SAMPLE

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CHINA STEEL INTELLIGENCE REPORT

Turmoil and uncertainty

IN THIS MONTH'S ISSUE

Are markets too confident?

TURMOIL AND UNCERTAINTY

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In a change to the scheduled programme, this issue we will be looking at the early impacts, and some of the potential opportunities, for China's steel industry resulting from the Russian invasion of Ukraine. Our review of changing environmental policies will wait until a wider policy review following the conclusion of the 'Two Sessions' meetings in our next issue.

The key geopolitical moment in Russia's invasion of Ukraine has knock-on implications across industries and geographies. Many of these impacts will be playing out in the weeks, months and years to come. But as a first step, we will look at China's direct exposure to the conflict in terms of trade.

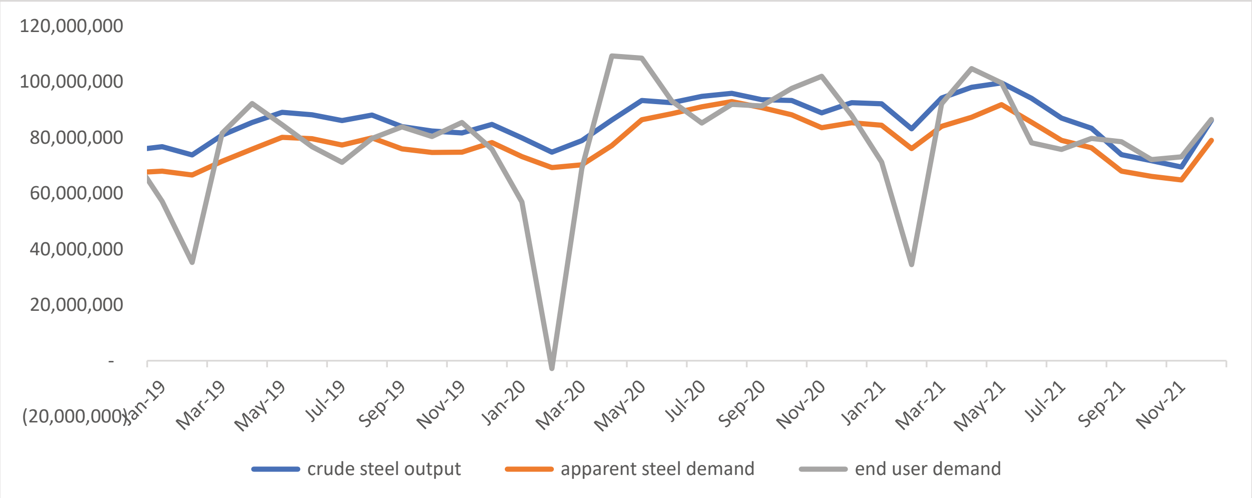
China does not like to release data for January due to the New Year holiday, and so this issue of CSI, as every year, will look a little different. But even without official new trade industry or downstream data, there is plenty to look at, including a first look at targets set in the latest Government Work Report.

TABLE 1. SUPPLY AND DEMAND

	2020	Jan-Dec 2021	Y-o-y	2022 Outlook	Y-o-y
Official Crude Steel Output	1,115	1,033	-3.00%	1,016	-1.60%
Apparent consumption	1,035	943	-5.43%	913	-3.10%
End user demand	1,031	946	-4.47%	913	-3.50%

Source: Kallanish. Million Tonnes

FIGURE 1. STEEL PRODUCTION AND DEMAND 2016-2021



Source: Kallanish. Million Tonnes

Questions about China and its position on the Russian invasion of Ukraine remain numerous, but what are the direct implications for the Chinese steel sector? Irrespective of geopolitical questions, there will inevitably be an impact on trade between the two countries, as well as knock-on effects from roiled global commodity markets.

