

METALS & MINING

Ferrous Chartbook

15 September 2021

Steel margins to soften only gradually

- We launch our Ferrous Chartbook to track key global supply and demand drivers for the steel sector
- Expect near-term support for steel prices from elevated coking coal costs and tight supply as Chinese steel exports ease
- Indian steel margins likely to remain elevated near term but revert to mean in longer run; we prefer TATA and JSP

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China demand-supply balance likely to remain tight in H2: Chinese steel production has reduced to 980mn tonnes (mt) on an annualised basis in Aug'21 from a peak of ~1,200mt in Apr'21. While indicators point to lower offtake in H2FY22 as the stimulus recedes, we expect demand to hold up supported by ongoing real estate and infrastructure projects.

Ex-China market tightness to ease gradually: Global demand ex-China is being supported by restocking and a recovery in construction and other industrial consumption. With production recovering above previous peak levels, we expect the supply-demand balance to slowly improve.

HRC prices supported by high coking coal costs and supply concerns: China's HRC export price has seen only a modest 9% decline from the recent peak in May'21 as the 40% correction in iron ore was largely offset by a 60% increase in coking coal price. HRC prices continue to reflect concerns over tightness in the market as China's net exports of steel have begun to moderate in the second half.

Sharp correction in iron ore prices but structural issues persist: We attribute the current sharp correction to readjustments of purchase commitments in response to lower crude production. While Australian iron ore producers need to demonstrate successful tie-in of replacement capacity, Vale needs to deliver on several milestones to sustainably raise its production capacity to the targeted 400mt by end-CY22.

Steel margins to normalise in medium term: We expect steel demand to moderate over the next six months, whereas it could take 12-18 months to restore iron ore supply and 6-12 months for coking coal. We, thus, believe steel margins will soften over the next 6-12 months with steel prices easing to US\$ 650/t by FY23.

Prefer TATA, JSP: With the steel cycle at a peak, we prioritise capital discipline over expansion projects. Accordingly, we are positive on Tata Steel (TATA) and Jindal Steel & Power (JSP) who are now focusing on responsible growth (see [Disciplined capital allocation key to improving payout, 16Aug21](#)).

Recommendation snapshot

Ticker	Price	Target	Rating
JSP IN	402	555	BUY
JSTL IN	697	795	HOLD
SAIL IN	121	150	HOLD
TATA IN	1,455	1,755	BUY

Price & Target in Rupees | Price as of 15 Sep 2021



HRC price supported by high coking coal costs

- **Prices holding up well despite correction in iron ore:** China's HRC export price has declined only 9% from the recent peak in May'21 as the 40% correction in iron ore was largely offset by a 60% increase in coking coal price. China's HRC export gross margin is also running higher at US\$ 320/t levels (vs. ~US\$ 200/t over the past five years) and continues to reflect concerns over tightness in the market as net Chinese steel exports moderate from the high levels of 74mt (annualised) seen in H1CY21.
- **Steel margins to soften over 6-12 months:** We expect steel demand to moderate over the next six months, whereas it could take 12-18 months to restore iron ore supply and 6-12 months for coking coal. We, thus, believe steel margins will soften over the next 6-12 months with steel prices easing to US\$ 650/t by FY23.
- **Key price drivers:** At this juncture, key drivers for Chinese HRC steel prices are (a) holding up of healthy demand in China, (b) easing of restocking demand outside China, (c) resolution of structural issues in the iron ore market, and (d) resolution of supply tightness in coking coal markets.
- **Key downside risks:** A key downside risk to HRC prices could be a faster-than-expected slowdown in Chinese demand. The hit could be on two counts – reduction in support from tight coking coal supply and normalisation of the China gross margin to historical levels.

Sharp correction in iron ore but structural issues persist

- **Prices down to US\$ 115/mt:** We attribute the current sharp correction in iron ore prices (US\$ 115/mt vs. ~US\$ 220/mt peak) to readjustments of purchase commitments by traders and Chinese producers in order to balance the lower crude production. However, we expect structural supply issues to continue to weigh on iron ore prices.
- **Capacity needs to be restored:** Australian majors – Rio Tinto and BHP – are executing replacement projects for 20-25% of their capacity over the next two years. During its last earnings call, Rio Tinto flagged issues related to compliance with heritage management laws and limited availability of skilled manpower. While Brazilian production has recovered after the wet season, Vale still needs to achieve several milestones and licenses to reach its targeted production capacity of 400mt by end-CY22. Key approvals to watch for are licenses to operate tailing dams at Itabira complex and Itaburucu mine, targeted for Q4CY21.

China demand-supply balance likely to remain tight in H2

- **Production declines:** In August, China's crude steel production further reduced by 4% MoM to 83.2mt (or 980mt annualised) as government authorities worked with industry to limit annual output with a view to keeping emissions under control. To deliver on the government's goal of staying below CY20 levels, crude steel production must average ~81mt over the next four months. We will be monitoring winter policies for additional mandated cuts.
- **Demand may hold up relative to production:** China's demand reduces seasonally in the second half of the year. With the easing of stimulus, new property starts and infrastructure FAI are showing signs of slowdown. Outside of construction, weaker automobile production and lower appliance production could result in softer steel demand than the first half. However, we expect that property under construction and new infrastructure projects initiated over past year will support steel demand over the next 6-12 months.

We expect demand to ease at a slower pace than production cuts, in turn lowering net exports out of China. Notably, global major AMNS in Jul'21 revised its expectation of steel demand growth in China for CY21 to 3-5% from its earlier forecast of 1-3%.

- **Net Chinese exports could moderate over rest of CY21:** China's net steel exports have come down slightly to 5mt in Aug'21. Exports over January-August stood at 48mt and remain high in relation to the 54mt of exports in CY20. Given production cuts, we expect net exports to moderate further.

Ex-China supply-demand balance to gradually ease

- **Production has recovered:** Outside China, steel production has recovered and is running above previous peaks seen in July.
- **Demand robust:** Construction demand in Europe and the US has recovered sharply and is currently supporting steel demand. While automobile production is underperforming expectations set at the beginning of the year due to semiconductor shortages, production is up YoY. In Jul'21, AMNS revised its forecast for ex-China steel demand growth in CY21 from 8.5-9.5% to 12-13%.

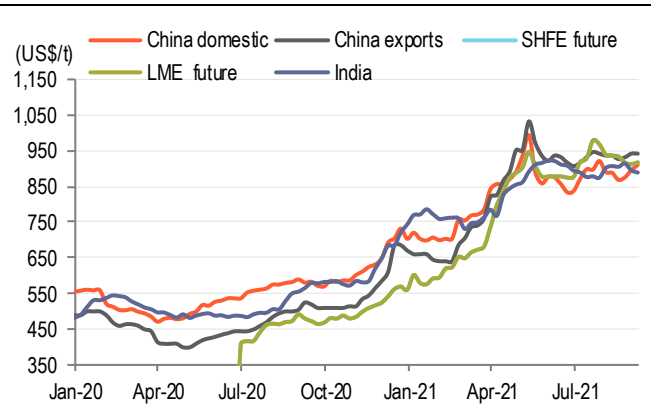
European demand is likely to undergo a seasonal decline during the September-October summer period, but underlying drivers remain supportive. Eurofer expects apparent steel consumption in the EU to grow 11.2% YoY in CY21 on a lower base in CY20 and recover to CY19 levels. The agency also expects the EU steel weighted industrial production index to rise 9.3% YoY in CY21 after a decline of 10.5% in CY20.

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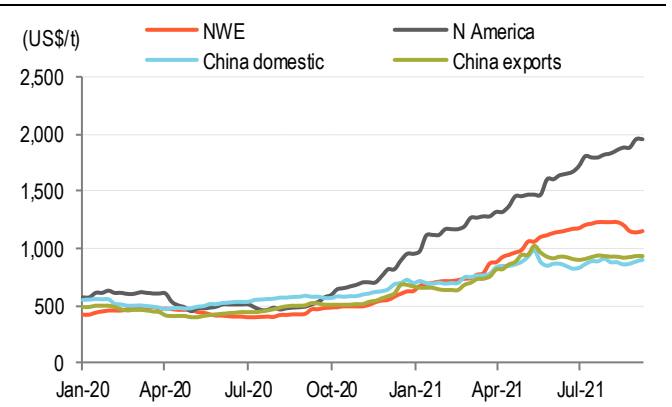
Prices

Fig 1 – HRC steel prices (China and India)



