

METALS & MINING

Ferrous Chartbook

21 October 2021

Supply cuts in China offsetting demand contraction

- Demand deceleration in China offset by sharp production cuts and their extension into Q1CY22
- Higher coking coal prices supporting steel prices but will impact nearterm margins of Indian players
- Indian steel margins will ease from the peak and gradually revert to mean in medium term; we prefer TATA and JSP

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China demand-supply balance supported by large production cuts: The World Steel Association (WSA) has slashed its steel demand forecast for China to -1%/0% (from 3%/1%) in its October assessment. However, production cuts have been even sharper and hence the market has remained in balance, as indicated by flat net exports and inventory trends. Further, winter restrictions extend curtailments into Q1CY22 with at least a 30% YoY cut for ~40% of production in China over 1 January to 15 March 2022.

Ex-China, market tightness to ease gradually: WSA has increased its ex-China demand growth forecast for CY21 to 11.5% (9.3%), raising projections for developed markets. The increased energy prices could pose a risk to some European EAF producers which account for ~40% of the region's production.

Coking coal supply crunch to sustain through early next year: Production disruptions in China, Inner Mongolia, and Australia have escalated tightness in met coal markets. While Australian supply has recovered from maintenance shutdowns, it typically slows during the wet season from November. Increased production in China and restoration of Inner Mongolia exports are key to easing the supply crunch.

Iron ore supply underperforming but demand pullback sharper: According to Rio Tinto, global iron ore majors are on track to deliver only flat supply growth in CY21. Looking into CY22, structural issues persist. While Vale needs to deliver on milestones to ramp up production, Australian suppliers are working through the replacement of legacy volumes.

Steel margins to normalise in medium term: We believe steel margins will soften over the next 6-12 months as steel prices ease to an estimated 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	441	555	BUY
JSTL IN	685	795	HOLD
SAIL IN	119	150	HOLD
TATA IN	1,343	1,755	BUY

Price & Target in Rupees | Price as of 20 Oct 2021





Regional benchmark steel prices holding up

China's HRC export price (regional benchmark) has sustained at ~US\$ 930/t even after a steep correction in iron ore prices. Rebar prices have in fact gained ~10% over August/September and are at US\$ 890/t levels. China's domestic prices have also been exhibiting similar trends. Its spot gross margin indicator has narrowed a bit as the upswing in met coal prices has offset the reduction in iron ore prices.

We expect steel prices to revert to mean gradually over the next 6-12 months. The pace of normalisation will depend on (a) the pace of mean reversal for coking coal, (b) evolving demand-supply balance in China led by deeper production cuts, and (c) speed of pent-up demand normalisation outside China.

India discount to benchmark price narrowing

Within India, domestic steel prices have risen alongside initial signs of demand revival. While HRC prices are up 8%, rebar prices have risen 12.5% from August. Discounts to the landed China export price have narrowed to 14% for HRC and 24% for rebar, but are still much higher than historical levels. We expect discounts to narrow as demand revives.

As global steel prices revert to mean, we expect India prices to also ease gradually to US\$ 750/t for FY22 and US\$ 650/t for FY23. In the near term, the significant rise in met coal prices in September will and could result in a softening of margins in Q3FY22 from the high levels seen in Q4FY21 and Q1FY22.

Demand-supply balance remains tight

In China, deceleration in steel demand has been followed by aggressive production cuts, keeping the demand-supply balance in check. This is visible in flat MoM net exports in September and the inventory indicator for the marketplace and traders also remaining flat.

Outside China, production has surpassed previous monthly levels and demand is holding up on the back of strength in the developed world (US/Europe). Easing of tightness will depend of the gradual waning of pent-up demand and extent of net exports out of China.

Sharp production cuts in China

China's steel production cuts have continued in September with output easing to 73.75mt, below annualised levels of 900mt and down 25% from the peak in April. This has curtailed crude steel output YTD (to September) to only 2.4% above last year's level. Apart from government intervention to limit production at CY20 levels, energy shortages have reduced EAF utilisation to ~60% in September (compared to 80% a year ago) and further below 50% by mid-October (Mysteel).

With winter production cuts finalised by China, lower output levels will continue through mid-Mar'22. Steel mills in areas around Beijing, Tianjin and Hebei province are required to cut output during the upcoming heating season from mid-November to mid-March to reduce emissions. This region accounts for ~40% of China's steel production. Mills in this region need to ensure that they do not exceed CY20 production levels in CY21 and must cut their output by at least 30% YoY during 1 January to 15 March 2022.



Ex-China production exposed to risk of high energy prices

Production outside China has ramped up to a five-year high after seasonal adjustments. While Europe and the US were close to their five-year peaks in August, Asia ex-China was operating above the previous high.

Looking forward, steelmakers, particularly EAF-based producers around Europe who account for ~40% of European production, are exposed to the risk of prevailing high electricity prices. EAF production challenges are likely to have a greater impact on long-product makers rather than sheet producers.