The first thing to look at is direct trade. Of the two impacts, the most complete will be the simple impact of the war itself. Ukraine is not able to export by sea. If it reroutes exports by land, China is unlikely to be the obvious buyer due to freight costs. The second impact is from sanctions on Russia. Although China has said that it will not take part in economic sanctions, the closure of international payment and exchange systems to Russia will have an impact on China's ability to buy Russia materials. Even Chinese banks may shy away from conduct trade in USD as they will want to avoid any repercussions in other markets. Direct CNY-ruble trade may partially compensate for this, but allocations will likely be saved primarily for energy products. That means shipments from both countries are likely to be affected.

Iron ore

China's imports of iron ore are dominated by Australia and Brazil, but Russia and Ukraine do feature as minor suppliers. More than 1.5% of China's total iron ore imports in 2021 were from Ukraine, totalling almost 17.5 million tonnes. Russia meanwhile supplied 8.5mt, or around 0.76% of the total in 2021. For agglomerated ores such as high value pellets, Ukraine' importance is much more significant. China imported 3.87mt of Ukrainian agglomerated ores in 2021, 17.2% of its total agglomerated iron ore imports. Pellets have been a key factor in China's ability to produce large volumes of steel during production restrictions and while limiting emissions to keep within government requirements. Pellet premiums are already being pushed higher by the disruption to Ukrainian supply.

FIGURE 2: UKRAINE SUPPLIES AGGLOMERATED ORES TO CHINA

Source: GTT, Kallanish

Coal and coke

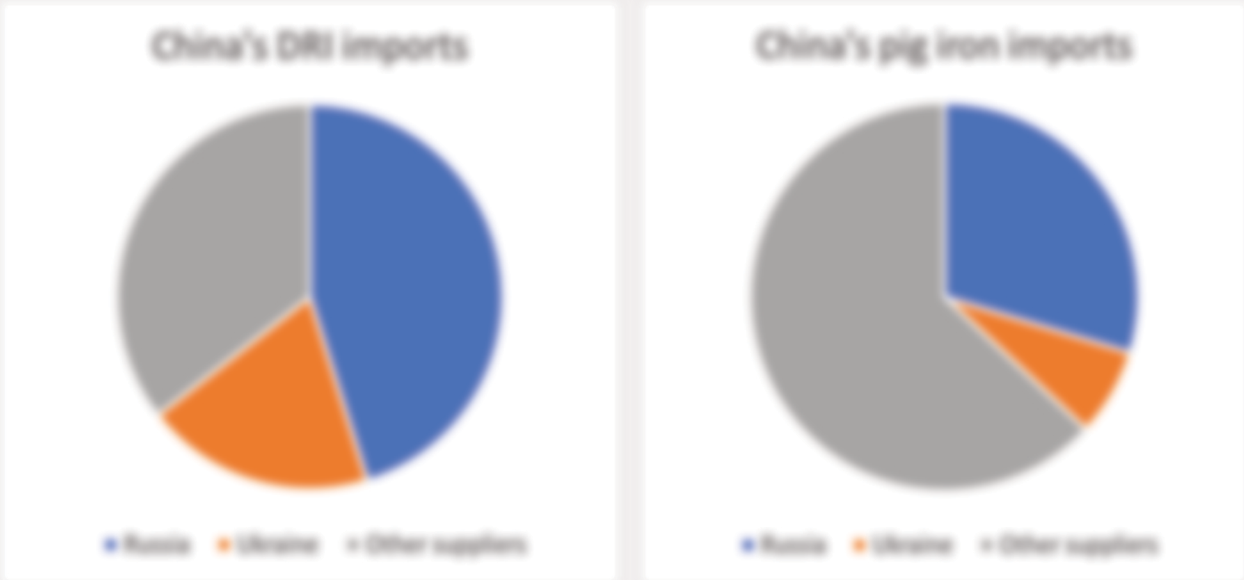
54.77mt of Russian coal went to China in 2021, some of its coking coal, including Siberian anthracite. That was a 62.6% increase y-o-y. China also imported 91,427t of Russian coke last year, down 70.4% y-o-y and 6.9% of total coke imports. China is likely to continue coal imports from Russia, although some banks will shy away from financing such deals. Any reduction in supply could help to support prices as China continues to shun Australian coal imports. China has large domestic reserves of coal however, and is taking measures to control domestic prices. The impact of the war on domestic coal and coke costs should therefore be small.