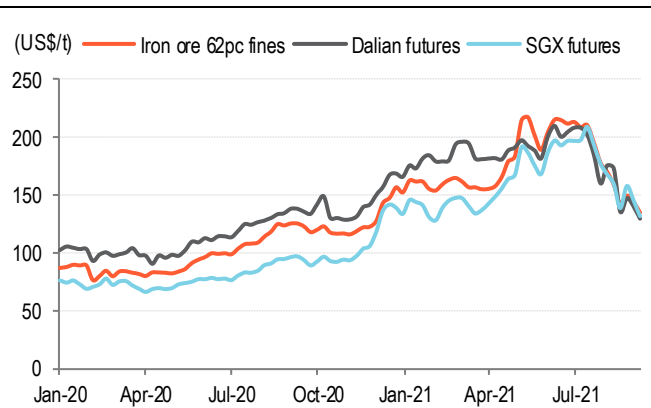
Source: Bloomberg, BOBCAPS Research

Fig 2 – Regional HRC steel prices



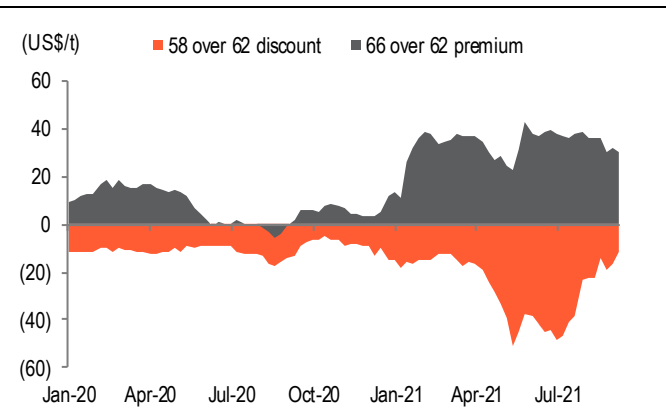
Source: Bloomberg, BOBCAPS Research

Fig 3 – Iron ore prices



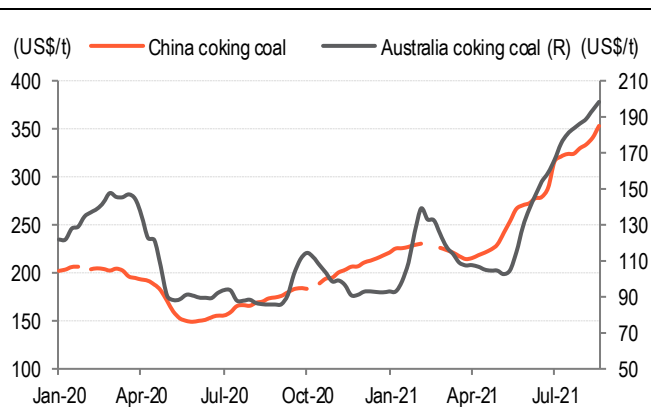
Source: Bloomberg, BOBCAPS Research

Fig 4 – Iron ore grade premia/ discount



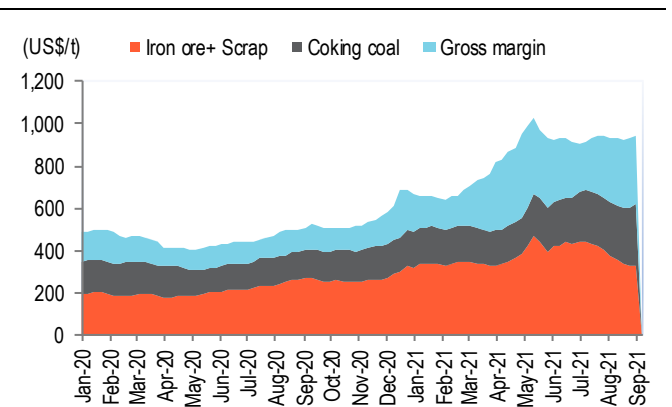
Source: Bloomberg, BOBCAPS Research

Fig 5 – Coking coal prices



Source: Bloomberg, BOBCAPS Research

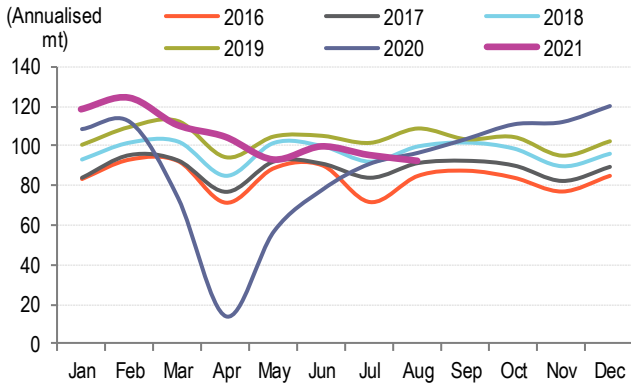
Fig 6 – China HRC gross margin proxy (on export price)



Source: Bloomberg, BOBCAPS Research

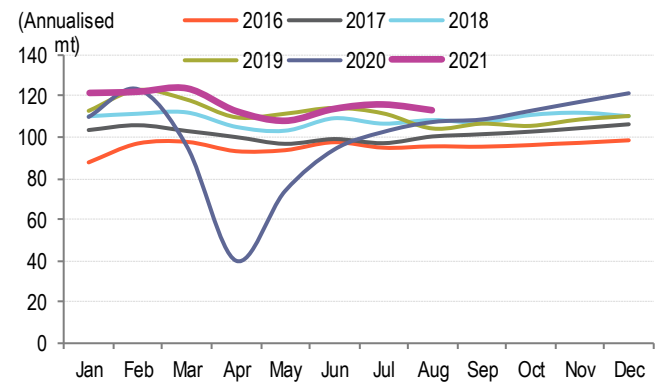
India steel demand supply and prices

Fig 7 – India steel consumption



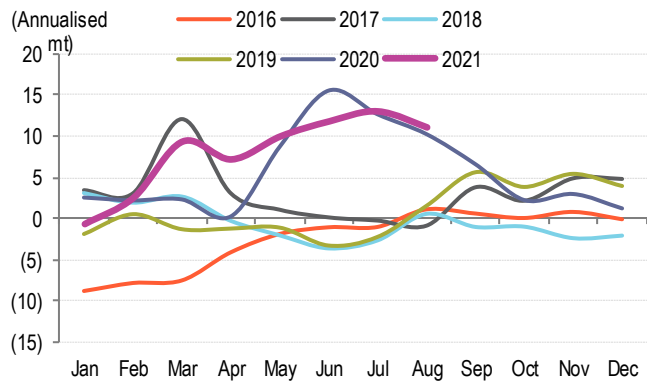
Source: CMIE, BOBCAPS Research

Fig 8 – India steel production



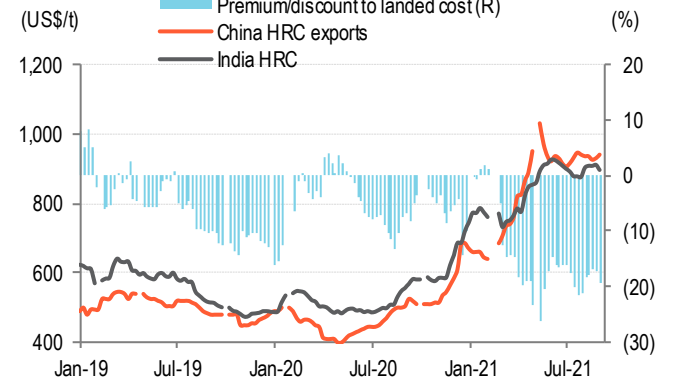
Source: CMIE, BOBCAPS Research

Fig 9 – India steel exports



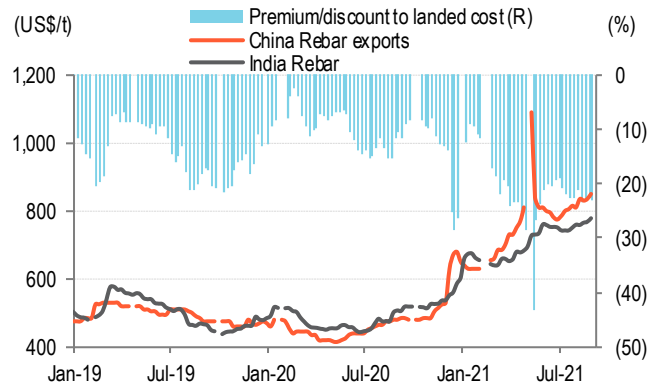
Source: CMIE, BOBCAPS Research

Fig 10 – India HRC premium/discount



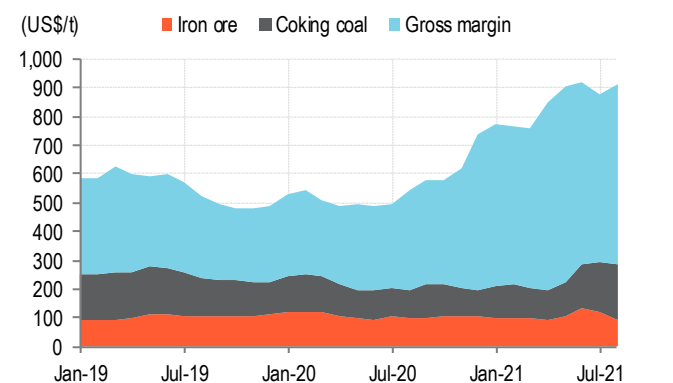
Source: Bloomberg, CMIE, BOBCAPS Research

Fig 11 – India rebar premium/ discount



Source: Bloomberg, Steelmint, BOBCAPS Research

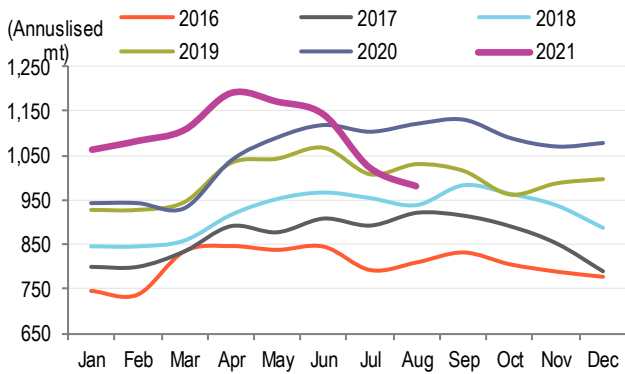
Fig 12 – India HRC gross margin proxy



Source: Bloomberg, CMIE, Steelmint, BOBCAPS Research

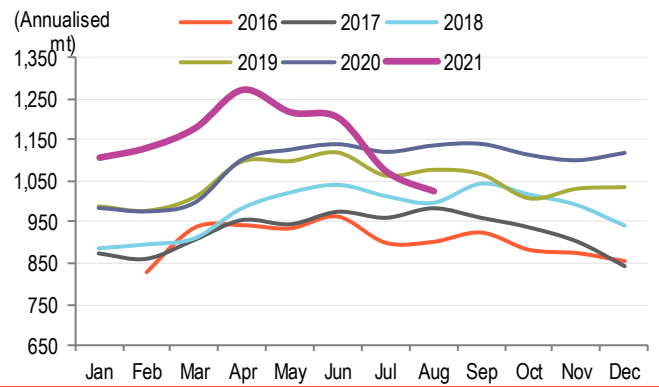
China steel production and consumption

Fig 13 – China steel production



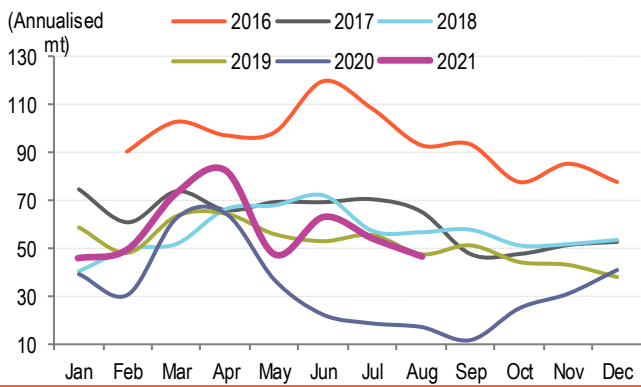
Source: Bloomberg, China National Bureau of Statistics, BOBCAPS Research

Fig 14 – China steel apparent consumption



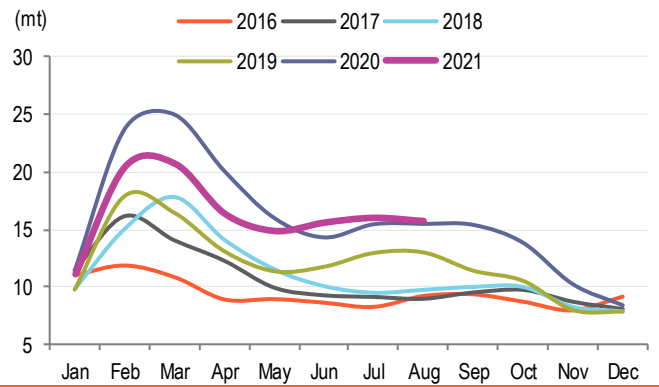
Source: Bloomberg, China Customs, China National Bureau of Statistics, BOBCAPS Research