WSA cuts global demand growth

In its Oct'21 assessment, WSA lowered its forecast for global steel demand growth to 4.5% for CY21 (from 5.8% in its Apr'21 assessment) and to 2.2% for CY22 (from 2.7%) primarily due to the slowdown observed in China. However, WSA now expects world demand ex-China to return to pre-pandemic levels earlier than previously forecast.

Fig 1 - Global steel demand forecasts

Region _	Steel demand forecasts (Oct'21 assessment)			Demand growth forecast (Oct'21 assessment)			Steel demand forecasts (Apr'21 assessment)	
	2020A	2021E	2022E	2020A	2021E	2022E	2021E	2022E
Europe	177	201	212	(7.7)	13.5	5.8	11.7	5.0
USMCA	114	130	137	(15.8)	13.7	5.3	7.5	4.6
Asia ex-China	310	345	360	(10.5)	11.3	4.3	10.2	5.1
Others	180	195	203	(4.9)	8.6	3.8	6.5	4.0
World ex-China	780	870	911	(9.5)	11.5	4.7	9.3	4.8
China	995	985	985	9.1	(1.0)	0.0	3.0	1.0
World	1,775	1,855	1,896	0.1	4.5	2.2	5.8	2.7

Source: World Steel Association, BOBCAPS Research

China demand slowing but won't collapse

For China, WSA has cut demand growth expectations to -1% (from 3%) for CY21 and to 0% (from 1%) for CY22, noting signs of marked deceleration since June. Steel demand has contracted by 13.3% YoY in July and 18.3% YoY in August as per WSA estimates.

The steel body expects demand growth to drop from 2.7% YTD (to August) to -1% for CY21. It attributes the weakness to slowing momentum in the real estate sector, no material pickup in infrastructure investment due to limited local government financing ability and reduced exports as manufacturing recovers outside China. For CY22, WSA expects demand to stabilise and remain flat YoY. It does not expect any sharp recovery in the real estate sector through CY22.

While new project initiation has already begun slowing, the real estate projects initiated over the past one year are likely to be completed to avoid any contagion risk to the sector. China's central bank has finally said that the risks arising from the debt crisis at Evergrande Group are "controllable" and the system has lenders to ensure "stable and orderly" credit to the real estate sector.



ROW demand running stronger

WSA's reduced China forecast is partly set off by an increase in its ROW (world ex-China) demand growth estimate to 11.5% from 9.3% for CY21. The increase is mainly driven by expectations of higher offtake in developed markets including the US and Europe.

- WSA expects the US economy to return close to pre-pandemic levels in CY22 with robust recovery and a vigorous policy response. While an infrastructure stimulus programme could provide additional support, benefits may not flow through until late CY22.
- In the EU, the steel recovery is gathering pace despite continuing waves of the pandemic. In its latest October assessment, Eurofer forecasts that total output across construction, mechanical engineering, automotive and domestic appliances will recover by 9.3% in CY21 (from -10.5% in CY20). Eurofer further expects the construction sector (35% of steel demand) to support demand in CY22.

While steel demand has continued to revive in the developing world, high Covid-19 infection rates, low vaccination levels and a sluggish recovery in international tourism continue to weigh on these economies. WSA is seeing slower improvement in demand in the developing world than the developed world.

Iron ore market balance eases with lower China production

With production cuts in China, the demand-supply balance in the iron ore seaborne market has significantly eased. While iron ore supply was falling short of expectations at the start of the year, this is now more than balanced by a sharp reduction in demand from China – reflected in a sharp pullback in iron ore price to a low of ~US\$ 100/t followed by a modest recovery to US\$ 120/t currently.

According to Rio Tinto, global majors are on track only for flat shipments YoY. As per Q3CY21 production reports, Rio Tinto has cut its Australian shipment guidance to 320-325mt from 325-340mt for CY21 and Vale is looking to deliver levels closer to the lower end of its previously guided range of 315-335mt as it scales back some of its low-margin high-silica iron ore production.

The Q3 production reports point to sustained structural supply tightness in the iron ore market. Vale still needs to deliver on milestones to ramp up production through CY22. Recently in September, the company lowered its target to 370mt (from 400mt) of capacity by the end of CY22. Australian players are working through replacing legacy volumes to the tune of 20-25% of their capacity. They have been highlighting constraints in project execution arising from heritage management and labour shortages. We have also started seeing evidence of a backdown of high-cost production with the pullback in iron ore prices.



Coking coal tightness could continue through early next year

Coking coal prices have jumped to US\$ 400/t outside China and close to US\$ 500/t in China. Despite the sharp cutback in crude steel production in China, the coking coal seaborne market remains tight.

Following the ban on Australian coal volumes, China has been able to secure only partial substitution of these volumes from North American suppliers (US and Canada). Further, China has been facing constraints in domestic coal production owing to a focus on safety and also receiving lower supply from Inner Mongolia post May'21 due to Covid-related disruptions. Supply tightness has escalated with Australian supplier BHP entering into maintenance for its met coal mines in Q3CY21. BHP's production was down 25% QoQ in Q3.

