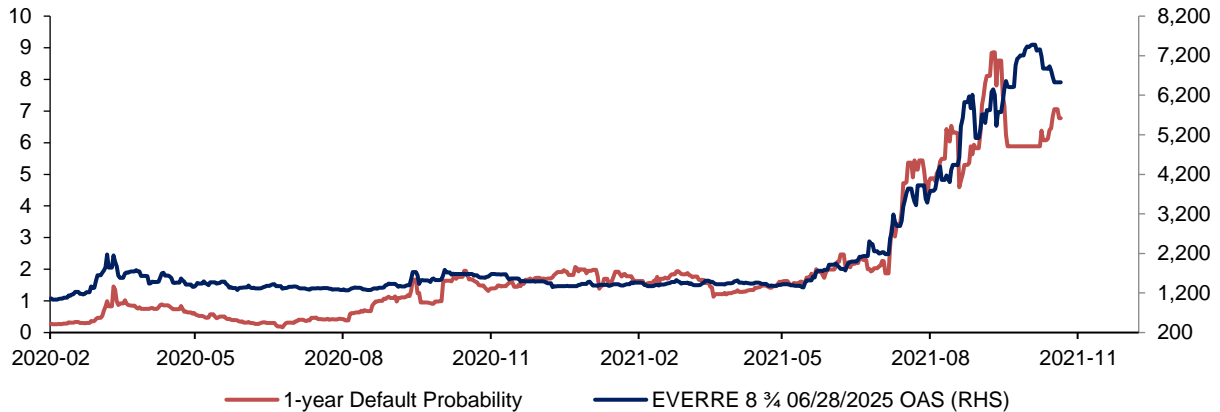
Figure 2. Evergrande: Bond and Share Prices
(US cents; Hong Kong dollars)



Sources: Bloomberg Finance L.P.; and AMRO staff calculations.

² The bond in the calculation is the US dollar denominated bond issued on June 28, 2017, with a coupon of 8.75 percent, maturing on June 28, 2025.

Figure 3. Evergrande: Probability of Default and Credit Spread of US Dollar bonds
(Percent; basis points)



Sources: Bloomberg Finance L.P.; and AMRO staff calculations.

10. **AMRO staff's assessment is that spillovers are relatively contained for now, but contagion risks remain significant.** Analyses of market price action, the financial health of China's real estate sector as a whole, and interlinkages within the global bank and insurance universe highlight the critical importance of preventing the manifestation of contagion risks. Likely spillover channels include the broad sentiment in markets (which was also influenced by expectations of US Fed tightening and idiosyncratic factors), and real and perceived relationships with Evergrande:

- Markets largely view the Evergrande event to be limited to selected firms within the sector (Appendix I):
 - Markets appear to be differentiating across firms based on their financial soundness. Share prices of other real estate firms have fallen less than Evergrande's and the impact outside the real estate sector has not been significant (Figure 4). Although correlations have increased in the majority of sectors, sensitivities have remained relatively stable.
 - To date, spillovers have largely been within the high yield space and the real estate sector. Although there has been a sharp widening in the spreads of China's US dollar high yield bonds, there is little sign of spillovers to investment grade bonds (Figure 5).
- Listed real estate firms whose debt are at risk are not insignificant in terms of the total debt of the sector, but should not become a source of systemic risk for the financial system if contagion within the real estate sector is prevented. The government would have sufficient firepower to engineer a soft landing, if necessary to avoid disproportionately adverse contagion to the rest of the economy:

- Real estate corporate debt at risk (DAR) is small relative to the economy (Figure 6).³ When measured by their interest coverage ratios (ICRs), DAR representing almost 20 percent of listed firms in the sector amounted to 8 percent of total debt in 2020, or less than 0.3 percent of GDP. When measured by their debt service ratios (DSRs), the DAR of 73 percent of listed firms in the sector amounted to more than 90 percent of total sector debt in 2020, or the equivalent of almost 3 percent of GDP.
- Some DAR firms may not have sufficient quick assets (cash or cash equivalents) to sell in order to repay the maturing principal on their short-term debt, if they are unable to roll the debt over. Although the current ratios (short-term assets over short-term liabilities) of these firms are greater than one, their quick ratios (cash and cash equivalents over short-term liabilities) are well below unity; Evergrande's ratios are substantially below the aggregate of even its DAR peers (Figure 7). When quick assets are taken into account, DSR DAR of the real estate fell to 32 percent of total debt in 2020, or the equivalent of almost 1 percent of GDP.
- Bank loans to Evergrande's projects are predominantly by local banks (Appendix II), and typically secured by land or other collateral:
 - Loans to Evergrande are a small percentage of most of their Chinese lenders' total assets. Although any reverberation from shocks to these creditor banks could have wider implications for their own direct international creditors, Chinese banks largely borrow from their overseas subsidiaries, notably in Hong Kong. Contagion is estimated to be largely confined within the Chinese financial system.
 - Major international banks with significant EM businesses and a dominant presence in Hong Kong, namely, Standard Chartered and HSBC, reportedly have limited direct exposure to Evergrande ([Yiu 2021](#)), although JPMorgan analysts suggest that they could face immediate second-order effects ([White and Cohn 2021](#)).
 - There is no Evergrande project of note in the ASEAN region. More generally, ASEAN banks have limited exposures to the real estate sector in China. The exposures of Thai and Malaysian banks to China are reportedly less than 10 percent of their respective total ([The Edge Singapore 2021](#)). Separately, Singapore's banking system exposures to China's real estate sector, both directly and indirectly, are less than 1 percent of loans to non-banks; their exposures to Singapore property developers with operations in China are a further 2.5 percent of all loans to non-bank customers ([Monetary Authority of Singapore 2021](#)).