Fig 15 – China steel net exports



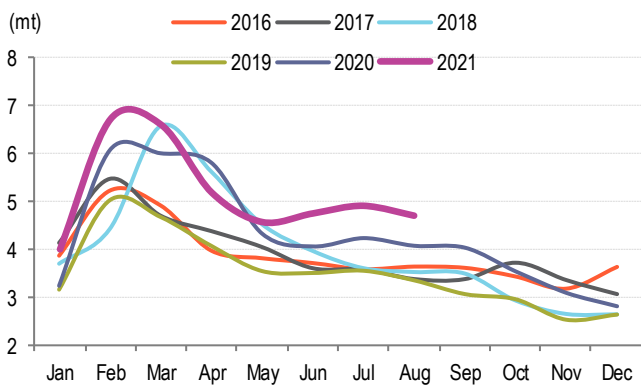
Source: Bloomberg, China Customs, BOBCAPS Research

Fig 16 – China steel inventory for market place



Source: Antaika, Bloomberg, BOBCAPS Research

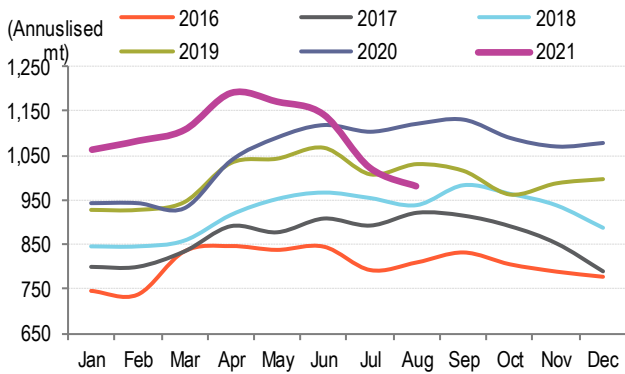
Fig 17 – China steel inventory of traders



Source: Bloomberg, Steelhome, BOBCAPS Research

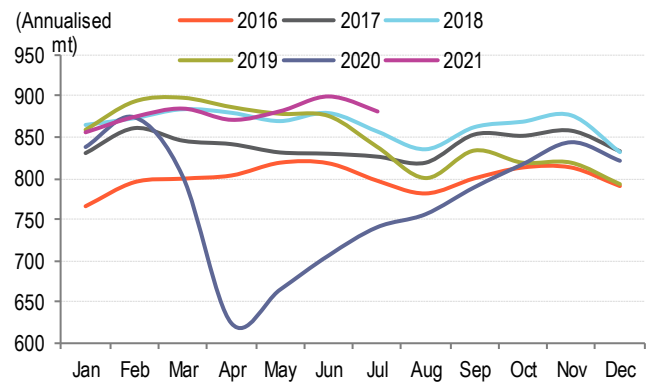
World steel production

Fig 18 – China production



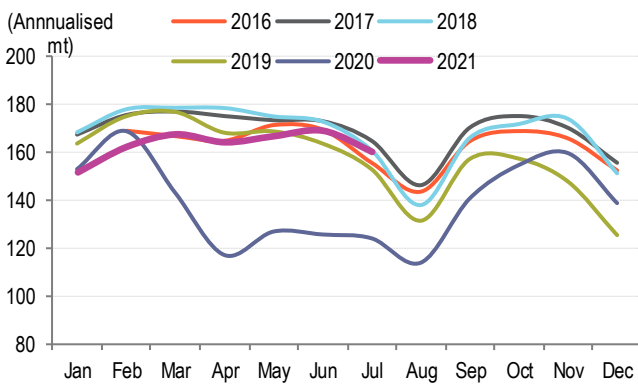
Source: Bloomberg, China National Bureau of Statistics, BOBCAPS Research

Fig 19 – Ex-China production



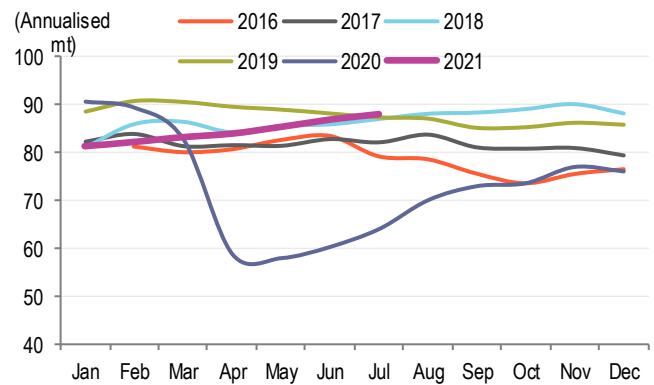
Source: Bloomberg, World Steel Association, BOBCAPS Research

Fig 20 – EU production



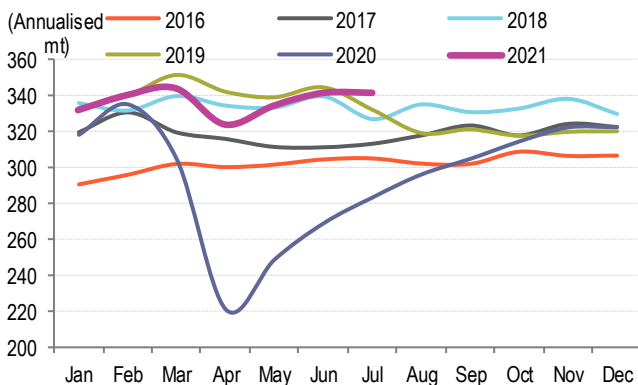
Source: Bloomberg, World Steel Association, BOBCAPS Research

Fig 21 – US production



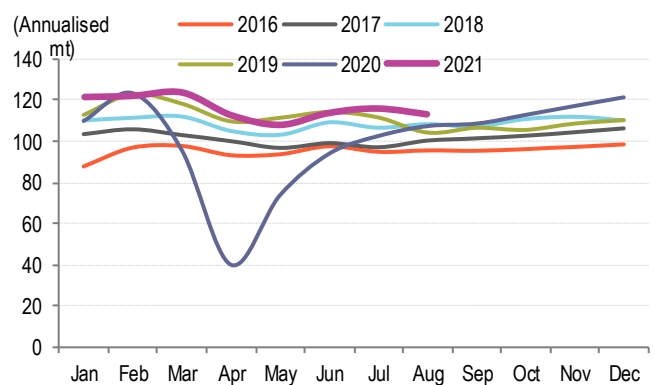
Source: Bloomberg, World Steel Association, BOBCAPS Research

Fig 22 – Asia ex China production



Source: Bloomberg, World Steel Association, BOBCAPS Research

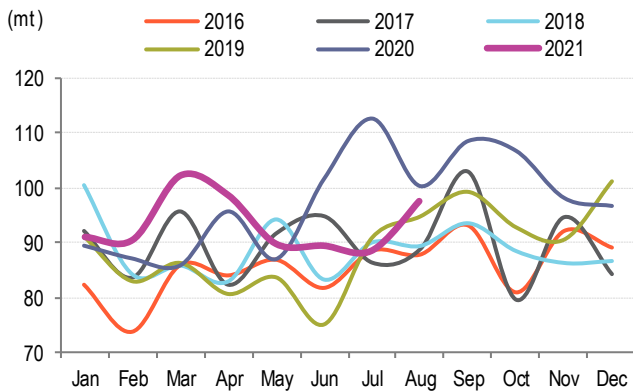
Fig 23 – India production



Source: CMIE, BOBCAPS Research

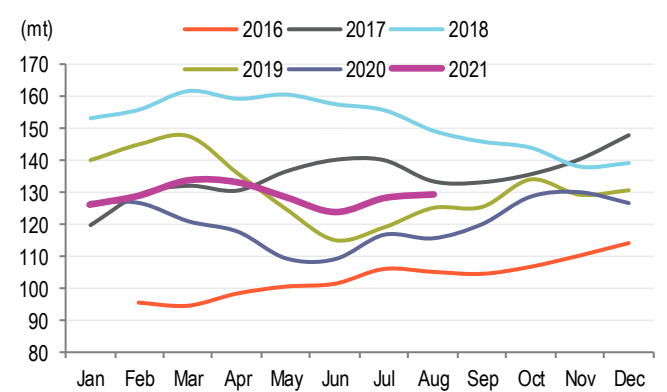
Iron ore import/ export

Fig 24 – China iron ore imports



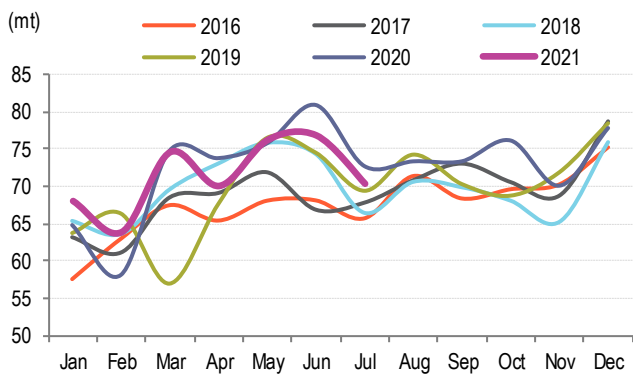
Source: Bloomberg, China Customs, BOBCAPS Research

Fig 25 – China iron ore port inventory



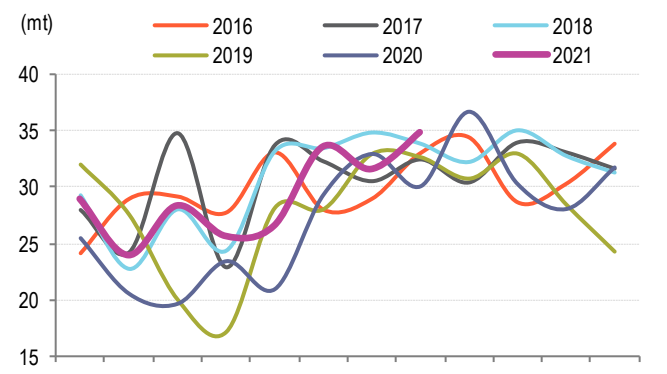
Source: Bloomberg, Steelhome, BOBCAPS Research

Fig 26 – Australia iron ore exports (monthly)