BHP has recently confirmed completion of maintenance at its Australian mines which should alleviate the shortages somewhat, but supply remains subject to the risk of wet weather starting from November. Recovery in Inner Mongolia supply and domestic production in China is essential to relieve the supply crunch.

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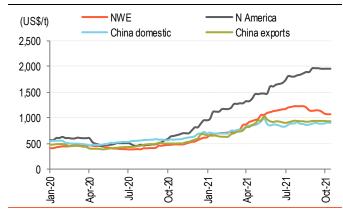
Prices

Fig 2 - HRC steel prices (China and India)



Source: Bloomberg, BOBCAPS Research

Fig 3 - Regional HRC steel prices



Source: Bloomberg, BOBCAPS Research

Fig 4 - Iron ore prices

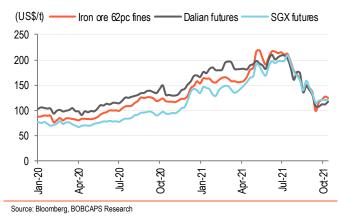
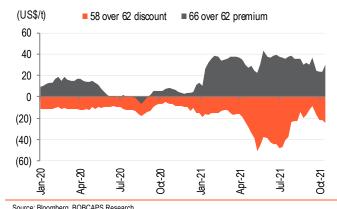
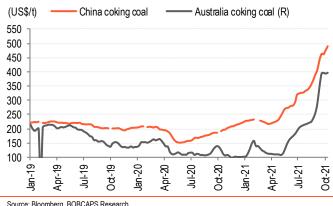


Fig 5 - Iron ore grade premia/ discount



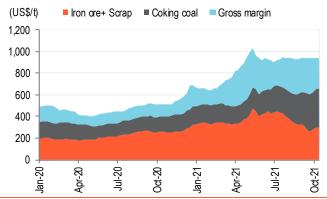
Source: Bloomberg, BOBCAPS Research

Fig 6 - Coking coal prices



Source: Bloomberg, BOBCAPS Research

Fig 7 – China HRC gross margin proxy (on export price)

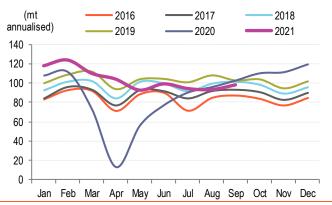


Source: Bloomberg, BOBCAPS Research



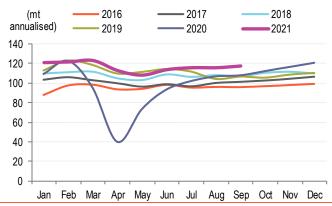
India steel demand, supply and prices

Fig 8 - India steel consumption



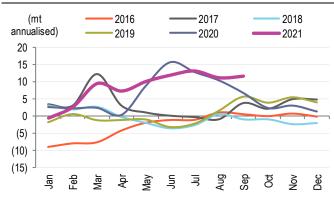
Source: CMIE, BOBCAPS Research

Fig 9 - India steel production



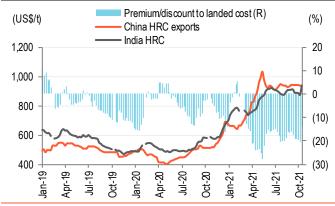
Source: CMIE, BOBCAPS Research

Fig 10 - India steel exports



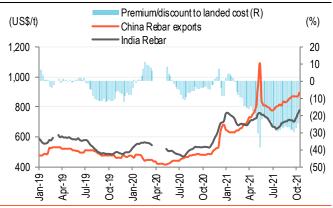
Source: CMIE, BOBCAPS Research

Fig 11 - India HRC premium/discount



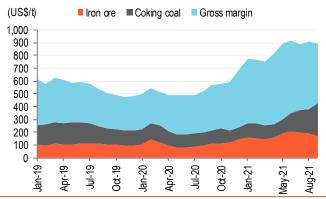
Source: Bloomberg, CMIE, BOBCAPS Research

Fig 12 - India rebar premium/discount



Source: : Bloomberg, Steelmint, BOBCAPS Research

Fig 13 – India HRC gross margin proxy

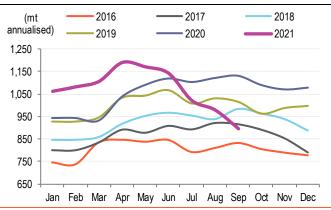


Source: Bloomberg, CMIE, Steelmint, BOBCAPS Research



China steel production and consumption

Fig 14 - China steel production



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

Fig 16 - China steel net exports

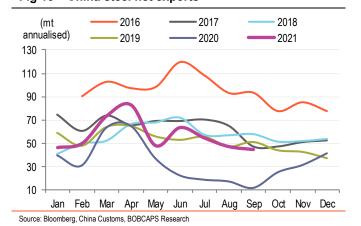


Fig 18 - China steel inventory of traders

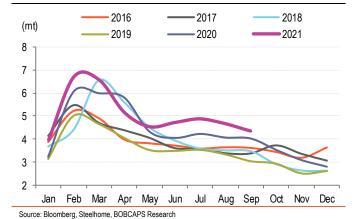
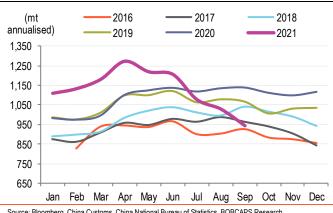
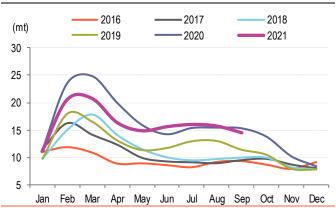