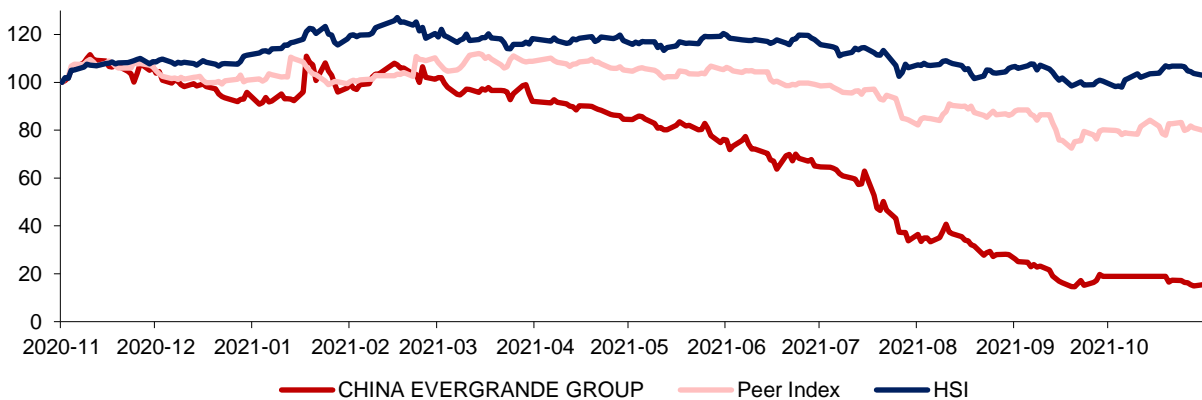
11. Lenders and investors will likely remain jittery as default fears surrounding other real estate developers grow. Fantasia Holdings Group missed its payment on maturing dollar bonds in early-October; similarly, Xinli Holdings and Modern Land failed to repay their debt in mid- and late-October, respectively. Evergrande itself will need to make large bond repayments in March and April 2022 (Figure 9). Outstanding loans by China's banks to land and real estate developers amount to CNY 23.5 trillion, or 23 percent of 2020 GDP, while Nomura estimates

³ See Ho and Ong (forthcoming) for discussion on methodology.

suggest that these developers owe some CNY 33.5 trillion through various debt instruments, excluding “other obscure financing channels” ([Shen, Jones, and Jim 2021](#)).

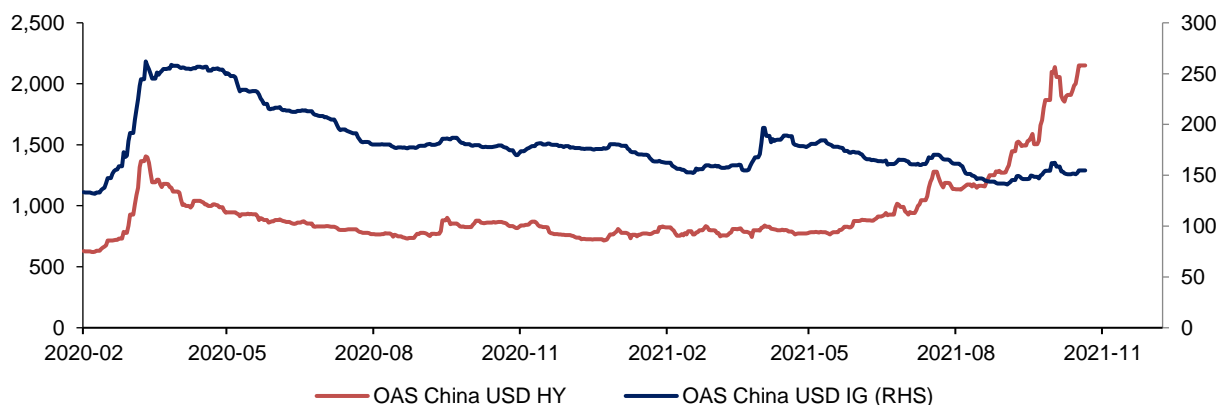
12. **Wealth management products (WMPs), which include some trust products, are key funding vehicles for some real estate developers in China, but tend to be complex and opaque.** Some are off balance-sheet items, while others are on balance-sheet items that may be recorded under equity. Consequently, they are not fully reflected in the usual debt metrics, further complicating the actual debt situation of those developers. The creditors are diverse, involving banks, nonbank financial institutions, as well as retail investors, and the intricate interlinkages among ultimate creditors, intermediaries, and borrowers are very difficult to disentangle. Hence, the large number of retail investors may also be exposed to potential contagion risks. That said, it is likely that the tightened regulations on WMPs in recent years have resulted in lower WMP- and trust-related risks.

