The Impact of COVID-19 on China's Industries

Dan Li | Director of Corporate Ratings
Xiaoliang Liu | Director of Corporate Ratings
Lei Wang | Director of Corporate Ratings
Renyuan Zhang | Director of Corporate Ratings

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Global Economics Forecasts

Global GDP Growth Forecasts(%)

				Change from Dec 2019		Forecasted Range before the Virus
	2019	2020	2021	2020	2021	Outbreak
Australia	1.8	-4.0	5.7	-6.2	3.4	2.5-2.7
China	6.1	1.2	7.4	-4.5	1.8	5.5-5.7
India	5.0	1.8	7.5	-4.7	0.5	6.5-7.0
Indonesia	5.0	1.8	6.3	-3.3	1.2	5.0-5.2
Japan	8.0	-3.6	3.0	-3.7	2.2	0.7-0.9
Korea	2.0	-1.5	5.0	-3.6	2.7	2.5-2.7
Asia-Pacific	4.7	0.3	6.7	-4.5	1.9	
US	2.3	-5.2	6.2	-7.5	4.3	
Eurozone	1.2	-7.3	5.6	-8.5	4.6	•••
World	2.9	-2.3	5.8	-5.5	2.5	

Source: S&P Global Ratings, COVID-19 Deals A Larger, Longer Hit To global GDP, .Apr 16, 2020
Trend refers to the S&P global Economics' pre-COVID estimate of the current growth rate achievable when the economy is as full capacity and inflation is stable at the target rate. Asia-Pacific and World are PPP GDP-weight average.

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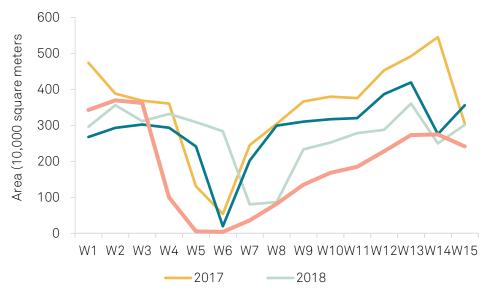
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Real Estate: Losses From Virus May Be Recoverable



- We do not expect significant changes to real estate policies and regulations.
 - "Housing is for living, not for speculation" policy has been recently reiterated.
 - Under the 'One City, One Policy' mandate, some local authorities are expected to continue to adopt marginally easing policies in their regional markets.
- Potential impact from COVID-19:
 - Short Term: affect funding chain
 - Medium Term: affect sales momentum and financing environment
 - For certain developers: short-term pressure on liquidity, inadequate inventories and increasing offshore financing costs

Sales by Area in 30 Large and Medium Cities Gradually Recovered



Source: Wind

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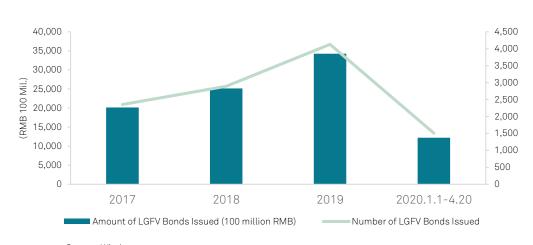


LGFVs: Roles As Financing And Infrastructure Investment Vehicles For The Government Remain Unchanged

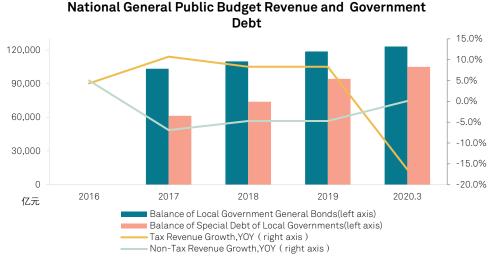


- LGFVs are expected to maintain their liquidity going forward and the scale of major regional LGFVs is likely to expand.
- Weaker revenue and increasing leverage may affect local governments' potential ability to support LGFVs.

LGFV Bond Issues Are Increasing in Frequency and Scale



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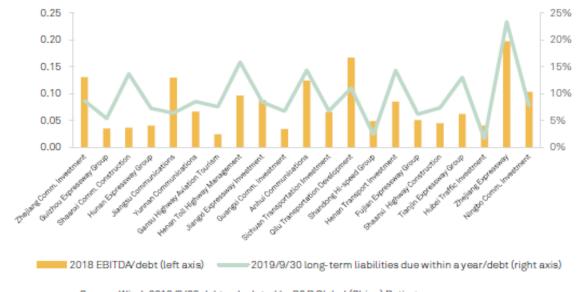


Highways: Government Support To Mitigate Rising Debt Servicing Pressure



- COVID-19 may have a relatively large impact on the operating income of the highway sector in the first half of the year.
- Some highway companies face increasing debt servicing pressure, government support is an important factor in maintaining credit quality.