Fig 15 - China steel apparent consumption



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

Fig 17 - China steel inventory for marketplace

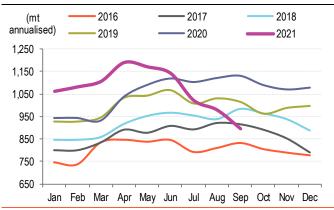


Source: Antaike, Bloomberg, BOBCAPS Research



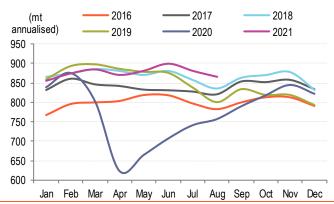
World steel production

Fig 19 - China production



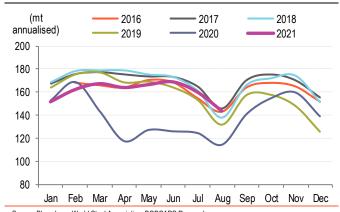
Source: Bloomberg, China National Bureau of Statistics, BOBCAPS Research

Fig 20 - Ex-China production



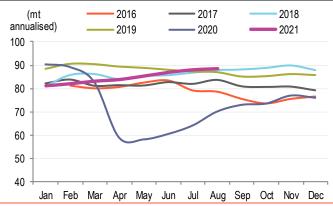
Source: Bloomberg, World Steel Association, BOBCAPS Research

Fig 21 - EU production



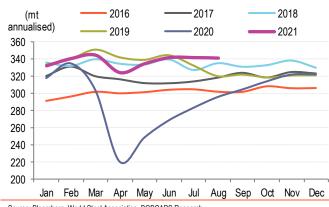
Source: Bloomberg, World Steel Association, BOBCAPS Research

Fig 22 - US production



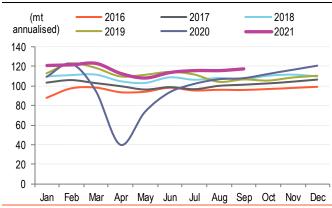
Source: Bloomberg, World Steel Association, BOBCAPS Research

Fig 23 - Asia ex-China production



Source: Bloomberg, World Steel Association, BOBCAPS Research

Fig 24 – India production

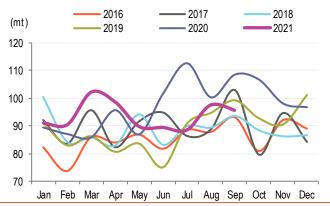


Source: CMIE, BOBCAPS Research



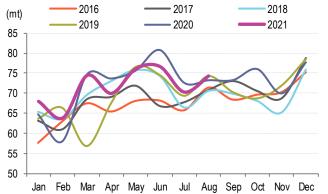
Iron ore imports/exports

Fig 25 - China iron ore imports



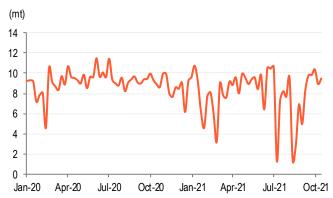
Source: Bloomberg, China Customs, BOBCAPS Research

Fig 27 - Australia iron ore exports (monthly)



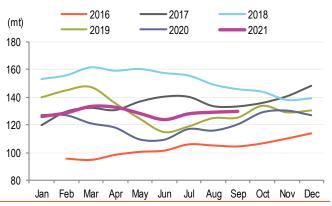
Source: Bloomberg, Australian Bureau of Statistics, BOBCAPS Research

Fig 29 – Australia Port Headland iron ore exports (weekly)



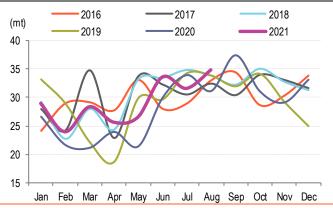
Source: Bloomberg, Global Ports, BOBCAPS Research

Fig 26 - China iron ore port inventory



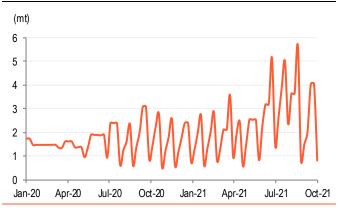
Source: Bloomberg, Steelhome, BOBCAPS Research

Fig 28 - Brazil iron ore exports (monthly)



Source: Bloomberg, Brazil Ministry of Commerce, BOBCAPS Research

Fig 30 – Brazil iron ore exports (weekly)