Figure 4. China: Equity Market Spillovers
(Index October 19, 2020 = 100)



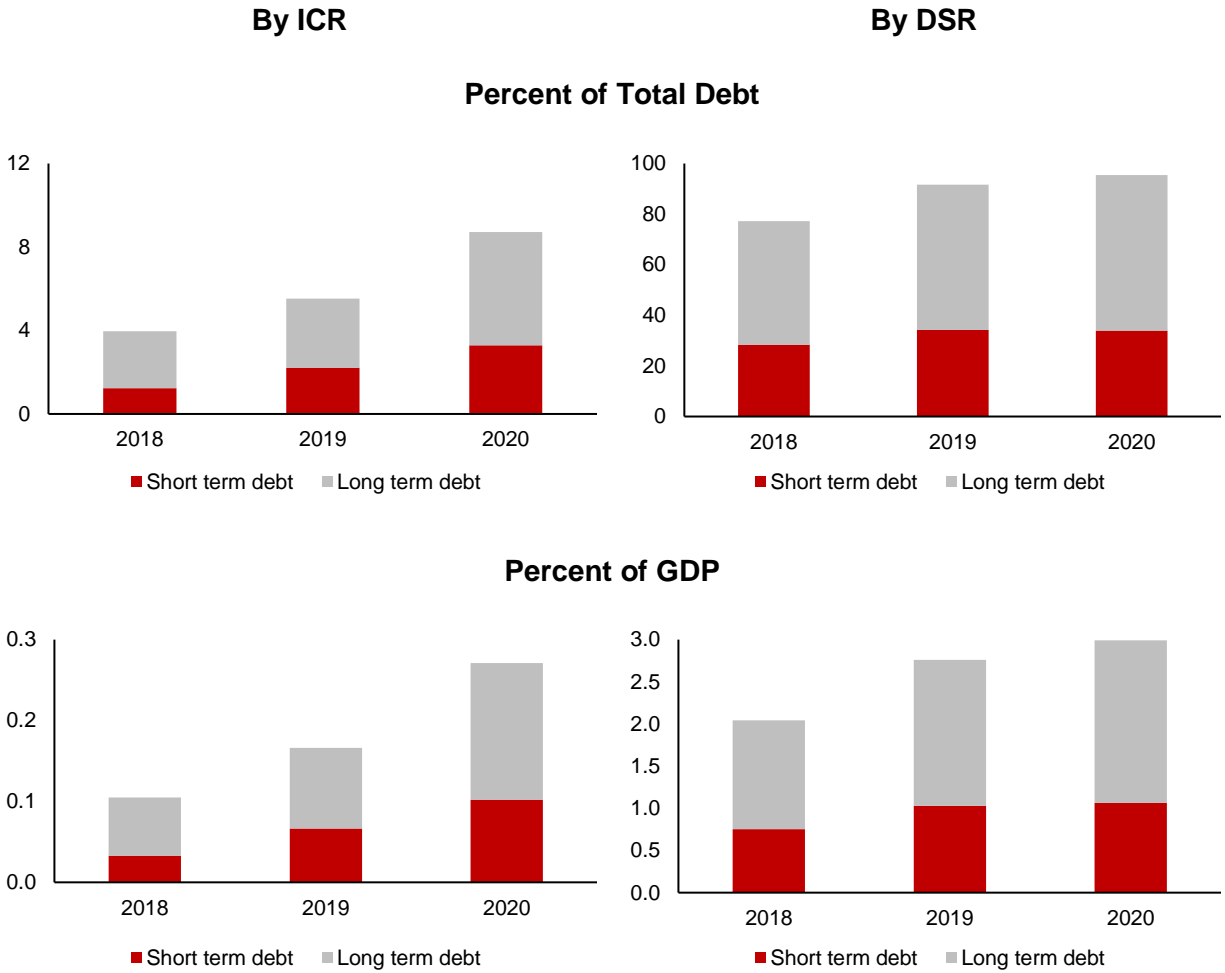
Sources: Bloomberg Finance L.P.; and AMRO staff calculations.