Metallics

Although pig iron imports were down y-o-y in 2021, both Russia and Ukraine remained significant suppliers. China imported 589,848t of Russian pig iron in 2021, down 57.8% y-o-y but still 29.7% of total imports. Imports from Ukraine were down 74.5% y-o-y at 145,879t last year, 7.3% of the total.

For DRI, Russia has also been an important supplier while China has been an importer. Imports from Russia were down 31.4% in 2021 to 717,704t. This was 45.2% of total imports, which were down 54.1% at 1.59mt last year.

FIGURES 3 & 4. RUSSIA AND UKRAINE SUPPLIED PIG IRON AND DRI IN 2021



Source: GTT, Kallanish

Semis

China has undergone a period of significant semi-finished steel imports in the two years since Covid upended markets, and both Russia and Ukraine have supplied semis to China. In 2020, the pair supplied around 22% of China's carbon and alloy semis imports at almost 4mt. Volumes were lower in 2021 however. China imported 771,825t of Russian semis, down 75.6% y-o-y and just 6.2% of total semis imports. It also imported 278,204t from Ukraine, down 60.3% y-o-y and 2.24% of the total. This trade could be disrupted by the war, but is more likely to be reduced by high global steel prices. Chinese imports are likely to be affected as offers cannot compete in the weaker domestic market.

FIGURE 5. CHINA IMPORTS RUSSIAN, SOME UKRAINIAN SEMIS

Source: GTT, Kallanish

Finished steel

China does not source a significant volume of finished steel from Russia or Ukraine. In 2020, imports were higher, and the pair accounted for around 568,00t of finished steel imports, excluding stainless, or around 2.9% of the total. In 2021 however this had fallen to less than57,000t, and less than 0.5% of the total.

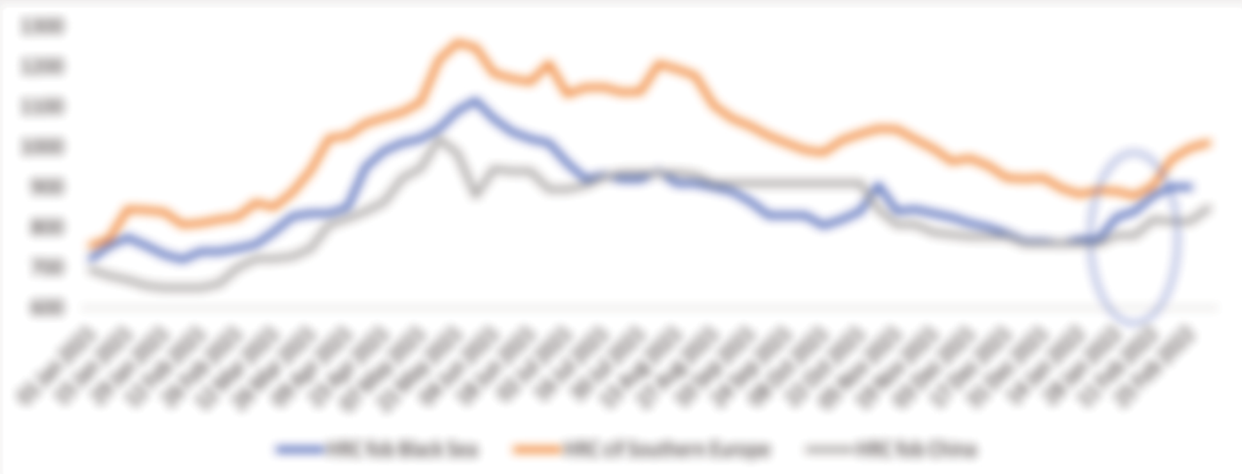
Stainless Steel

For stainless steel, there could be some limited impact on raw materials supply for particular companies sourcing from Russia or Ukraine, but the overall impact will be limited by the small volumes involved. China imported 240,018t of nickel ores from Russia in 2021, up 88.8% y-o-y but accounting for just 0.55% of total nickel ore imports. No nickel ore was imported from Ukraine. Ferro-nickel imports from Ukraine however were 164,184t in 2021, up from 102,451t the previous year. These were almost entirely going into Shaanxi province, suggesting Taiyuan Iron and Steel, and therefore Baowu Group, as the obvious buyer. Russia meanwhile is also a modest supplier of ferro-chrome after its shipments to China increased by more than ten times last year to 81,704t, or around 3.1% of China's total imports.