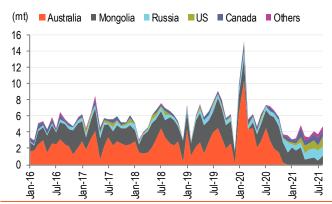


Source: Bloomberg, Brazil Ministry of Commerce, BOBCAPS Research



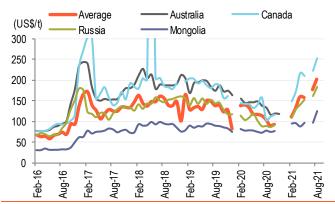
Coking coal

Fig 31 - China coking coal imports



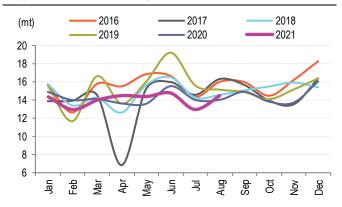
Source: Bloomberg, China Customs, BOBCAPS Research

Fig 32 – China coking coal import price



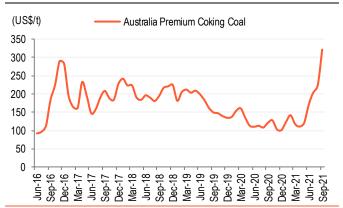
Source: Bloomberg, China Customs, BOBCAPS Research

Fig 33 - Australia coking coal exports



Source: Australian Bureau of Statistics, Bloomberg, BOBCAPS Research

Fig 34 - Australia coking coal FOB price

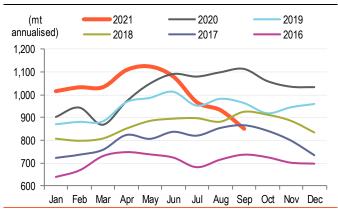


Source: SteelMint, BOBCAPS Research



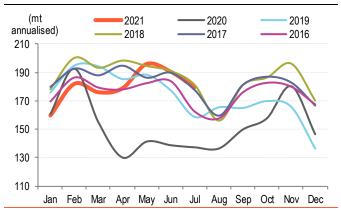
Apparent steel demand

Fig 35 - China



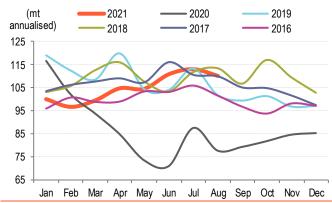
Source: Bloomberg, China Customs, National Bureau of Statistics, BOBCAPS Research

Fig 36 - Europe



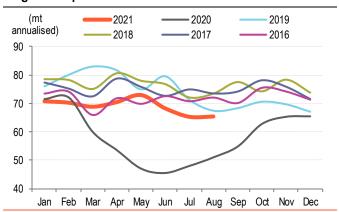
Source: Bloomberg, Eurofer, World Steel Association, BOBCAPS Research

Fig 37 - US



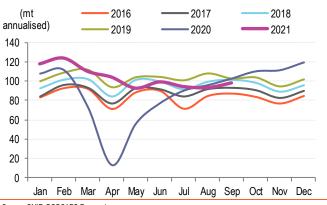
Source: Bloomberg, US Census Bureau, World Steel Association, BOBCAPS Research

Fig 38 - Japan



Source: Bloomberg, Ministry of Finance Japan, World Steel Association, BOBCAPS Research

Fig 39 - India

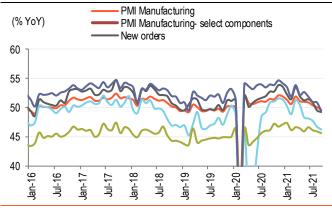


Source: CMIE, BOBCAPS Research



China demand indicators

Fig 40 - China manufacturing PMI



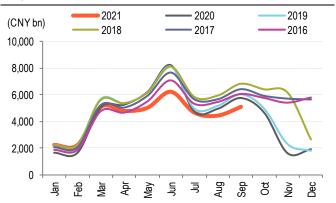
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 41 - China industrial production, YTD growth



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 42 - China FAI ex-rural households



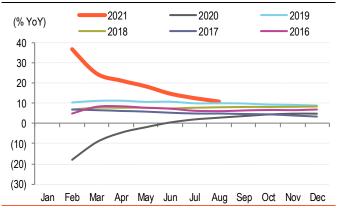
 $Source: Bloomberg, National \ Bureau \ of \ Statistics, BOBCAPS \ Research \ | \ FAI-Fixed \ Asset \ Investment$

Fig 43 - China steel PMI



Source: Bloomberg, Steelhome, BOBCAPS Research

Fig 44 - China FAI real estate FAI, YTD growth



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 45 - China real estate FAI

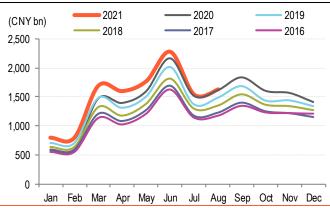
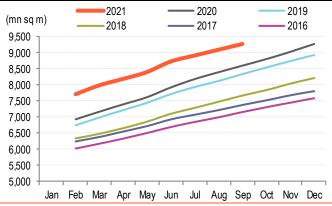