Figure 5. China: Credit Spread of US Dollar Corporate Bonds
(Basis points)



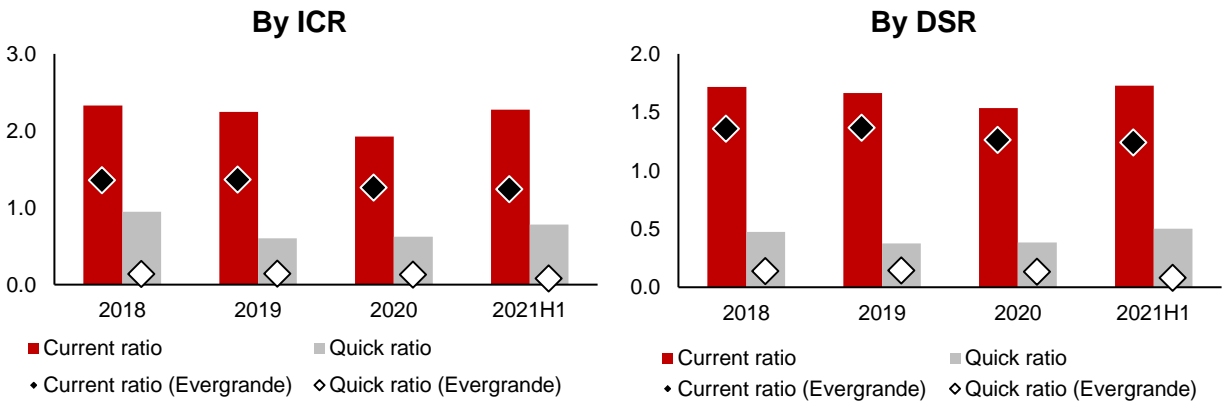
Sources: Bloomberg Finance L.P.; and AMRO staff calculations.

Figure 6. China: Actual and Projected Debt at Risk of Listed Real Estate Firms



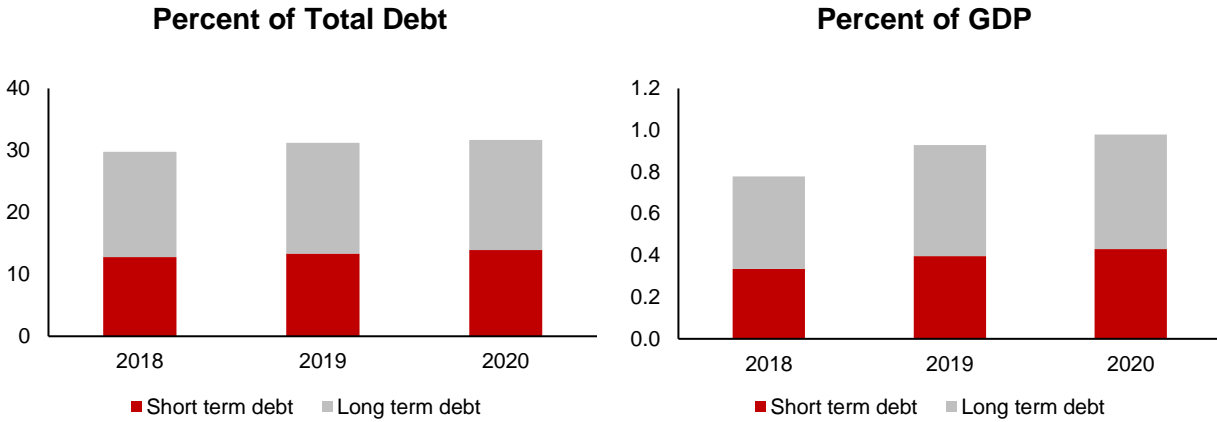
Sources: Bloomberg Finance L.P.; and AMRO staff estimates.

Figure 7. China: Current and Quick Ratios of DAR Listed Real Estate Firms (Percent)



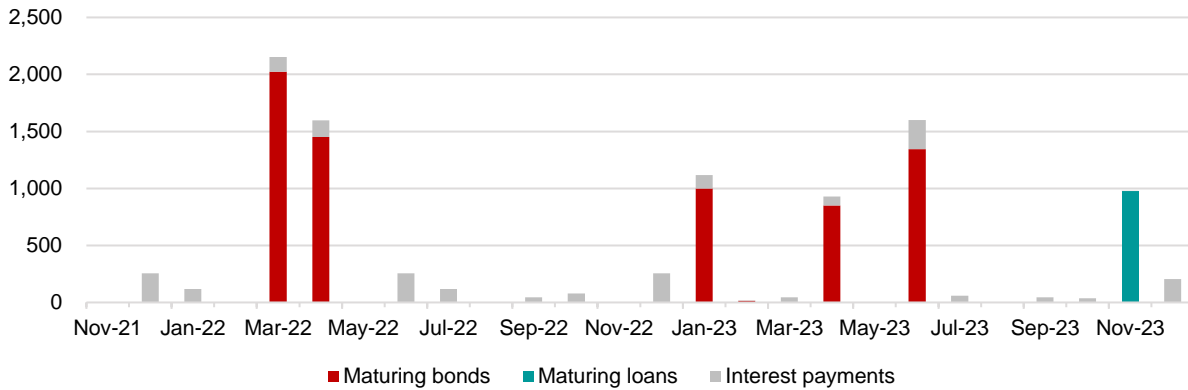
Sources: Bloomberg Finance L.P.; and AMRO staff estimates.

Figure 8. China: Debt at Risk of Listed Real Estate Firms after Taking into Account the Availability of Quick Assets



Sources: Bloomberg Finance L.P.; and AMRO staff estimates.