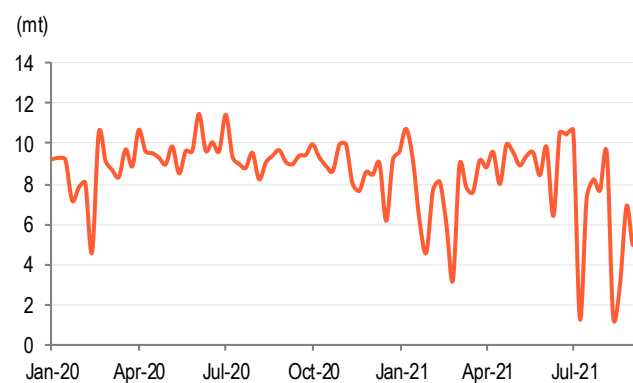
Source: Bloomberg, Australian Bureau of Statistics, BOBCAPS Research

Fig 27 – Brazil iron ore exports (monthly)



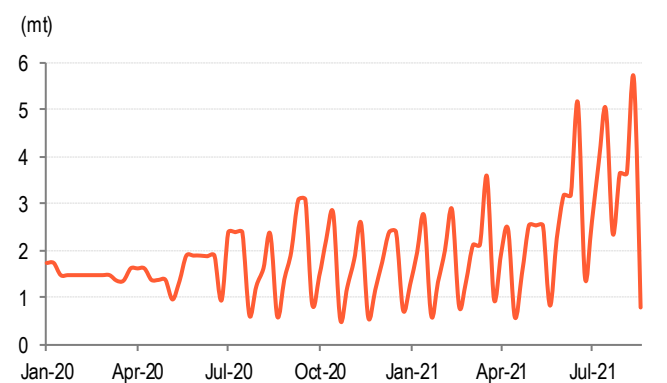
Source: Bloomberg, Brazil Ministry of Commerce, BOBCAPS Research

Fig 28 – Australia Port Headland iron ore exports (weekly)



Source: Bloomberg, Global Ports, BOBCAPS Research

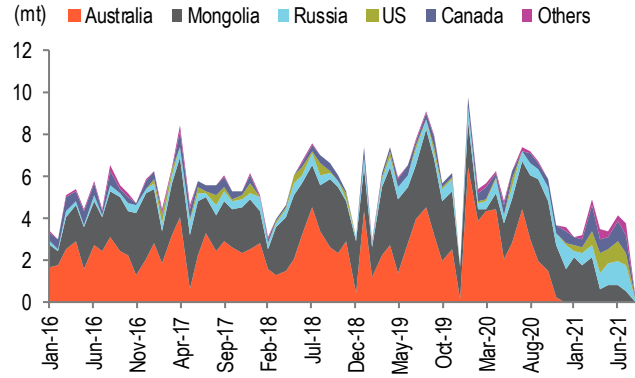
Fig 29 – Brazil iron ore exports (weekly)



Source: Bloomberg, Brazil Ministry of Commerce, BOBCAPS Research

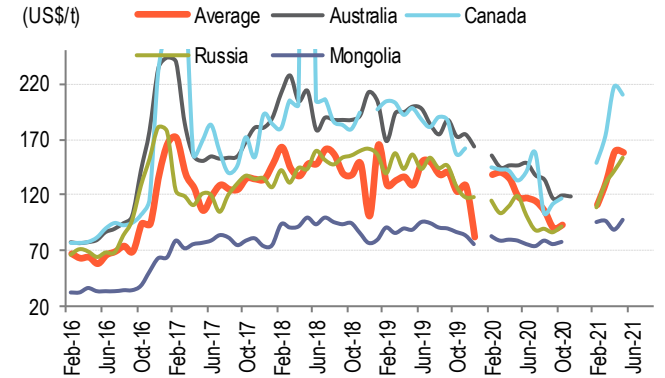
Coking coal

Fig 30 – China coking coal imports



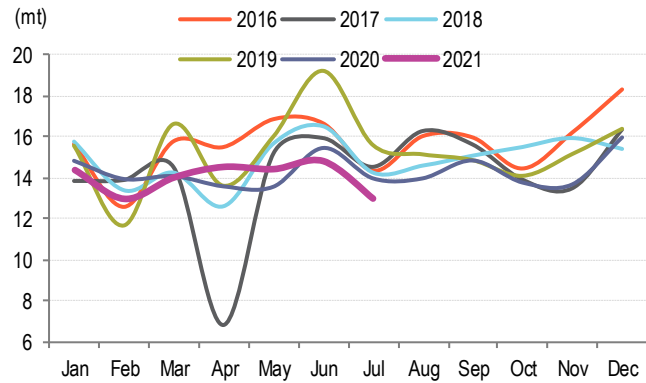
Source: xxxxxxxx, BOBCAPS Research

Fig 31 – China coking coal import price



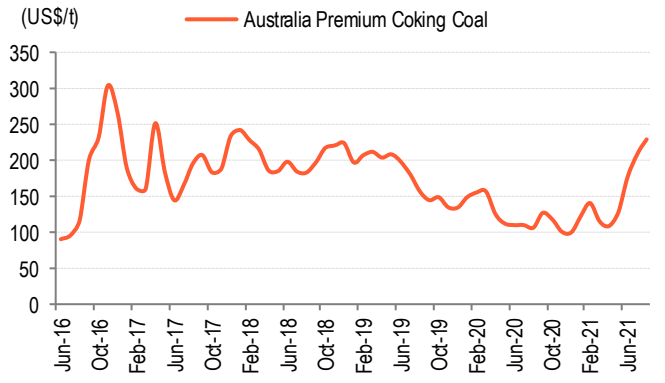
Source: xxxx

Fig 32 – Australia coking coal exports



Source: xxxx

Fig 33 – Australia coking coal FOB price



Source: xxxx

Apparent steel demand

Fig 34 – China

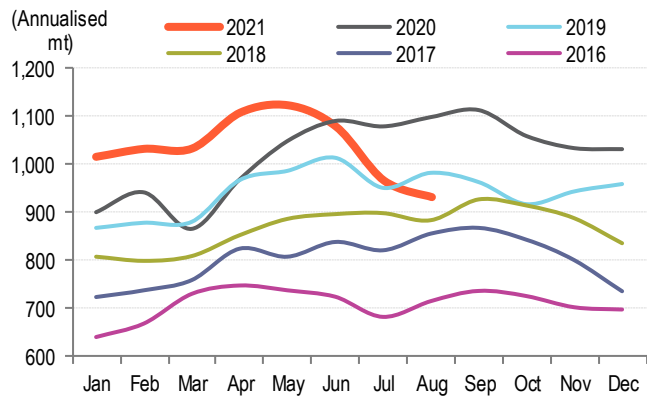


Fig 35 – Europe

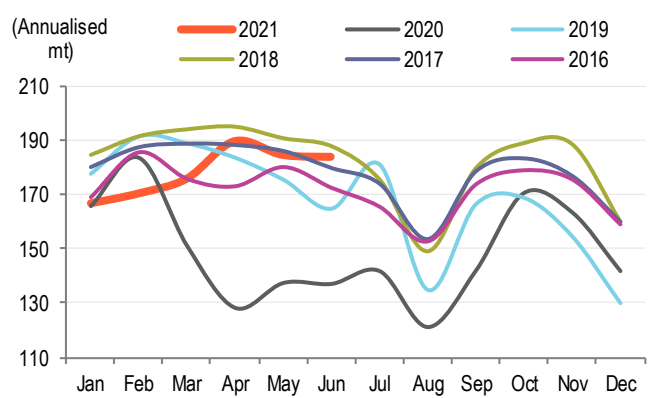


Fig 36 – US

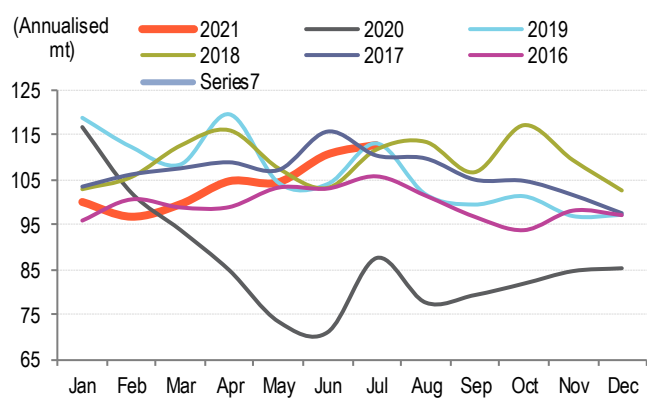


Fig 37 – Japan

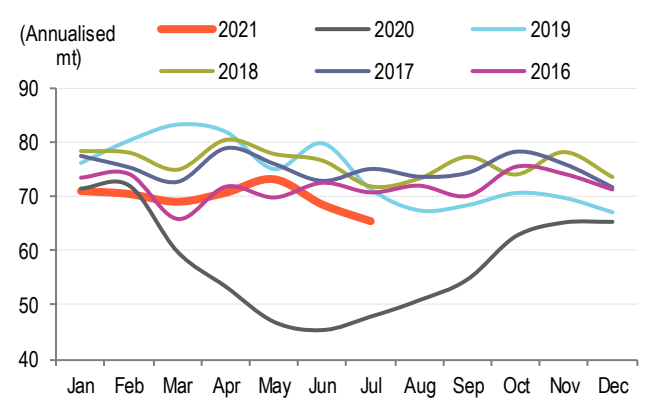
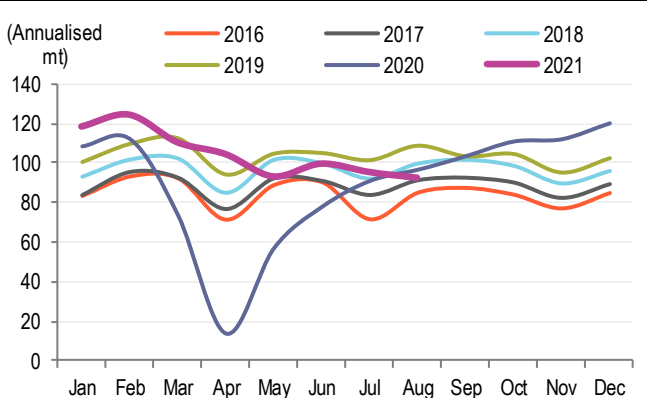
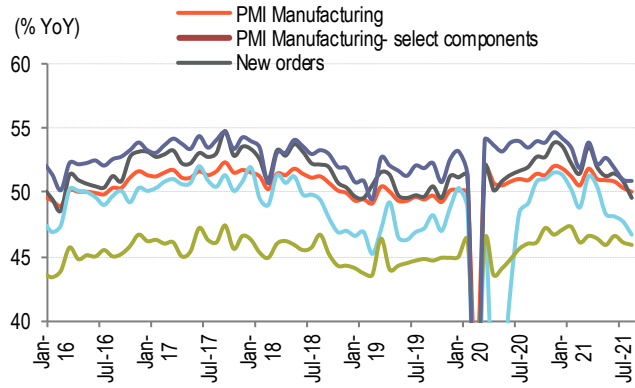