Overview of Debt Pressure on Selected Highway Companies





Source: Wind, 2019/9/30 debt calculated by S&P Global (China) Ratings. Copyright @ 2020 by S&P Ratings (China) Co., Ltd. All rights reserved

Consumer and Retail: Post-Virus Recovery Expected



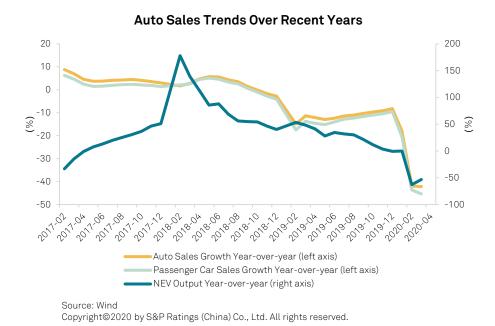
- Restaurant and hotel: SMEs may come under liquidity pressure caused by the COVID-19 outbreak. The credit quality of leading firms is likely to remain stable, because of good cash flow and external liquidity support.
- E-commerce makes up for lost sales in physical stores as an alternative channel. Competition among e-commerce platforms is set to intensify, with leading firms likely to come out on top.
- Consumer staples sector is relatively stable. Household appliances sales
 have been impacted by the pandemic in the first half of the year. We expect
 that domestic sales are likely to recover in the second half, while overseas
 sales are subject to the timing of the containment of the pandemic.
 Meanwhile, we need to monitor the potential knock-on effect on sales of
 household appliances from the real estate industry, which has also been
 impacted by the pandemic.

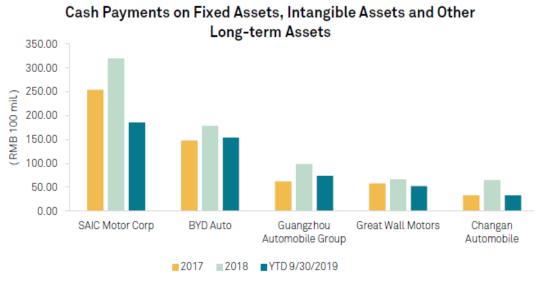


Auto: Decline In Sales May Continue



- Due to the continued decline in sales, most auto companies may see lower profitability and higher leverage.
- We expect auto companies will continue to increase R&D and M&A expenditures in smart vehicles and new energy vehicles, which may increase the pressure on their capital investments.





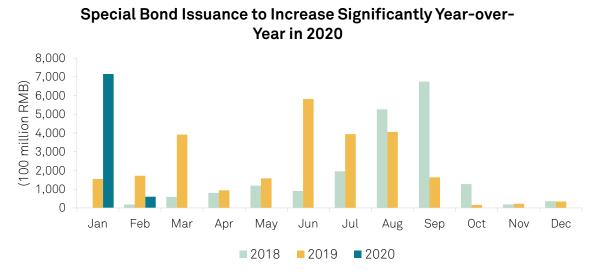
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Engineering & Construction: Stimulus Measures Potentially Positive To This Sector



- Government policies have further promoted infrastructure investment, while construction progress of projects should be closely monitored.
- Working capital management is correlated with the rate of turnover of accounts receivable and completed projects where payment remains unsettled. Meanwhile, large investment in PPP projects may increase leverage.



Comparison of Total Output Value and Accumulated Signed Contracts in Construction Sector



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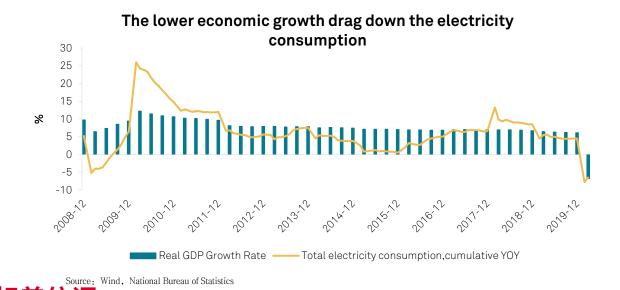
Note: Data for February 2020 is as of 19th of the month. Source: Wind, data compiled by S&P Global (China) Ratings. Copyright@2020 by S&P Ratings (China) Co., Ltd. All rights reserved.