Figure 9. Evergrande: Forthcoming Debt Service Payments (Millions of US dollars)



Sources: Bloomberg Finance L.P.; and AMRO staff calculations.

13. **Efforts to deleverage the real estate sector should continue to foster its financial health.** The recent debt events at some real estate developers should not undermine the authorities’ efforts to strengthen the long-term financial conditions of the sector as a whole. The sector’s consolidation will likely be painful for some developers in the short-term, but will be positive for its long-term health and beneficial for overall financial stability. Along the way, it is also important for the authorities to mitigate any contagion risk that may arise from the failure of nonviable developers and ensure their orderly exit.

Appendix I. Evergrande: Impact on Financial Market Volatility

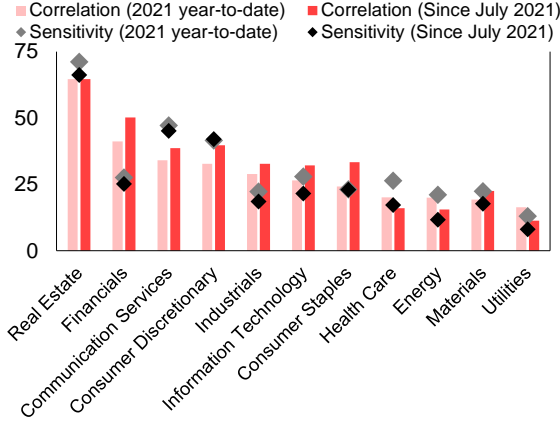
Unsurprisingly, real estate stocks in both China and Hong Kong have been most sensitive to Evergrande's stock price. Financial sector stocks are the next most correlated (Appendix Figures 1 and 2), which may indicate market concerns around the health of the banking system being tied to that of Evergrande's (and more generally, the real estate sector). The correlation of consumer discretionary stocks to Evergrande has also increased recently. The wealth effect (due to a drop in property prices, probably even stocks) of the Evergrande problem could be the reason behind the increased correlation. The effect on ASEAN equity markets has been similar—the correlation with Evergrande's stock price has increased but the sensitivity has not seen a material increase (Appendix Figure 3).

The correlation and sensitivity ("beta") of exchange rate (FX) and credit default swap (CDS) markets to Evergrande stock prices have grown stronger (positive to more positive and negative to more negative). A large part of these transmissions is through the broad risk backdrop, which has nevertheless been fragile, owing to expectations around the US Fed's monetary policy stance. The results have also been affected by idiosyncratic factors during recent sessions.

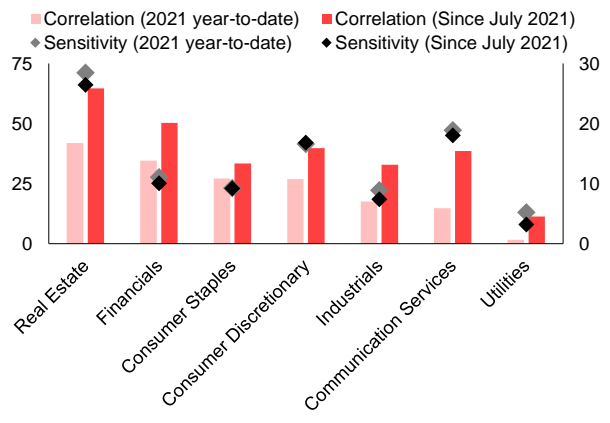
- In FX space, the spillovers were strongest for the Thai baht, Malaysian ringgit, Singapore dollar, and Korean won, although some of the observed weaknesses could also be attributed to domestic factors (Appendix Figure 4).
- In CDS markets, correlations with Evergrande's stock price became stronger in most regional markets, but the lower-rated economies, along with China, saw larger increases in sensitivity—correlations and sensitivities have been negative as falling Evergrande stock price led to wider CDS spreads (Appendix Figure 5).
- For US dollar borrowing corporates, the differentiation between investment grade (IG), that is, BBB and higher, and high yield (HY), that is, BB– and lower, has been stark. IG bonds have gained, as the risks associated with Evergrande rose, while HY bonds lost. The sensitivities and correlations with Evergrande's stock price also became stronger (Appendix Figure 6).

Correlation and Sensitivity to Evergrande Stock Price (Percent)