Fig 38 – India



China demand indicators

Fig 39 – China manufacturing PMI



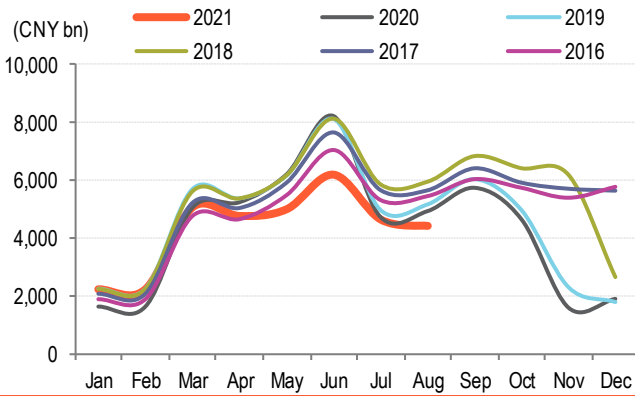
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 40 – China Industrial Production YTD growth



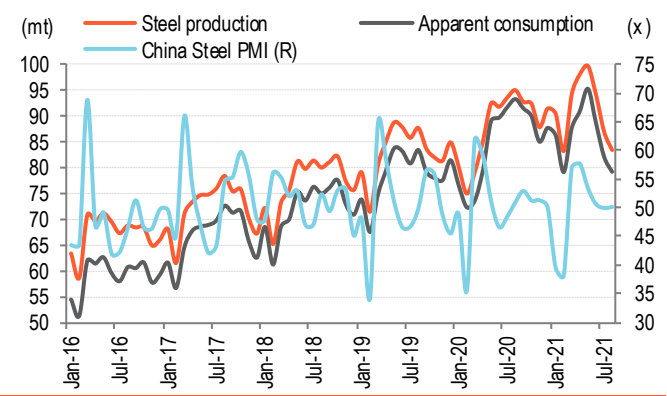
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 41 – Fig 28 – China FAI ex rural households



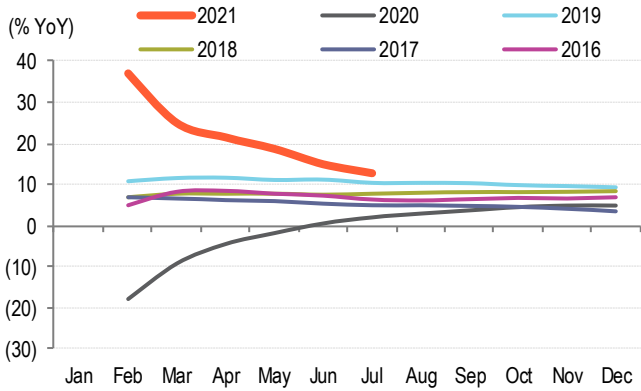
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research | FAI – Fixed Asset Investment

Fig 42 – China steel PMI



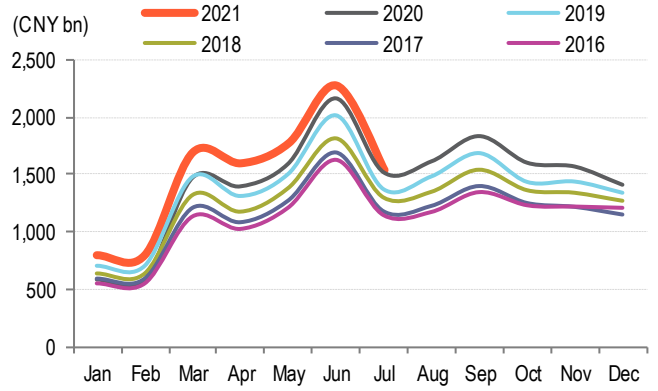
Source: Bloomberg, Steelhome, BOBCAPS Research

Fig 43 – China FAI real estate FAI, YTD growth =



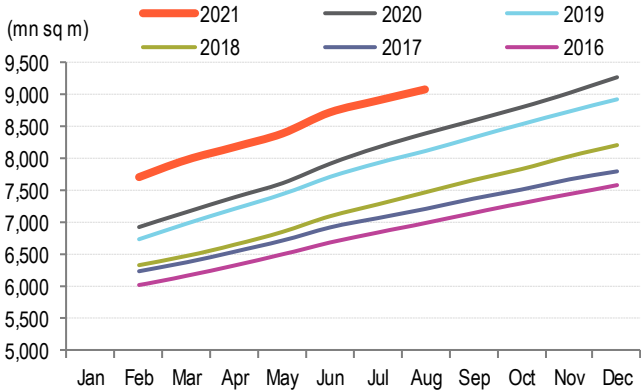
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 44 – China real estate FAI



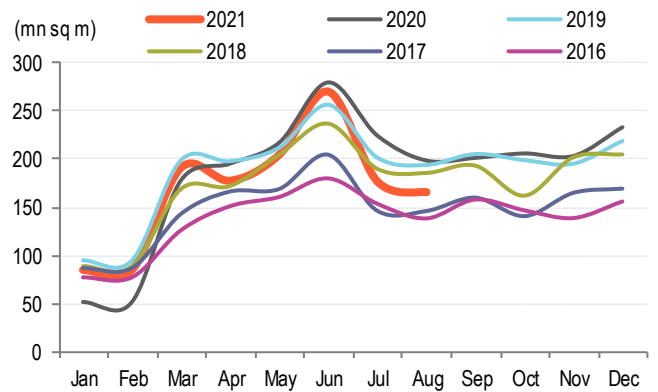
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 45 – Real estate floor space under construction



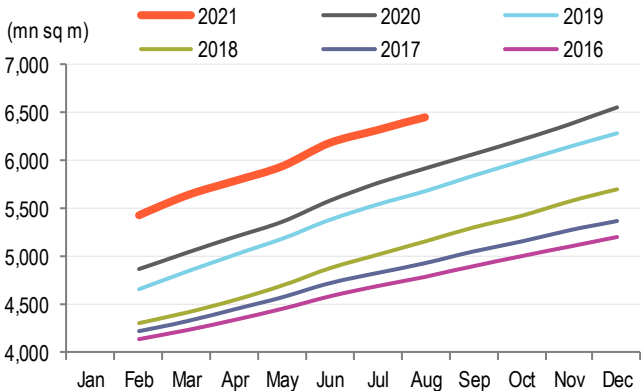
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 46 – Real estate floor space newly started



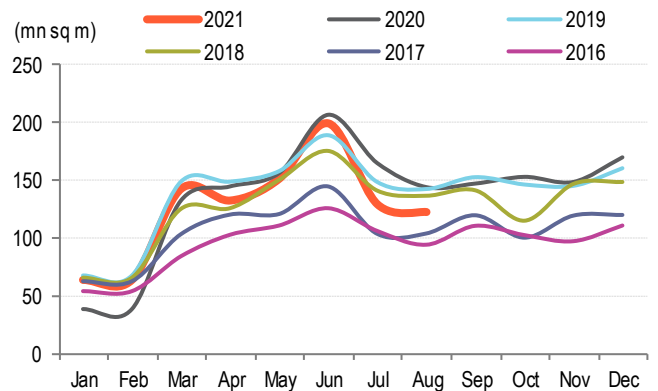
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 47 – Residential floor space under construction



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

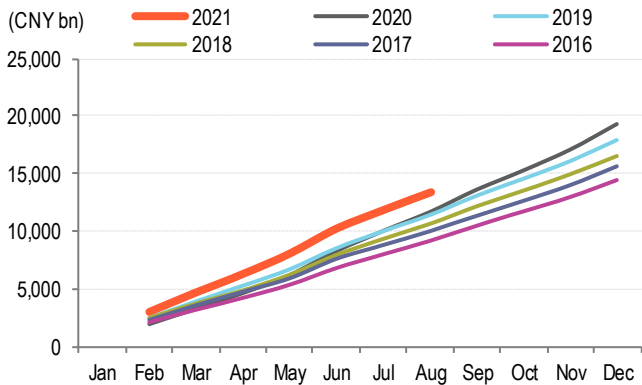
Fig 48 – Residential floor space newly started



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

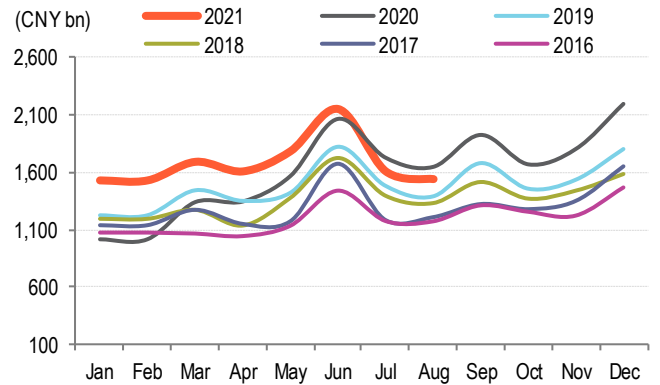
China property sector indicators

Fig 49 – Real estate – total funds cumulative



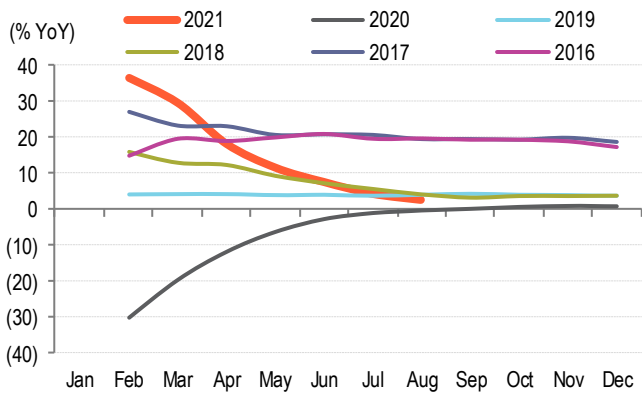
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 50 – Real estate – total funds monthly



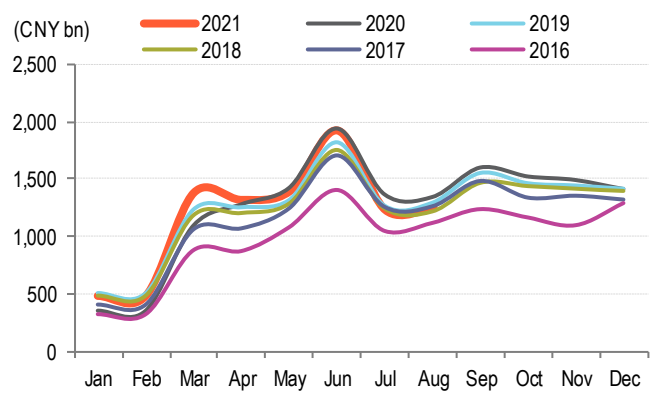
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 51 – Infrastructure FAI excluding electric power, heat power, gas and water, YTD growth