Power Generation: Credit Quality Differentiation May Accelerate in Coal Power and Renewable Energy Sectors

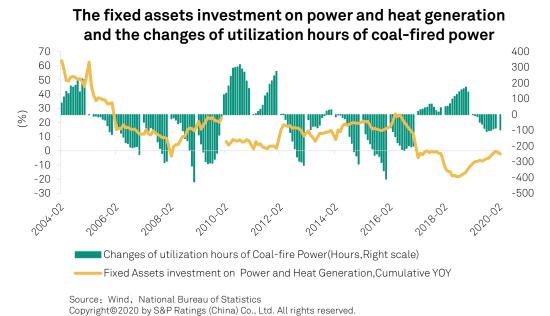


- We expect the pandemic to reduce the growth rate of electricity consumption nationwide, which could impact revenue generation of power generation companies (gencos).
- Under the current situation, we view government support as an important factor in maintaining the credit quality of power gencos. We expect the credit quality of large gencos to remain stable, while non-core power plants with weaker asset quality and profitability may receive less group support.
- Increase in capex amid reduced utilization hours may negatively impact genco's future operations.



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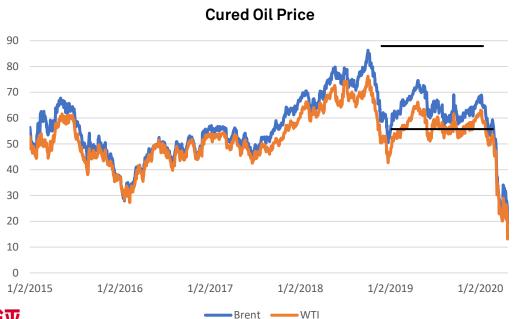
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Oil &Gas: Geopolitics Coincide With Reduced Global Demand



- We assume the COVID-19 outbreak to peak in the mid of the year, and OPEC, Russia and US will reduce output.
- Increase in investment under lower crude oil prices will increase operating pressures, while large players may benefit from stable government support.
- The price adjustment mechanism of petrol and diesel when crude oil prices fall below \$40 will allow domestic players to retain some profit.



S&P Global Ratings' Oil Price Assumption(19 March, 2020)

<u>US Dollar/bbl</u>	Brent	WTI
for the rest of 2020	30	25
2021	50	45
2022 and beyond	55	50

OPEC+ Production Cut Plan

	10 thouand bbl/day
1st May 2020-30 June, 2020	970
1st July 2020-31 Dec, 2020	770
1st Jan 2021-30 Apr, 2022	580



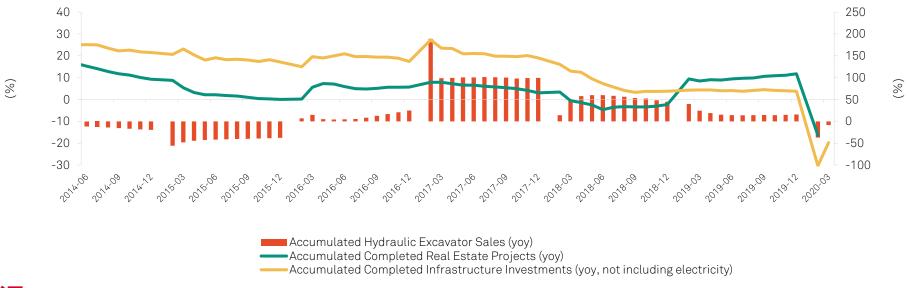
Price data in USD by 21 Apr,2020

Capital Goods: Demand for Construction Machinery Highly Reliant On Investment In Infrastructure



- Demand for construction machinery is highly reliant on new project launches and construction in the downstream.
- Demand for coal power equipment remains uncertain, and may recover as investment increases. Meanwhile, demand for renewable energy equipment is positive.
- Differences in R&D capabilities may lead to further differentiation of credit quality within the industry.