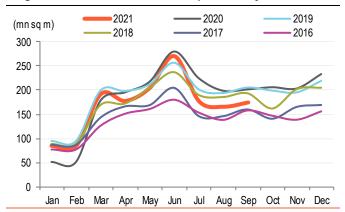


Fig 46 - China real estate floor space under construction



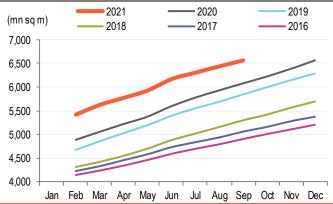
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 47 - China real estate floor space newly started



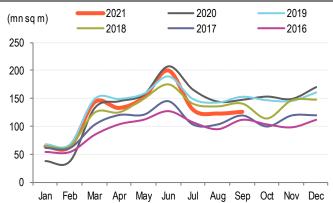
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 48 - China residential floor space under construction



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

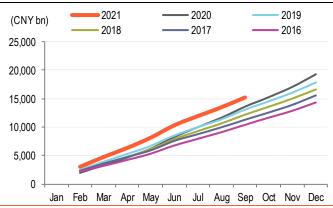
Fig 49 - China residential floor space newly started





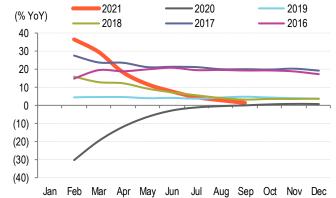
China property sector indicators

Fig 50 - China real estate - total funds cumulative



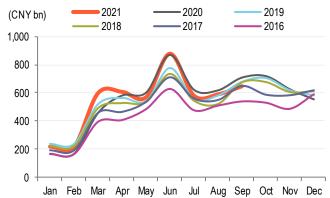
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 52 – China infrastructure FAI excluding electric power, heat power, gas and water, YTD growth



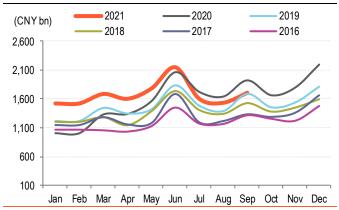
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 54 - China Transport, Storage, Posts FAI



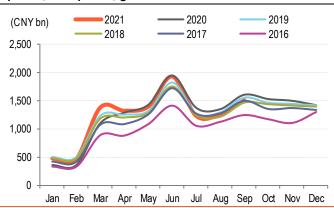
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 51 - China real estate - total funds monthly



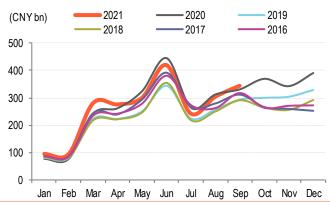
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 53 – China infrastructure FAI excluding electric power, heat power, gas and water



Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

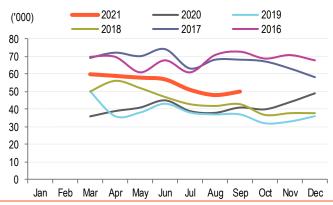
Fig 55 - China Power, Gas and Water FAI





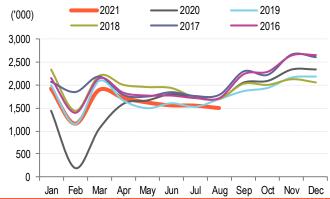
China downstream demand indicators

Fig 56 – China machinery: Metal cutting machine production



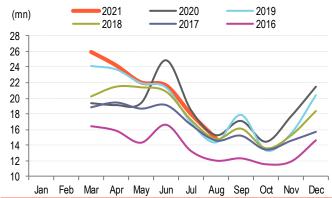
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 58 – China automobiles: Passenger vehicle production



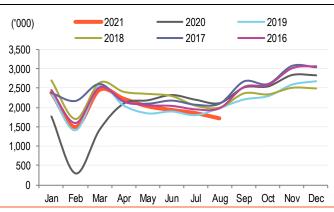
Source: Bloomberg, China Automotive Information Net, BOBCAPS Research

Fig 60 - China appliances: Air conditioner production



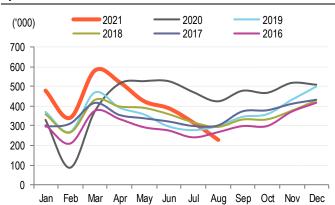
Source: Bloomberg, National Bureau of Statistics, BOBCAPS Research

Fig 57 - China automobiles: Vehicle production



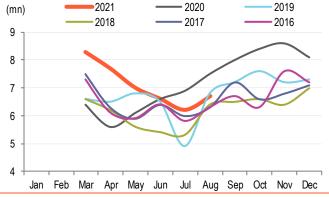
Source: Bloomberg, China Automotive Information Net, BOBCAPS Research