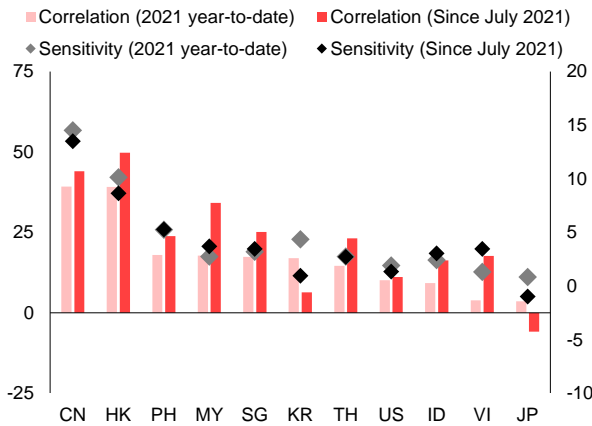
Appendix Figure 1. China Sectors



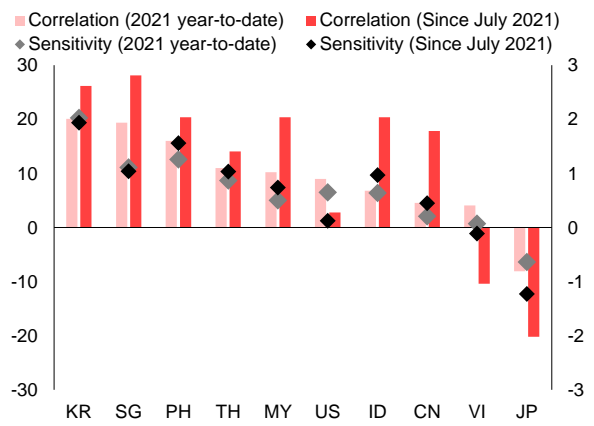
Appendix Figure 2. Hong Kong Sectors



Appendix Figure 3. Regional Equities



Appendix Figure 4. Regional Currencies



Appendix Figure 5. Regional CDS

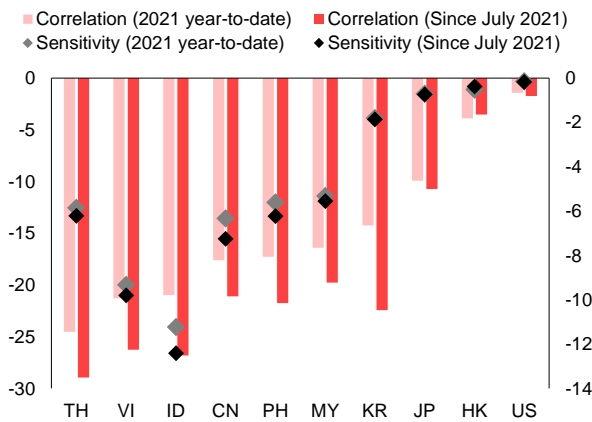
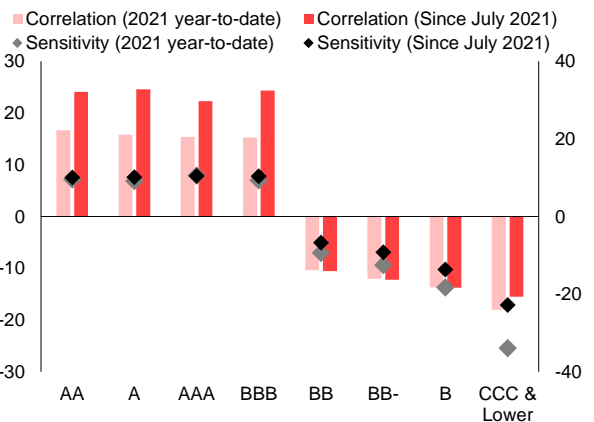


Figure 6. US Dollar Borrowing Costs for Corporates



Sources: Bloomberg Finance L.P.; and AMRO staff estimates.
Note: Data are based on daily returns; sensitivity ("beta") is represented on the right axis.

Appendix II. Financial Spillovers and Contagion

Appendix Table 1. Evergrande: Size of Loans by Largest Lenders, Latest

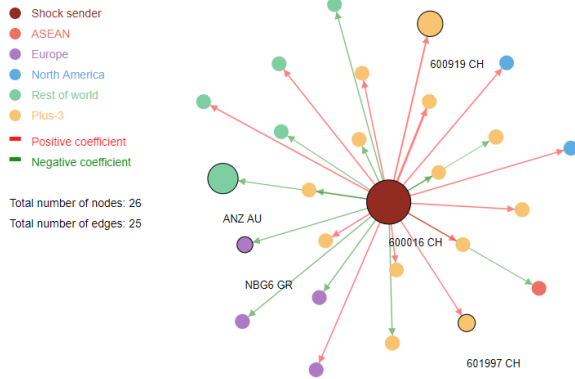
Institution	Total Assets (Billions of USD)	Of which: Total Loans (Billions of USD)	Of which: Loans to Evergrande (Billions of USD)	Evergrande Loans to Total Assets (Percent)	Evergrande Loans to Total Loans (Percent)
China Minsheng Banking Corp	1,090	620	29.3	2.7	4.7
Agricultural Bank of China	4,440	2,560	24.2	0.5	0.9
China Everbright Bank	890	500	10.5	1.2	2.1
Industrial & Commercial Bank of China	5,440	3,100	10.3	0.2	0.3
Citic Trust (Evergrande's biggest non-bank lender—100 percent owned by Citic Ltd.)	1,210	730	9.4	0.8	1.3
Shanghai Pudong Development Bank	1,260	730	9.2	0.7	1.3
Industrial Bank	1,260	650	8.1	0.6	1.2

Sources: Bloomberg Finance L.P., private sector estimates; and AMRO staff calculations.