Downstream Demand and Excavator Sales Trends



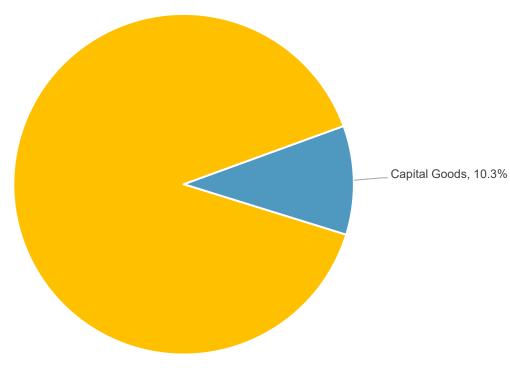


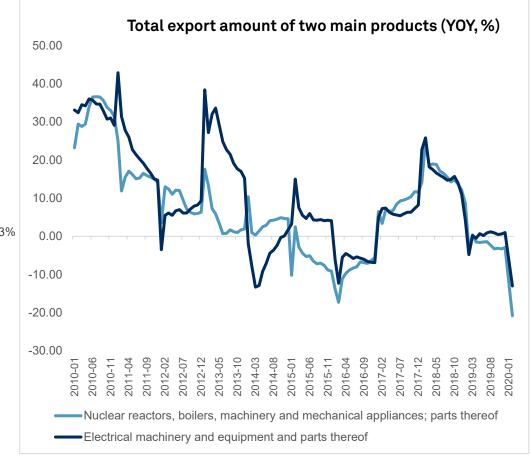
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Capital Goods: Watch Out For Shrinking Overseas Demand



Products export by China in 2019







Sources of two charts above: China customs, the category allocate based on HS Coding

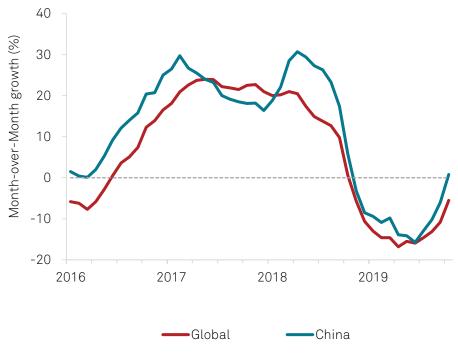
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Technology Hardware and Software: Entering Upcycle While The Pandemic's Impact Should Not Be Ignored



- COVID-19 continues to spread overseas, which may negatively impact the hardware manufacturing sector this year.
 - With the slowdown of economic growth, hardware demand for products such as cell phones and pads may decline year over year, which may impact the cash flow and credit quality of companies on the industrial chain.
- R&D costs and capital expenditure in the technology sector may continue to increase.
 - In the second half of 2020, 5G application scenarios will gradually mature, and cloud computing and other fields will continue to be key areas of investment for various technology firms;
 - Increased R&D costs and capital expenditure may impact companies' cash flow generation.

Semiconductor Sales Growth Recovering from Bottom of the Cycle



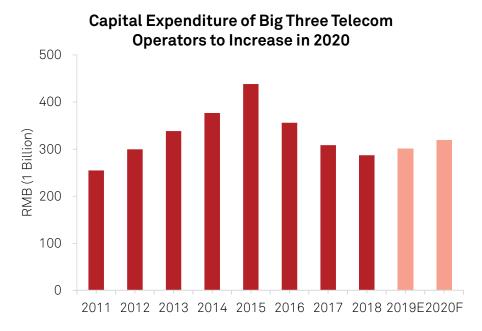
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Telecommunications: Large-scale Investment In 5G



- 5G investment is expected to peak in 2020
 - Capital investment of the three major telecom operators in in 2020 is expected to increase by about 11.6% compared with 2019, with a significant increase in 5G infrastructure investment to about RMB 180bn.
- After recent years of softer income growth, large-scale capital expenditure may put greater pressure on operators' cash flows.
- We expect the overall credit quality of the industry to remain stable, underpinned by the operators' oligopolistic status and stable cash flows.



Note: E represents estimate, F represents forecast. Source: Company Estimates. Data arranged by S&P China Ratings. Copyright© 2020 by S&P Ratings (China) Co., Ltd. All rights reserved.



Overview of Impacts to Commodity Products: Key Factors, Paths, And Different Degree of Reliance on Overseas Market



• Three key factors: COVID-19 outbreak in China, COVID-19 outbreak overseas and low crude oil prices.