China's external trade and sanctions on Russia

Europe has imposed a series of restrictions on Russian companies and individuals that are upending local steel markets. This has already set off a surge in steel prices, especially for flat products. The shortage of supply has been exacerbated by the shutdown of mills in Ukraine, including ArcelorMittal Kryvyi Rih. ArcelorMittal announced Europe-wide price hikes alongside the closure of the plant. Tight European HRC markets have left other global suppliers eyeing that market for exports. India in particular has shifted much of its export focus to the west, following higher prices. The war has set off a recovery in global HRC prices, which are rapidly moving towards their mid-2021 highs.

FIGURE 6: WAR SPARKS HRC REBOUND



Source: Kallanish

Chinese exporters have already benefitted in Southeast Asian markets, where they are now providing the most competitive offers and are raising prices rapidly. Russian exporters could also look increasingly to Asian markets however, as they seek to replace lost opportunities in Europe. Russia has a free trade agreement with Vietnam and is also looking to increase its market share in Central Asia. Chinese exporters are therefore looking further afield in order to secure export bookings. With the speed at which prices are moving, even Europe is receiving new Chinese offers, alongside traditionally strong markets for China such as South America. Although Chinese export volumes are likely to start the year on a weak note, once these deals begin to crop up in the trade data, China's exports should increase faster than previously expected.

FIGURE 7: BILLET IMPORTS CANNOT COMPETE

Source: Kallanish

Energy costs

China is a net importer of energy products and so is likely to see inflation driven by fuel costs, especially for oil, LNG and natural gas. China has set a consumer inflation target of 3% this year, while in January it was just 0.9%, helped by easing food costs. Producer inflation however was already at a massive 9.1% in January and eventually some of that increase in costs will be passed on to consumers. Petrol pump prices have already reportedly seen some increases in China, a rarity in a market which has traditionally been heavily subsidized and dominated by state-owned companies.

China's response appears to be to let loose the reins on coal power. Details of policies for this year should emerge over the coming weeks, but comments from Xi Jinping and others make clear that China will look out for its own short term interests before emphasizing climate policies. China's coal power plants are primarily supplied from domestic mines, and fit neatly into China's resource security agenda.

This does not mean that energy costs will not increase. It may mean however that they do not increase as fast as in many other economies, especially those such as Germany which has become so dependent on imports from Russia over recent years. This could have some important impacts. China has long been a relatively expensive place to produce steel, but this could shift due to energy prices, making exports more competitive. The biggest beneficiaries may be Chinese EAFs. Although they are likely to remain at a cost disadvantage to BF-Bof steelmakers due to rising energy costs, they should become more competitive than imports. That is good news for struggling EAF projects which have seen very large investment over recent years only to struggle to increase utilization rates (see below).

The full impacts of the war, and the emerging stand-off between Nato and Russia and any potential spillover into Asia will be playing out over many years to come. CSI will continue to monitor the impact on China's steel industry and will be adjusting its forecasts accordingly.

Is China going to stimulate?

A first look at the government work report delivered by premier Li Keqiang and approved by the legislature on 5 March at the state of the 'Two Sessions' political meetings, shows the conflicting trends in the Chinese economy. China has big economic ambitions, and those ambitions cannot be achieved by wasted invested investment and excessive stimulus. But it also cannot afford a deep recession, especially as it sticks religiously to employment targets and growing disposable income in the midst of strong inflation. In 2021, the needle swung very much towards reform and reducing the flow of excess credit. That triggered a real

SUPPLY & DEMAND OVERVIEW

Despite the absence of official production data for the first two months of the year, there are resources available to paint a picture of what has been happening. Firstly, the ten-day production data for member mills of the China Iron and Steel Association (CISA) show sustained output through January, followed by a sharp dip and then a recovery in February. January output recovered another step from December, which had in turn recovered from the deep low of November. The Chinese New Year holiday in the first week of February meanwhile triggered another decline in output, followed by a recovery through the month.