Note: China Zheshang Bank and Evergrande-controlled Shenjing Bank (unlisted) are also reportedly among the top 10 lenders.

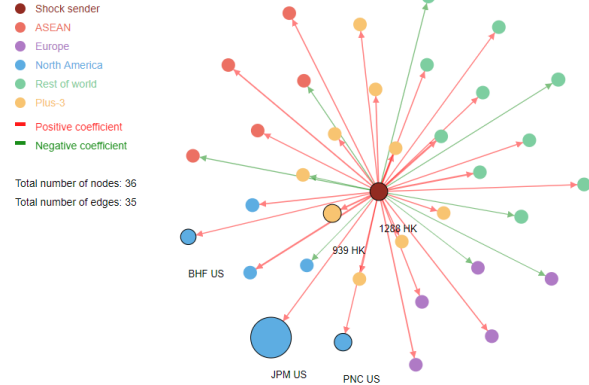
Appendix Figure 7. Major Evergrande Lenders: First Order Contagion Shocks to Own Creditor Financial Institutions

Minsheng Bank



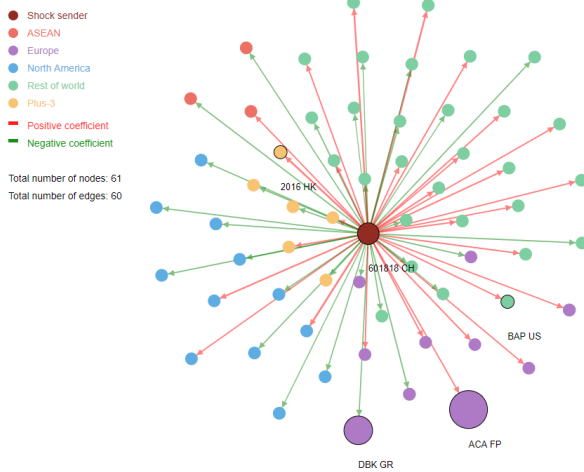
Biggest impact: ANZ Banking Group (ROW), Bank of Guiyang, Bank of Jiangsu, Nuernberger Beteiligungs AG (Europe)

Agricultural Bank of China



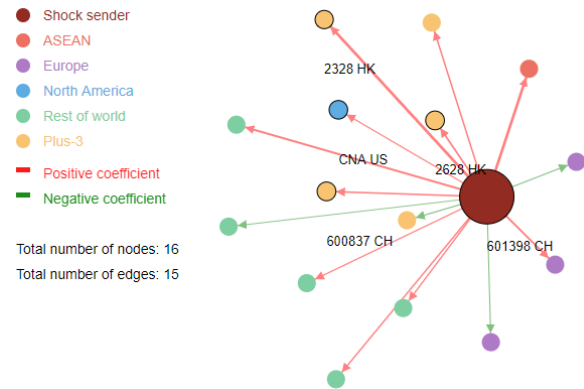
Biggest impact: Brighthouse Financial (US), China Construction Bank, JPMorgan Chase (US), PNC (US)

China Everbright Bank



Biggest impact: China Zheshang Bank, Credicorp (ROW), Deutsche Bank (Europe), Credit Agricole (Europe)

Industrial & Commercial Bank of China

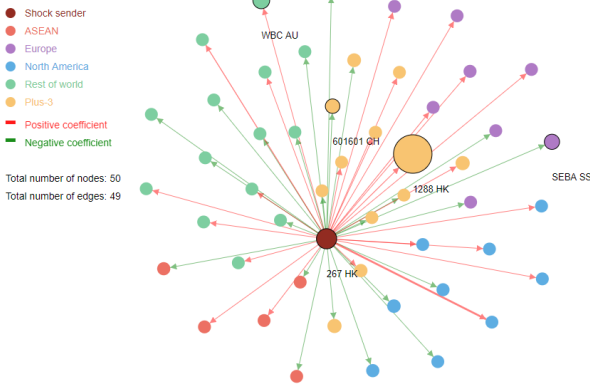


Biggest impact: China Life Insurance Co. (HK), CNA Financial Corp (US), Haitong Securities, PICC Property & Casualty (HK)

Sources: Credit Risk Initiative of the National University of Singapore; AMRO staff estimates

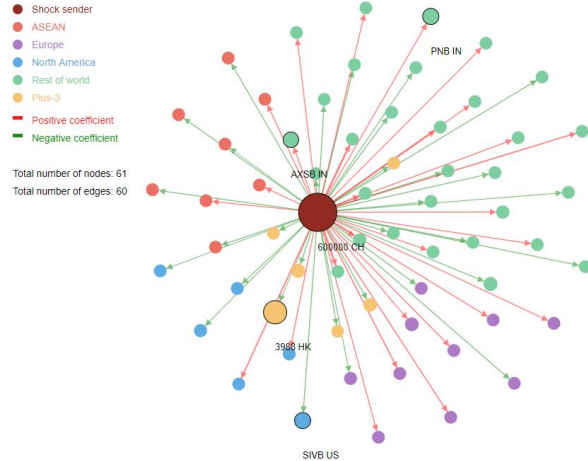
Appendix Figure 7. Major Evergrande Lenders: First Order Contagion Shocks to Own Creditor Financial Institutions

Citic Ltd.