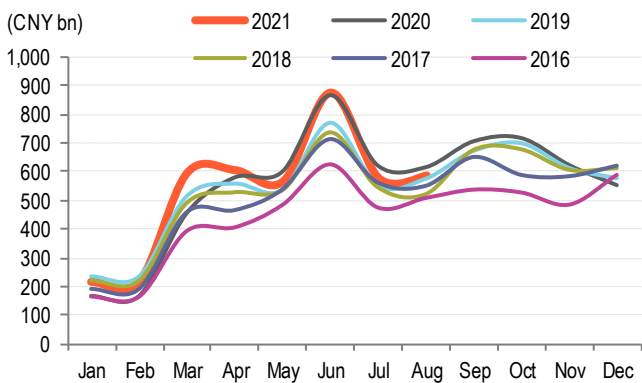
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 52 – Infrastructure FAI excluding electric power, heat power, gas and water



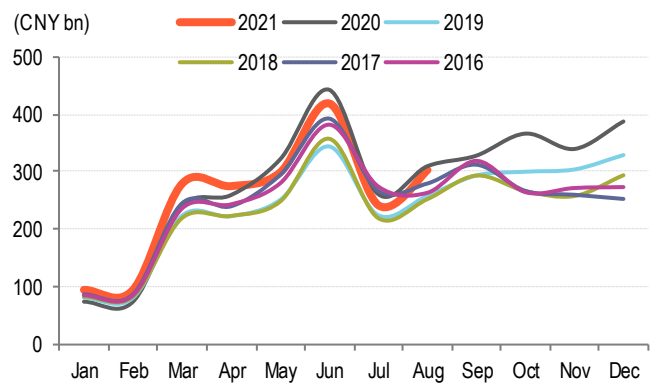
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 53 – Transport, Storage, Posts FAI



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

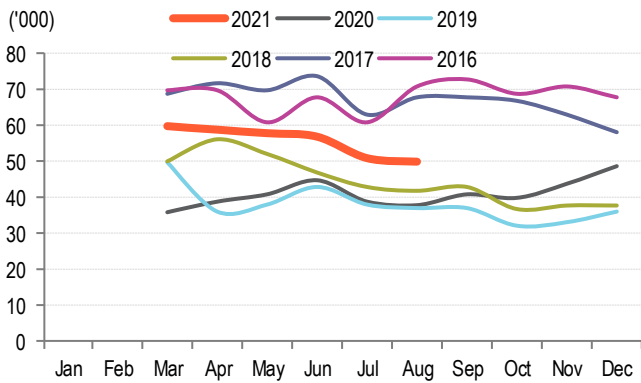
Fig 54 – Power, Gas and Water FAI



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

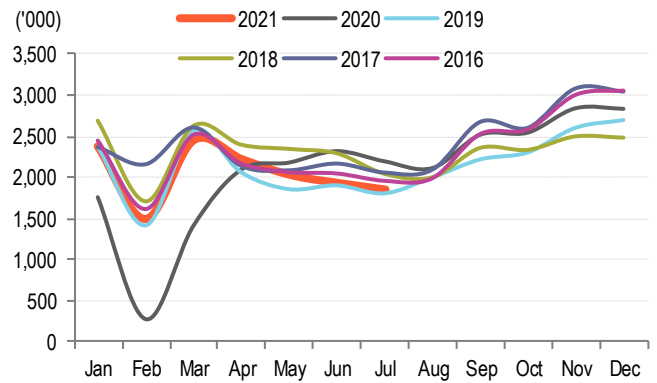
China downstream demand indicators

Fig 55 – Machinery: metal cutting machine production



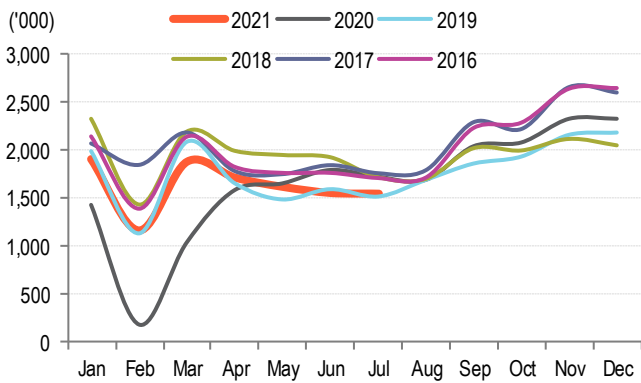
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 56 – Automobiles: vehicle production



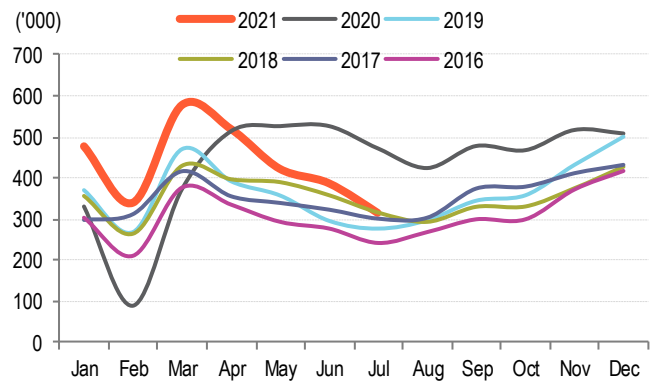
Source: Bloomberg, China Automotive Information Net, BOBCAPS Research

Fig 57 – Automobiles: Passenger vehicles production



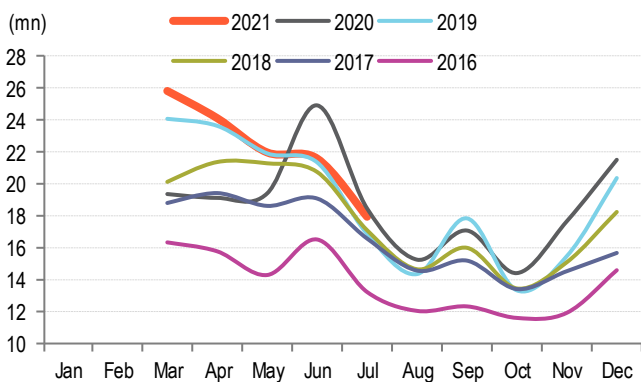
Source: Bloomberg, China Automotive Information Net, BOBCAPS Research

Fig 58 – Automobiles: Commercial vehicles production



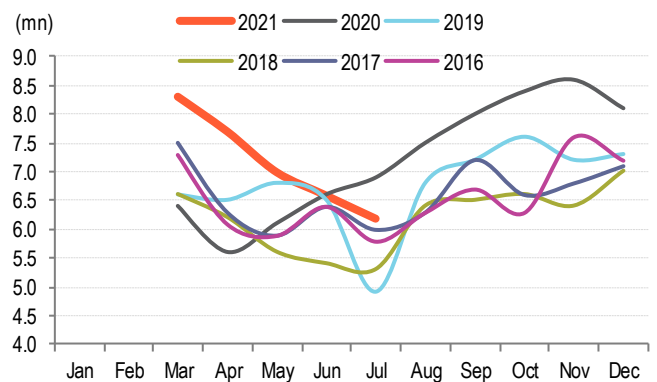
Source: Bloomberg, China Automotive Information Net, BOBCAPS Research

Fig 59 – Appliances: Air-conditioner production



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

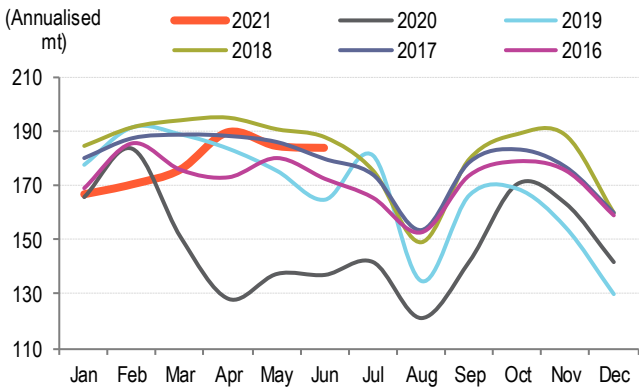
Fig 60 – Appliances: Washing machine production



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

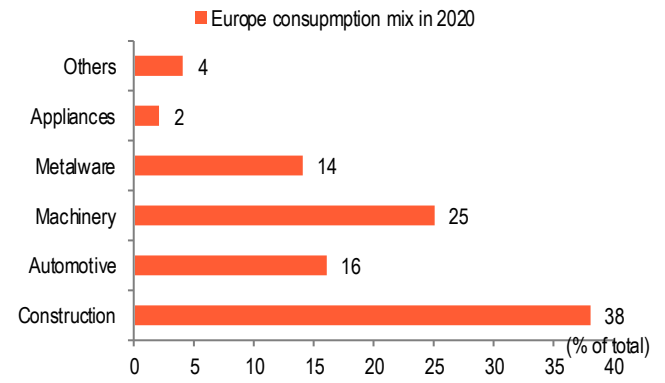
Europe: steel demand indicators

Fig 61 – Europe apparent demand



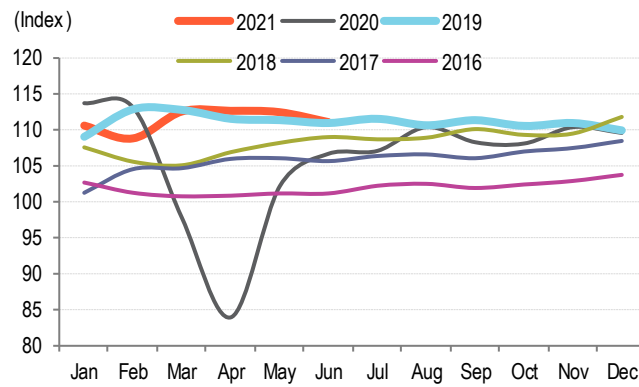
Source: Bloomberg, Eurofer, World Steel Association, BOBCAPS Research