Domestic Companies	Domestic Outbreak	Overseas Outbreak	Low Crude Oil Prices	Reliance on Overseas Market
Coal	negative	neutral	neutral/negative	limited
Steel	negative	neutral/negative	neutral	low
Copper	neutral/negative	neutral/negative	neutral	low
Aluminum	negative	neutral/negative	neutral	moderate
Petrochemicals	negative	negative	neutral	high
Chemical fiber, polyester, rubber	negative	negative	neutral	high
Coal chemistry, chlor-alkali	negative	negative	negative	high
Specialty chemicals and new materials	negative	positive/neutral	neutral	moderate

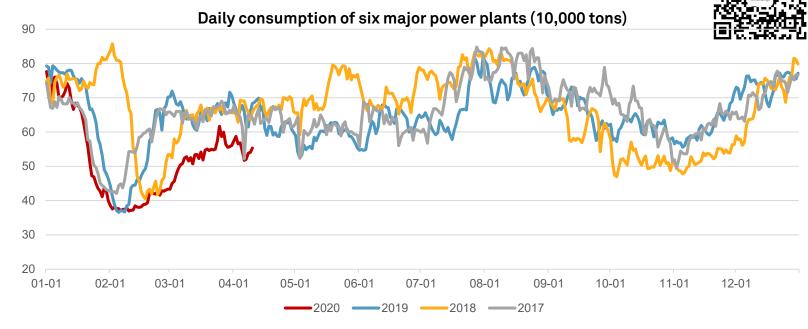


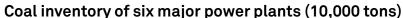
Coal: Prices Remain Low Amid Slow Supply Increase And

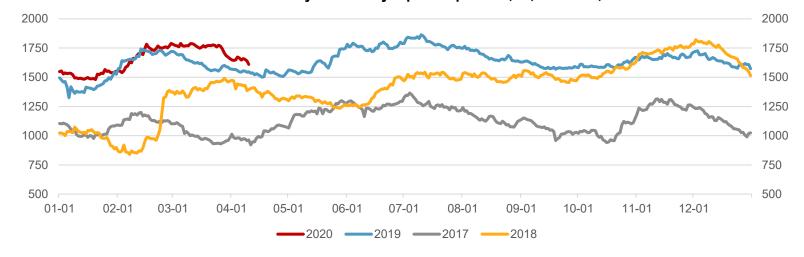
Decline In Demand

- Although there will be some pressure, we expect the overall credit quality of the coal industry to largely remain stable in 2020.
- Due to the pandemic, we expect coal supply will exceed demand in 2020, the price of thermal coal may fall compared to 2019, and coking coal prices may remain stable
- Financial risk of coal companies remains relatively high overall, with limited room to absorb the decline in coal prices.
- Coal companies are mostly provincial-level stated-owned enterprises, and are expected to receive some level of government support.







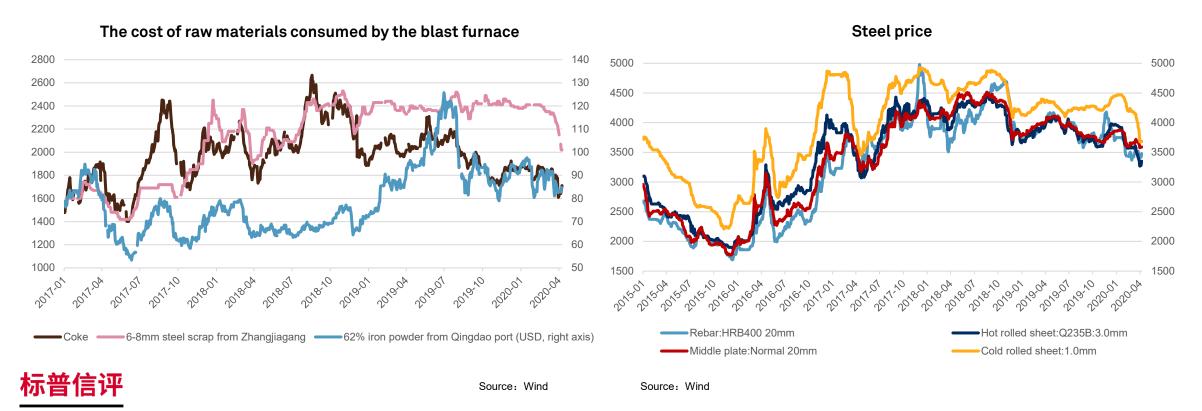


Source: Wind

Steel: Demand and Supply Balance Is Under a Level of Pressure Which Companies Can Generally Withstand