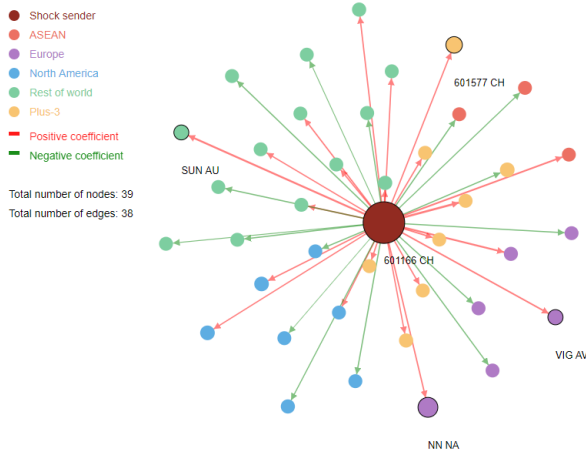
Biggest first-order shocks: **Agricultural Bank of China**, China Pacific Insurance Group, SEB (Europe), Westpac (ROW)

Shanghai Pudong Development Bank



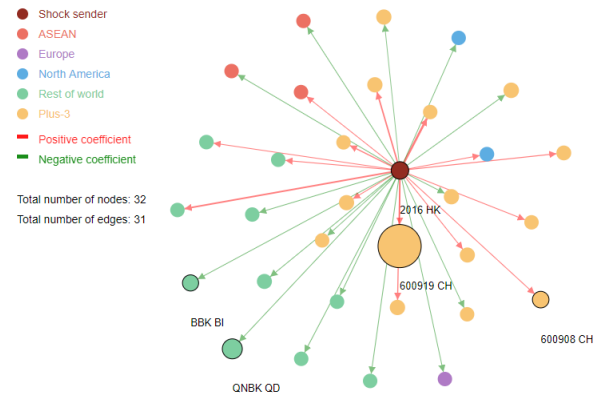
Biggest first-order shocks: Axis Bank (ROW), **Bank of China (HK)**, SVB Financial Group (US), Punjab National Bank (ROW)

Industrial Bank



Biggest first-order shocks: **Bank of Changsha**, NN Group (Europe), Suncorp Group (ROW), Vienna Insurance Group (Europe)

China Zhesang Bank



Biggest first-order shocks: **Bank of Jiangsu**, BBK BSC (ROW), Qatar National Bank (ROW), **Wuxi Rural Commercial Bank**

Sources: Credit Risk Initiative of the National University of Singapore; AMRO staff estimates.
Note: Citic Ltd. estimates are as of end-August 2021, based on data availability.

Appendix Table 2. Incremental Expected Credit Losses and “Collateral Damage” Caused by Major Evergrande Creditors from a Collective 100 Basis Point Increase in PDs as of End-September 2021, by Region
(Millions of US dollars)

Order of Contagion	Shock Sender															
	Agricultural Bank of China Ltd		CITIC Ltd		China Everbright Bank Co Ltd		China Minsheng Banking Corp Ltd		China Zheshang Bank Co Ltd		Industrial & Commercial Bank of China Ltd		Industrial Bank Co Ltd		Shanghai Pudong Development Bank Co Ltd	
	First-order	Second-order	First-order	Second-order	First-order	Second-order	First-order	Second-order	First-order	Second-order	First-order	Second-order	First-order	Second-order	First-order	Second-order
Expected credit losses from shock sender to direct creditors	3,139.61	3,139.61	7,025.16	7,025.16	4,927.82	4,927.82	6,017.37	6,017.37	240.23	240.23	29,787.41	29,787.41	6,927.29	6,927.29	4,927.82	4,927.82
<u>Contagion losses</u>																
ASEAN	0.00	0.57	0.81	2.10	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00
Europe	0.27	10.92	3.51	9.75	0.57	1.01	0.00	2.01	0.00	0.33	0.01	4.35	0.04	0.69	0.57	1.01
North America	12.72	51.83	8.87	242.81	0.00	0.12	0.08	9.51	0.00	0.50	0.00	5.97	0.25	0.40	0.00	0.12
Plus-3	182.48	384.46	4,385.08	7,869.12	12.39	13.84	825.16	1,642.94	8.59	52.97	19.73	189.52	0.00	0.32	12.39	13.84
Rest of World	0.26	3.09	2.11	9.37	2.14	2.43	1.08	2.28	0.00	0.45	0.01	0.29	2.51	4.61	2.14	2.43
China	182.42	378.46	4,052.27	7,468.41	12.39	13.81	825.00	1,639.84	8.59	52.95	19.73	189.48	0.00	0.31	12.39	13.81

Sources: SuNWEI; and AMRO staff estimates.

Note: Citic Ltd. estimates are as of end-August 2021, based on data availability.

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