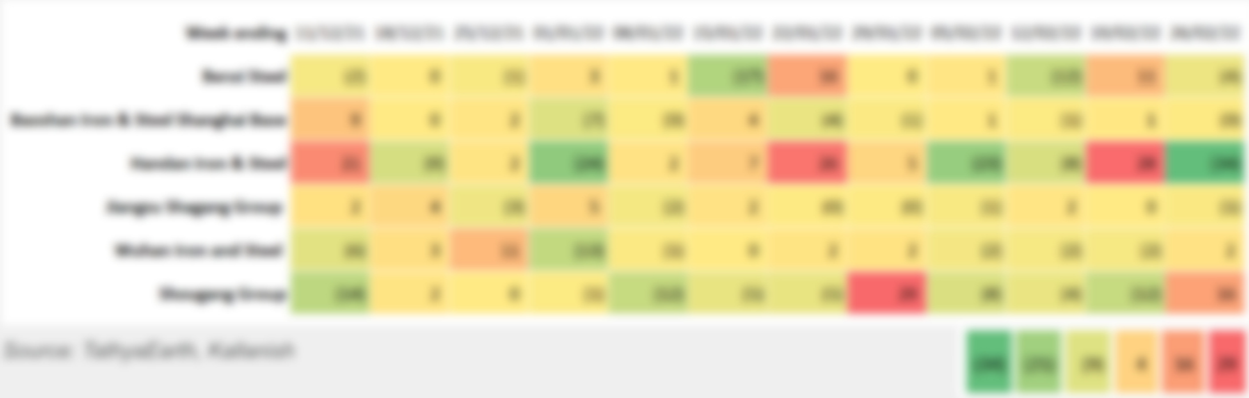
FIGURE 10: CISA MILL OUTPUT RECOVERS FROM NEW YEAR

Source: CISA, Kallanish

Satellite monitoring of key blast furnace producers suggests that the recovery of production at blast furnaces has continued to be policy driven, with fluctuations at plants such as Handan Iron and Steel seeing rapid responses when new measures are imposed. Overall however the majority of increases in production came in January, with February production levels seeing fluctuations by plant but much steadier in aggregate. This suggests that the increase in production in late February was largely driven by the return of EAF output.

China's shift towards a greater share of EAF steelmaking has enhanced seasonality of production, as many EAFs shut down over the holidays and let workers return to their families. This has not only been a question of tradition however. EAFs have seen their margins squeezed as domestic scrap prices remained firm even as China turned aggressively against iron ore prices last month. Even with another rebound in coke and coking coal costs, BF-BoF raw material costs remain consistently lower than EAF material costs, even before the recent hikes in electricity prices have been taken into account. According to a Fubao survey of 49 independent EAF steelmakers, operating rates returned to around 54.5% by the end of the first week of March. This had started the month in the single digits however.

FIGURE 11: SATELLITES SHOW BF ACTIVITY UNSTEADY BUT HIGHER



Source: [illegible], Kallanish

FIGURE 12: EAF COSTS SIGNIFICANTLY HIGHER THAN BOFS

Source: [illegible], Kallanish

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The slow resumption of production has balanced out the sluggish return of end user demand so far. This should support prices in the short term as end user demand enjoys a seasonal recovery into Q2. Although steel market inventories have increased as usual over the Chinese New Year holiday, they are not abnormally higher, and lower than a year ago. Inventories were slow to peak after the holiday, but now they have they are not at high levels considering this point in the cycle. Any weakness in prices due to slow stimulus this year, is therefore likely to be delayed until after the seasonal strong period for steel demand, as well as after the short term impacts of the Russian invasion of Ukraine have been absorbed.