Fig 59 – China automobiles: Commercial vehicle production



Source: Bloomberg, China Automotive Information Net, BOBCAPS Research

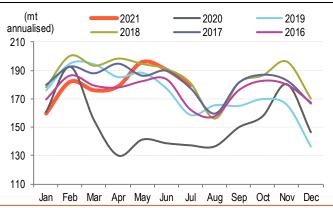
Fig 61 – China appliances: Washing machine production





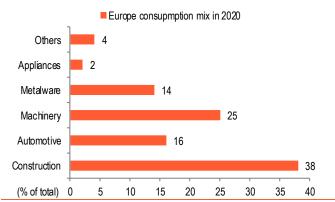
Europe steel demand indicators

Fig 62 - Europe apparent demand



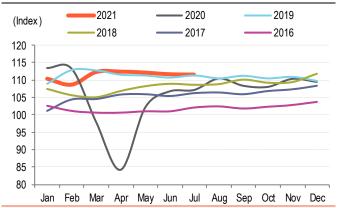
Source: Bloomberg, Eurofer, World Steel Association, BOBCAPS Research

Fig 63 - Europe demand breakup



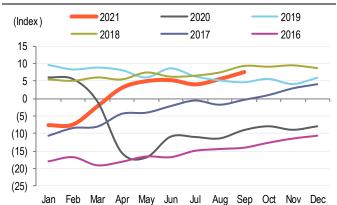
Source: Eurofer, BOBCAPS Research

Fig 64 - Europe construction index seasonally adjusted



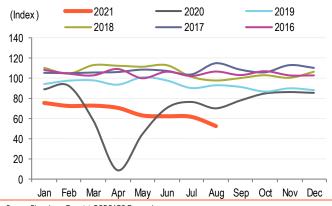
Source: Bloomberg, Eurostat, BOBCAPS Research | SA – Seasonally adjusted

Fig 65 - Eurozone construction confidence indicator SA



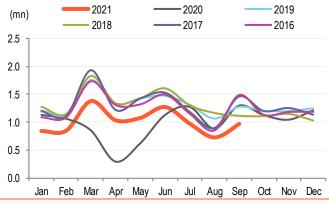
Source: Bloomberg, European Commission, BOBCAPS Research | SA – Seasonally adjusted

Fig 66 - EU motor vehicle production index



Source: Bloomberg, Eurostat, BOBCAPS Research

Fig 67 – Europe vehicle registration

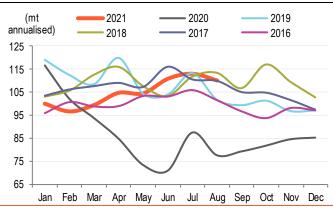


Source: ACEA, Bloomberg, BOBCAPS Research



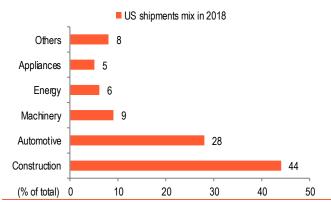
US steel demand indicators

Fig 68 - US apparent steel demand



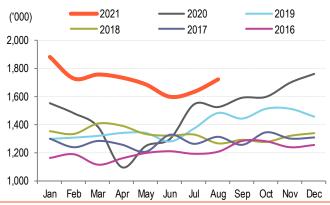
Source: Bloomberg, US Census Bureau, World Steel Association, BOBCAPS Research

Fig 69 - US steel shipments breakup



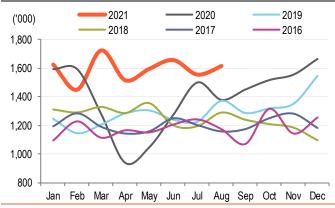
Source: AISI, BOBCAPS Research

Fig 70 - US housing permits



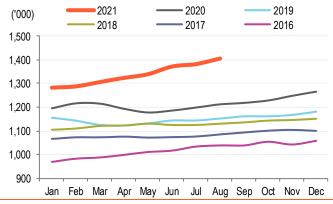
Source: Bloomberg, US Census Bureau, BOBCAPS Research

Fig 71 – US housing starts



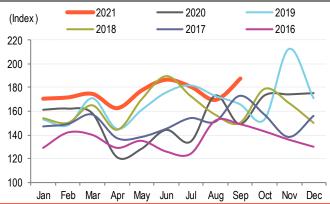
Source: Bloomberg, US Census Bureau, BOBCAPS Research

Fig 72 - US new homes under construction



Source: Bloomberg, US Census Bureau, BOBCAPS Research

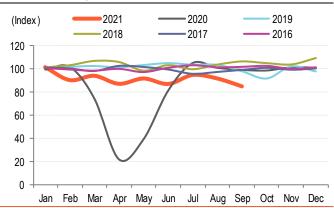
Fig 73 – US FW Dodge Construction Index



Source: Bloomberg, FW Dodge, BOBCAPS Research

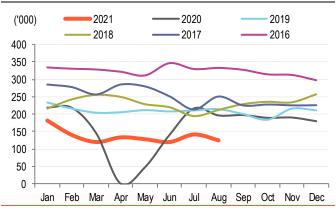


Fig 74 – US motor vehicle and parts production manufacturing SA index



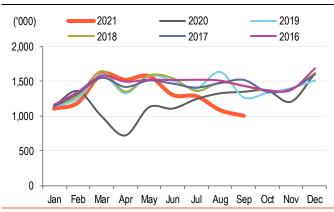
Source: Bloomberg, US Federal Reserve, BOBCAPS Research | SA – Seasonally adjusted