Fig 62 – Europe demand break-up



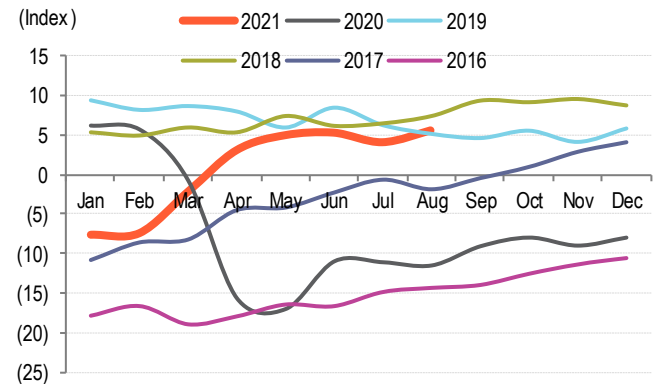
Source: Eurofer, BOBCAPS Research

Fig 63 – Europe construction index seasonally adjusted



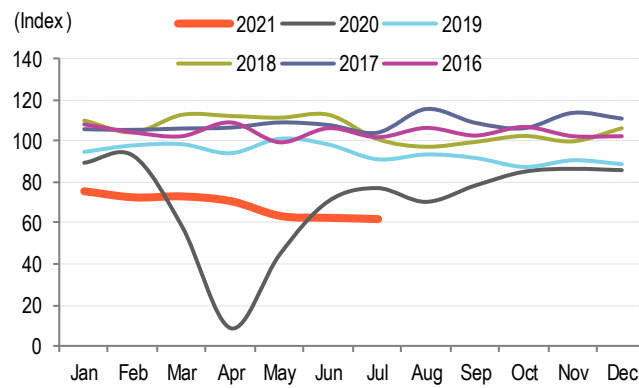
Source: Bloomberg, Eurostat, BOBCAPS Research ! SA – Seasonally adjusted

Fig 64 – Eurozone construction confidence indicator SA



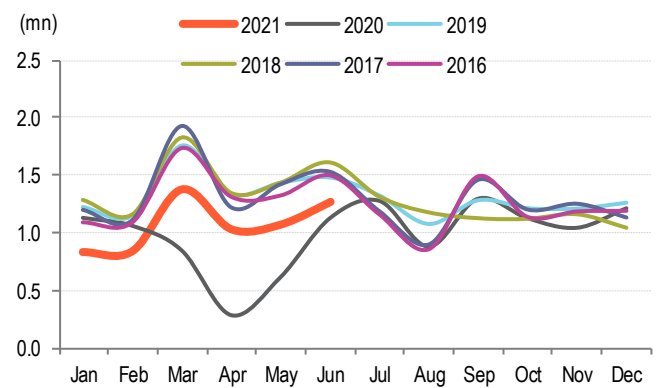
Source: Bloomberg, European Commission, BOBCAPS Research ! SA – Seasonally adjusted

Fig 65 – EU motor vehicle production index



Source: Bloomberg, Eurostat, BOBCAPS Research

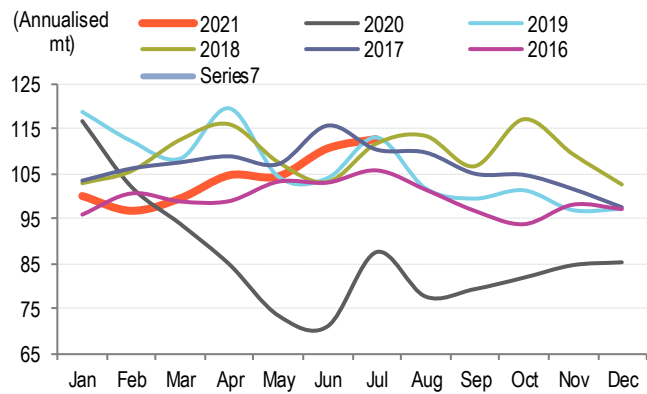
Fig 66 – Europe vehicles registration



Source: ACEA, Bloomberg, BOBCAPS Research

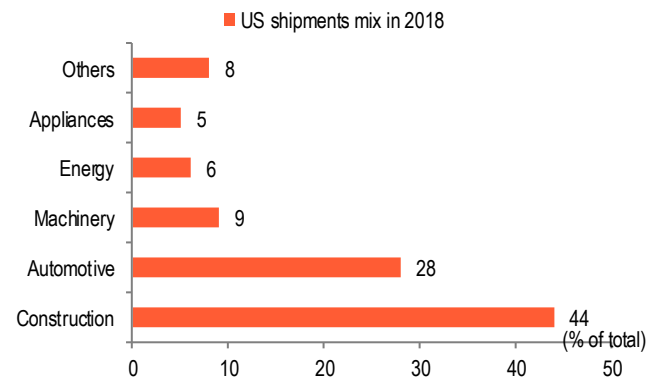
US steel demand indicators

Fig 67 – US apparent steel demand



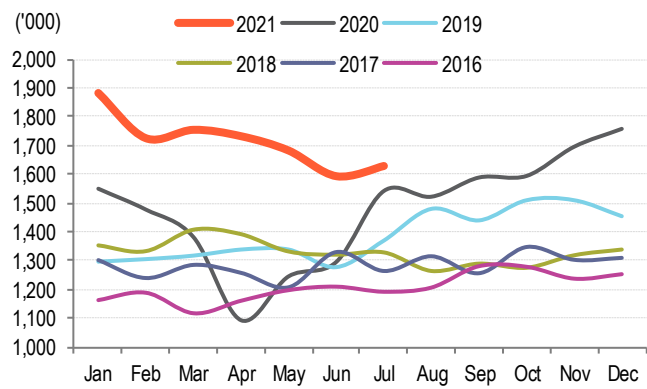
Source: Bloomberg, US Census Bureau, World Steel Association, BOBCAPS Research

Fig 68 – US steel shipments break-up (2018)



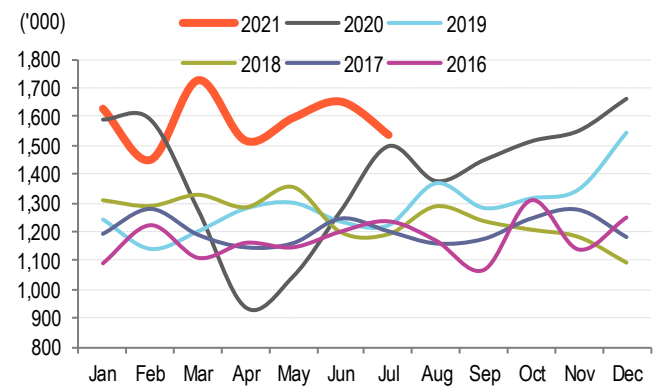
Source: AISI, BOBCAPS Research

Fig 69 – US housing permits



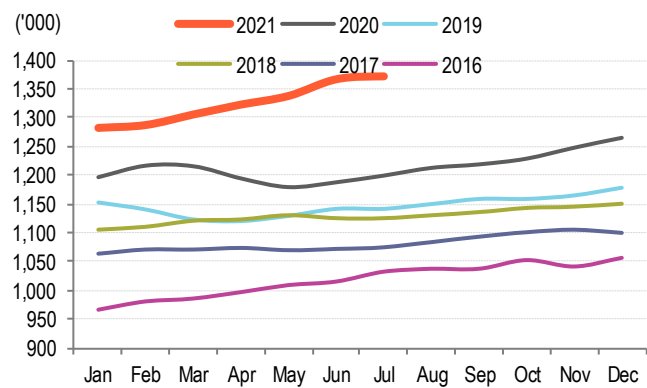
Source: Bloomberg, US Census Bureau, BOBCAPS Research

Fig 70 – US housing starts



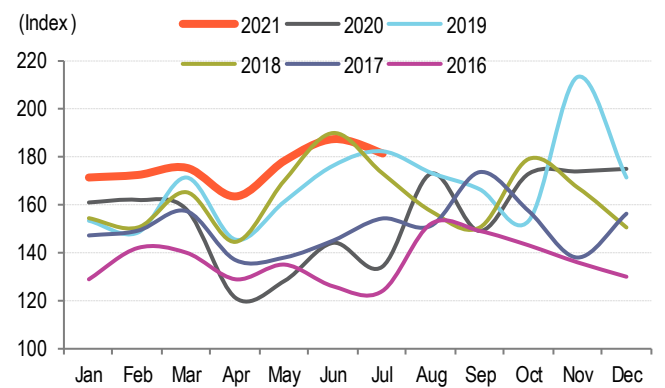
Source: Bloomberg, US Census Bureau, BOBCAPS Research

Fig 71 – US new homes under construction



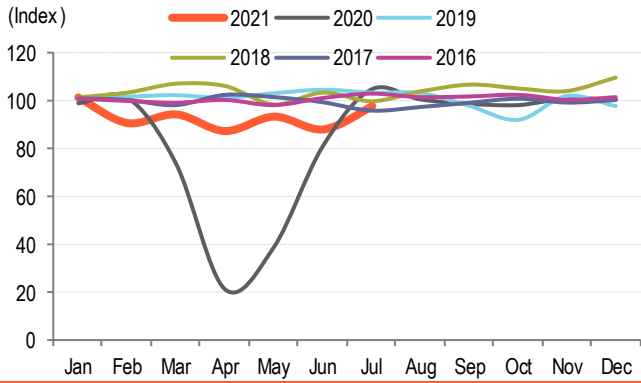
Source: Bloomberg, US Census Bureau, BOBCAPS Research

Fig 72 – US FW Dodge Construction Index



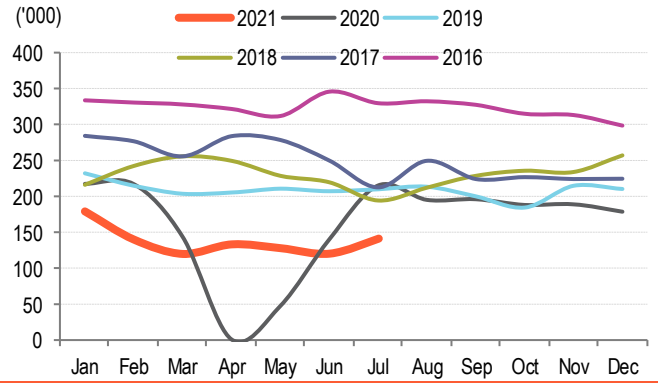
Source: Bloomberg, FW Dodge, BOBCAPS Research

Fig 73 – US motor vehicle and parts production manufacturing SA index



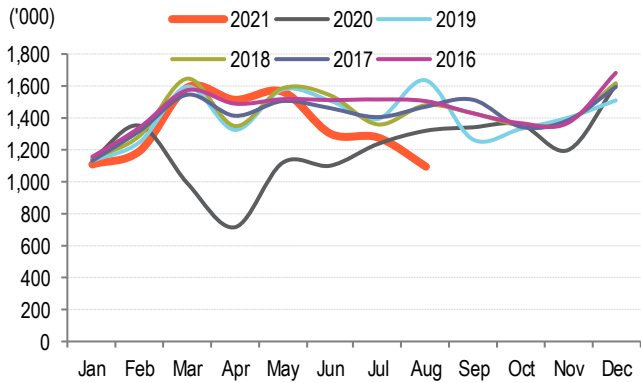
Source: Bloomberg, US Federal Reserve, BOBCAPS Research | SA – Seasonally adjusted