2020 peak
2021 peak
2022 peak

MARKETS

Chinese steel markets had a dramatic February. Expectations for demand soared, price controls wiped out early gains, and the Russian invasion of Ukraine then sent commodities, especially raw materials soaring higher again. As a result, prices ended the month scattered, with domestic HRC down over the month, rebar roughly flat and export HRC higher. With the continuing war, a big month for domestic policy and the moment of truth for Chinese demand, March is likely to be another volatile month.

LONGS

Chinese construction steel markets have seen a slow pick up in demand over the three weeks since the end of the Chinese New Year holiday. This left inventories still increasing slightly by the end of February as production recovered as quickly as demand. In Shanghai at the end of February, 20mm HRB400 rebar was trading at CNY 4,620-4,640/tonne ($732-735/t), down CNY 60/t from a week earlier and CNY 10/t higher from the end of January. After a speculative jump at the start of the month, prices soon fell as demand disappointed and raw materials prices dropped (see below). While prices are now being pushed higher by the global increase in commodity prices, rebar begun to underperform HRC as the resumption of construction activity has been slower than manufacturing.

Wire rod export prices meanwhile increased over the month. First they were pushed higher by expectations of stronger domestic demand. Then a recovery in prices in Southeast Asia helped sustain Chinese offers, though with little trading activity. From early March, exporters are more actively looking for opportunities to sell as international markets have been thrown into turmoil by Russia's war. Kallanish assessed 6.5mm diameter mesh-grade wire rod at $770/tonne fob China at the end of February, unchanged on-week but $30/t higher over the month.

TABLE 3: LONGS PRICES

	2021	y-o-y	Jan-22	Feb-22	M-o-m	Y-o-y
Rebar (CNY/t)	4,878	29.5%	4,623	4,688	1.4%	8.3%
Wire rod fob ($/t)	783	58.7%	740	760	2.7%	12.6%

Source: Kallanish

FLATS

China's flat steel prices are now being supported by a more stable manufacturing sector over the last month, but they also did not benefit from as much of a speculative jump at the start of the month as rebar. Supportive policies for consumption in China have given confidence to manufacturers to remain active and keep buying materials for production through the coming months. In Shanghai at the end of February, 5.5x1,500mm Q235 HRC was traded at around CNY 4,890-4,910/t, down CNY 95/t week-on-week and CNY 70/t over the month. China's PMIs suggest the economic slowdown should not have too much of an impact on key flat steel consuming sectors in the short term, and the automotive sector still expects to see some growth this year, according to local associations. Spot HRC demand has been enough to start a decline in total inventories in early March.

Chinese HRC exporters had been short of hope in mid-February as, even when Indian mills exited the market to lift their own offers, Chinese material remained uncompetitive. The Russian invasion of Ukraine has driven a dramatic shift however. Not only are offer prices increasing everywhere, but markets are opening up to Chinese material. India is reportedly shifting some sales from Asia to Europe, in order to fill a gap left by the exclusion of Russian HRC and the shut down of plants in Ukraine. China may however face more competition in Southeast Asia from Russia, which is also looking for new markets after being shut out of Europe. Severstal in particular, previously not very active in Southeast Asian HRC, is reportedly targeting the region. Russia has a free trade agreement with Vietnam. Chinese exporters meanwhile are also looking for opportunities in Europe, where prices have jumped so high that they may be able to cover even elevated freight rates in the short term. Kallanish assessed 2mm SAE 1006 HRC at $810-820/t fob China at the end of February, up $35/t over the month, and prices are already rising rapidly in early March.