Fig 75 - US domestic auto production



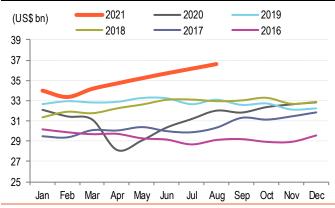
Source: Bloomberg, Bureau of Economics, BOBCAPS Research

Fig 76 - US truck and car vehicle sales



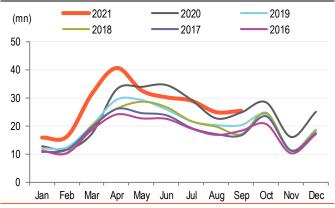
Source: Bloomberg, Bureau of Economics, BOBCAPS Research

Fig 77 - US machinery shipments



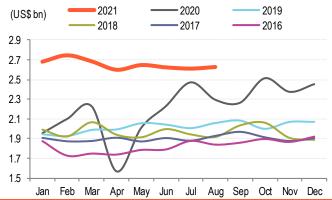
Source: Bloomberg, US Census Bureau, BOBCAPS Research

Fig 78 - US farm wheel tractor retail sales



Source: Association of Equipment Manufacturers, Bloomberg, BOBCAPS Research

Fig 79 - US appliances new orders

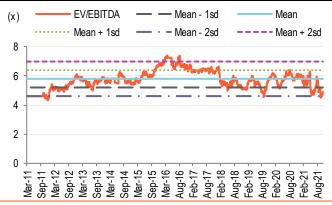


Source: Bloomberg, US Census Bureau, BOBCAPS Research



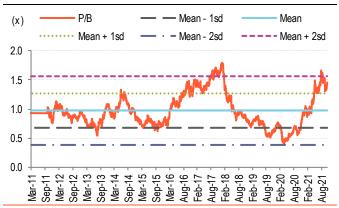
India steel sector valuation charts

Fig 80 - Tata Steel EV/EBITDA 2Y forward



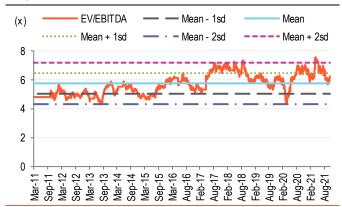
Source: Bloomberg, BOBCAPS Research

Fig 81 - Tata Steel P/B 1Y forward



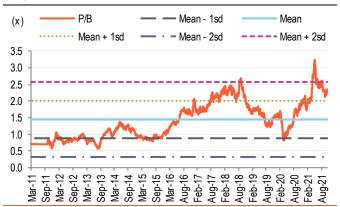
Source: Bloomberg, BOBCAPS Research

Fig 82 - JSW Steel EV/EBITDA 2Y forward



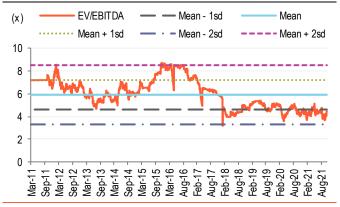
Source: Bloomberg, BOBCAPS Research

Fig 83 - JSW Steel P/B 1Y forward



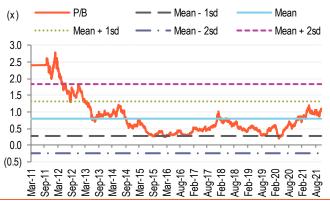
Source: Bloomberg, BOBCAPS Research

Fig 84 - JSP EV/EBITDA 2Y forward



Source: Bloomberg, BOBCAPS Research

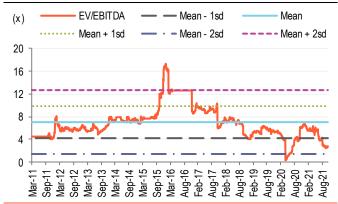
Fig 85 – JSP P/B 1Y forward



Source: Bloomberg, BOBCAPS Research

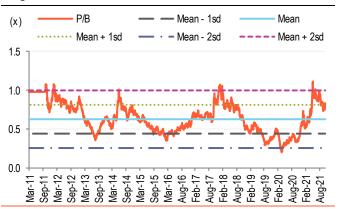


Fig 86 - SAIL EV/EBITDA 2Y forward



Source: Bloomberg, BOBCAPS Research

Fig 87 - SAIL P/B 1Y forward



Source: Bloomberg, BOBCAPS Research



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

SELL - Expected return <-6%

Note: Recommendation structure changed with effect from 21 June 2021

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