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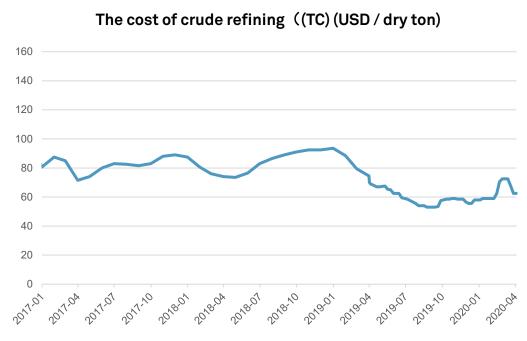
- We expect the operations and cash generation of steel companies will face some pressure in 2020, which they can
 generally withstand. Therefore the overall credit quality of the steel industry is expected to remain stable.
- After the pandemic is under control in China, the demand from downstream is recovering. We expect investment in real estate and infrastructure construction will recover more quickly than that in auto and home appliance. The recovery of demand for rebar is expected to be faster than that of sheet products.



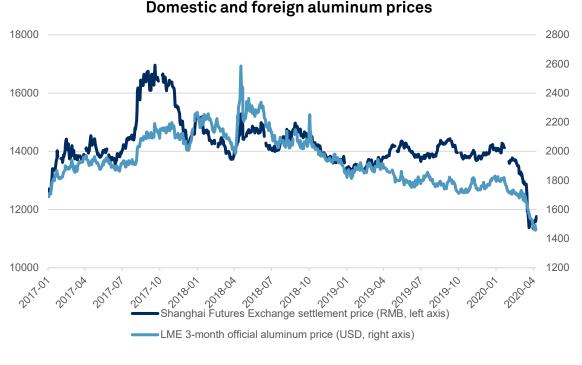
Non-Ferrous Metals: Relatively Small Impact On Copper Companies, Aluminum Companies Under Some Pressure



- We expect the overall credit quality of the non-ferrous metals sector to largely remain stable in 2020 and demand is likely to recover after a short downturn period. Metal prices are expected to increase next year.
- Most aluminum issuers enjoy relatively low electricity costs, and are expanding alongside the industrial chain and shifting production lines. The pandemic will test the liquidity of these companies.



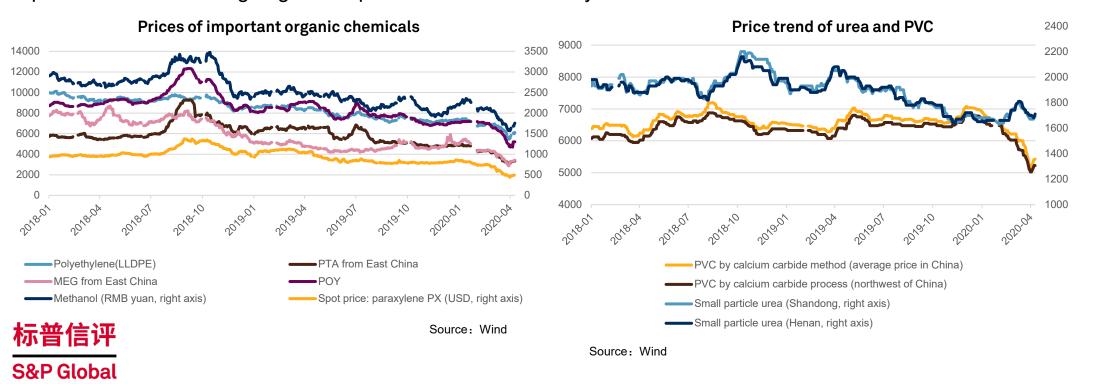




Chemicals: Double Whammy From Pandemic And Oil Price Fluctuation



- In 2020, we expect the chemicals sector will continue the downward trend that began in 2018. Competition within the sector would be more intense and credit quality would continue to differentiate.
- Low oil prices have a relatively large impact on the coal chemicals sector, which is largely unprofitable. Refining
 and chemical integration projects of chemical fiber companies are expected to produce excess supply, which
 may reduce the price differentiation of some products.
- In the current situation, companies with a single product/single industrial chain, higher leverage, or tighter cash position but still undergoing fast expansion are to be closely monitored.



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Analysts

- Dan Li
- Beijing
- +86-10-6516-6042
- Dan.Li@spgchinaratings.cn
- Xiaoliang Liu
- Beijing
- +86-10-6516-6040
- Xiaoliang.liu@spgchinaratings.cn

- Renyuan Zhang
- Beijing
- +86-10-6516-6028
- renyuan.zhang@spgchinaratings.cn
- Lei Wang
- Beijing
- +86-10-6516-6038
- Lei.Wang@spgchinaratings.cn



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