TABLE 4: FLATS PRICES

	2021	y-o-y	Jan-22	Feb-22	M-o-m	Y-o-y
HRC (CNY/t)	5,339	40.9%	4,963	5,003	0.8%	7.6%
HRC fob ($/t)	834	70.4%	765	808	5.6%	21.5%

FIGURE 15: FLATS PRICES

Source: Kallanish

RAW MATERIALS

Seaborne iron ore prices ended February more or less where they started, but it was a bumpy road to get there. The Kallanish KORE 62% Fe index finished February at $136.20/dry metric tonne cfr Qingdao, down $0.96/t from a month earlier. The Kallanish KORE 65% Fe index dropped $2.05/t over the same period to $164.26/dmt cfr, and the KORE 58% Fe index increased $6.27/t to $117.33/dmt cfr. The KORE 62% Fe index had reached $150.67/dmt cfr on 10 February as speculation of a strong return from the Chinese New Year holidays drove prices higher. China however was set against commodity inflation and moved aggressively to control prices. Higher trading costs on futures markets, investigations into traders seen to be driving prices higher and pressure on physical traders to make their port stocks available to lower prices soon brought about a downward correction. These measures could only go so far however, and with the war in Ukraine, China has limited tools to lower iron ore prices. In early March, iron ore has already exceeded the highest point in February. Behind all the speculative activity, spot markets have finally begun to tighten. In the last full week of February, stocks of iron ore across 35 ports finally fell 1.32mt to 154.07mt, according to a count by SMM, although this remains higher than the 149.02mt at the end of January.

Chinese domestic scrap prices meanwhile saw a less dramatic month. Any price increases were limited by the weak profitability of EAF steelmakers. In the two weeks after the Chinese New Year holiday, the vast majority of EAFs across the country were simply not operating as they could not guarantee profits at current prices. Activity began to tick higher at the end of the month, and the latest push higher for steel prices has left EAFs profitable again, but scrap supply has also been firm, limiting price increases. Trade has also been muted by a change in the tax regime from 1 March. (See policy section) On 28 February, 6mm+ heavy scrap delivered to mills in the Yangtze River Delta was assessed at CNY 3,635/t, up CNY 8/t from the end of January.

Chinese scrap import prices have been pushed higher by global offers, but this has only further limited import volumes. The combination of procedural difficulties and uncompetitive offers continues to hamper the Chinese scrap import market. Kallanish assessed Chinese HRS101 scrap imports at $595/t cfr China at the end of February, up by $25/t on-week and $45/t over the month.

TABLE 5. RAW MATERIALS PRICES

	2021	y-o-y	Jan-22	Feb-22	M-o-m	Y-o-y
KORE 62% Fe iron ore ($/dmt)	159	71.4%	131	142	8.1%	-13.5%
KORE 65% Fe iron ore	185	76.9%	158	171	8.2%	-9.1%
KORE 58% Fe iron ore	136	62.3%	103	120	16.8%	-19.8%
Yangtze delta heavy scrap	3,526	34.2%	3,629	3,651	0.6%	16.4%

Source: Kallanish

View full dataset in attached datafile (subscribers only)

Steel Data:	Sept	Oct	Nov	Dec
Crude steel production	73.75	71.58	69.31	86.19
Steel exports	4.92	4.50	4.36	5.06
Steel imports	2.72	2.49	3.26	2.17
Apparent steel consumption	67.99	66.12	64.74	79.02
Calculated real demand	78.54	72.08	72.91	86.45

INFLATION

Source: NBS

Macro data:	Sept	Oct	Nov	Dec
Manufacturing PMI (NBS)	49.60	49.20	50.10	50.30
Manufacturing PMI (Caixin)	50.00	50.60	49.90	50.90
CPI	0.70%	1.50%	2.30%	1.50%
PPI	10.70%	13.50%	12.90%	10.30%
FAI (CNY trillion)	39.78	44.58	49.41	54.45
Industrial Value-added	3.10%	3.50%	3.80%	4.30%

MANUFACTURING PMIS

Source: NBS, Caixin

Downstream data:	Sept	Oct	Nov	Dec
Real estate investment *	11,267	12,493	13,731	14,760
New Construction starts ytd**	1,529	1,667	1,828	1,989
Completed construction ytd**	510	573	688	1,014
Real estate sales ytd**	1,303	1,430	1,581	1,794

*(CNY billion) **million square metres

CHINA STEEL INTELLIGENCE

IN NEXT MONTH'S ISSUE

In the next issue we will review all key policy announcements from the Two Sessions.

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