Fig 74 – US domestic auto production



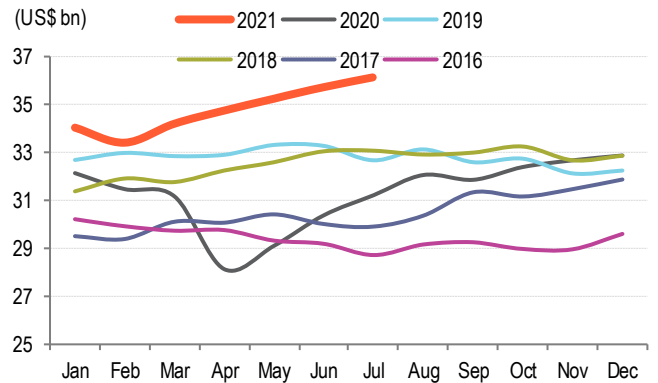
Source: Bloomberg, Bureau of Economics, BOBCAPS Research

Fig 75 – US truck and car vehicle sales



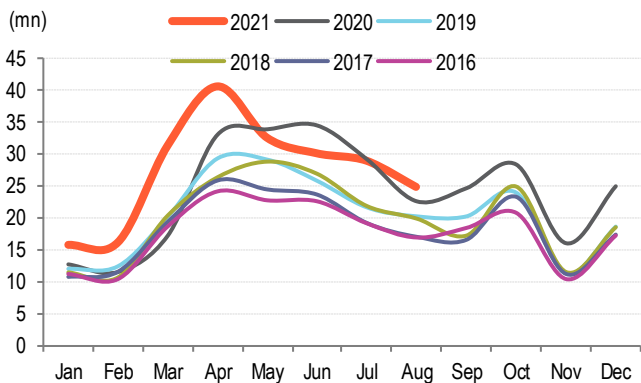
Source: Bloomberg, Bureau of Economics, BOBCAPS Research

Fig 76 – US machinery shipments



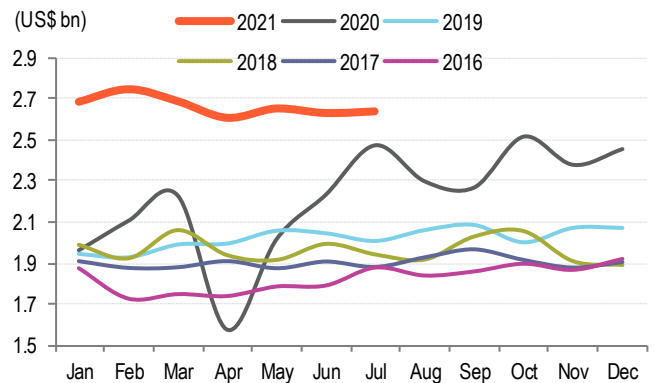
Source: Bloomberg, US Census Bureau, BOBCAPS Research

Fig 77 – US farm wheel tractor retail sales



Source: Association of Equipment Manufacturers, Bloomberg, BOBCAPS Research

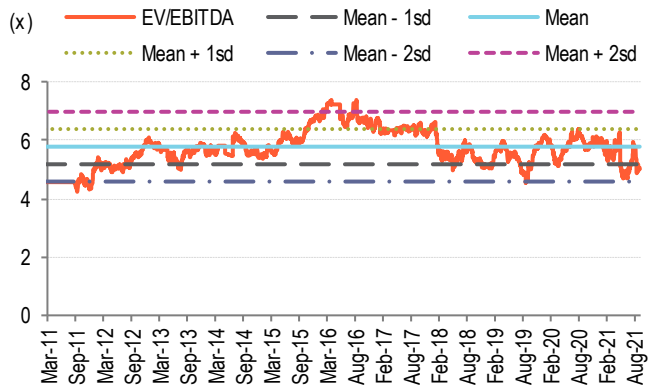
Fig 78 – US appliances new orders



Source: Bloomberg, US Census Bureau, BOBCAPS Research

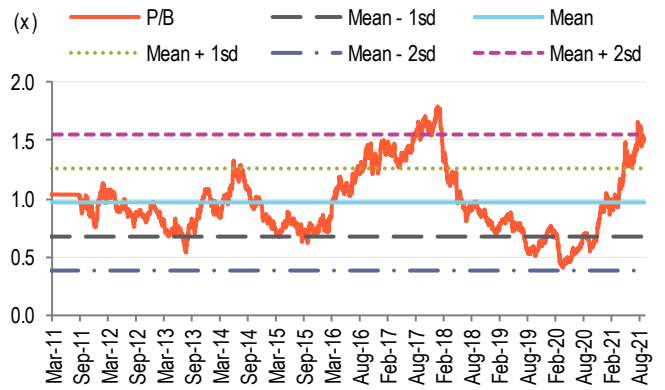
India steel sector valuation charts

Fig 79 – Tata Steel EV/EBITDA 2Y forward



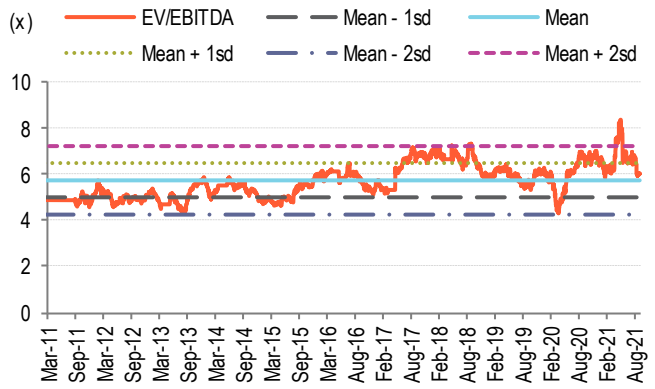
Source: Bloomberg, BOBCAPS Research

Fig 80 – Tata Steel P/B 1Y forward



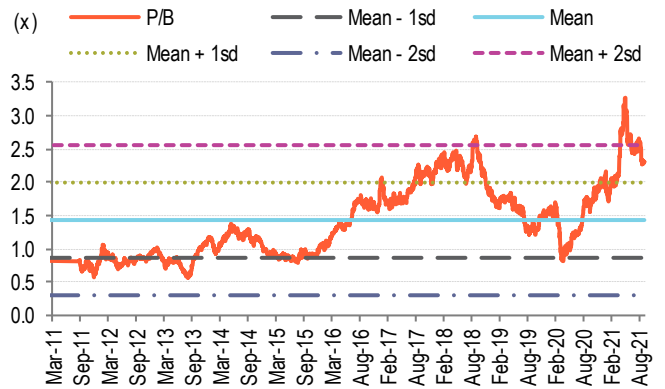
Source: Bloomberg, BOBCAPS Research

Fig 81 – JSW Steel EV/EBITDA 2Y forward



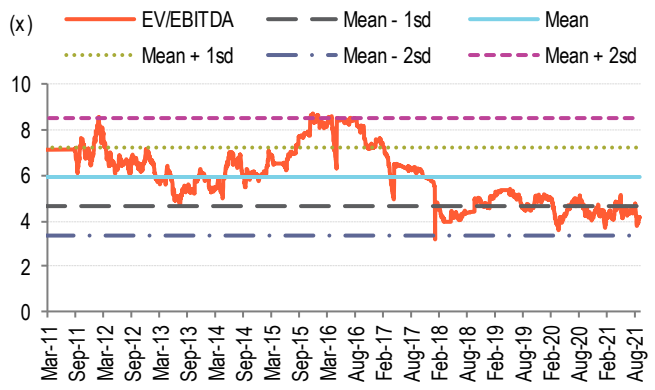
Source: Bloomberg, BOBCAPS Research

Fig 82 – JSW Steel P/B 1Y forward



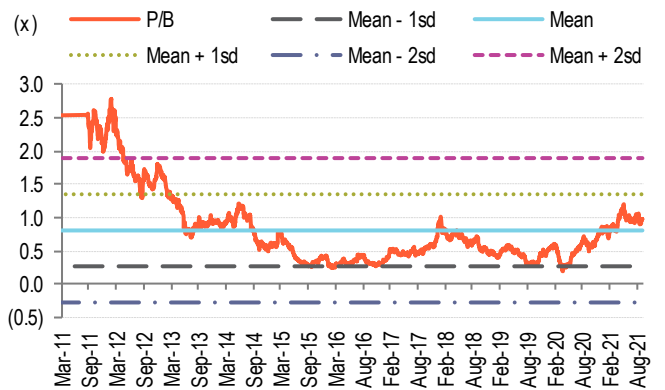
Source: Bloomberg, BOBCAPS Research

Fig 83 – JSPL EV/EBITDA 2Y forward



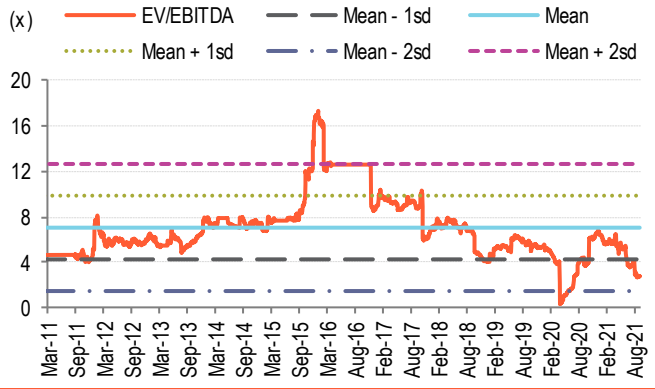
Source: Bloomberg, BOBCAPS Research

Fig 84 – JSPL P/B 1Y forward



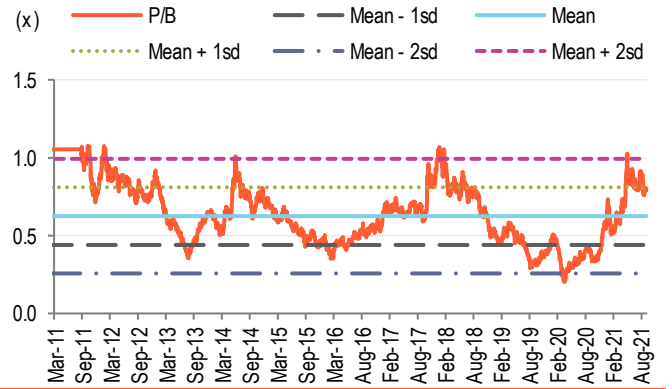
Source: Bloomberg, BOBCAPS Research

Fig 85 – SAIL EV/EBITDA 2Y forward



Source: Bloomberg, BOBCAPS Research

Fig 86 – SAIL P/B 1Y forward



Source: Bloomberg, BOBCAPS Research

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HOLD – Expected return from -6% to +15%

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Note: Recommendation structure changed with effect from 21 June 2021

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