India

Underweight *(no change)*

Highlighted Companies

Coal India

ADD, TP Rs233, Rs177 close

The strength in international coal prices will lead to higher e-auction prices for the company. EPS growth to be at ~21% CAGR over FY22F-24F, in our view.

Steel Authority of India

REDUCE, TP Rs60, Rs98 close

Higher coking coal prices will erode margins. In our view, consensus earnings estimates need to be cut massively over the next few months.

Kajaria Ceramics

ADD, TP Rs1432, Rs1061 close

We expect Kajaria Ceramics to continue to gain market share and outperform peers. Despite the pressure on profitability expected over the next six months, we expect volume growth and margins to stabilize from 2HFY23F. The stock is down ~25% over Jan-Mar 2022 and hence, prices in the worst of margin pressure.

Summary Valuation Metrics

P/E (x)	Mar22-F	Mar23-F	Mar24-F
Coal India	7.74	5.79	5.63
Steel Authority of India	6.59	91.47	82.86
Kajaria Ceramics	40.35	33.29	27.8

P/BV (x)	Mar22-F	Mar23-F	Mar24-F
Coal India	2.54	2.02	1.66
Steel Authority of India	0.82	0.81	0.8
Kajaria Ceramics	7.93	7.05	6.19

Dividend Yield	Mar22-F	Mar23-F	Mar24-F
Coal India	7.08%	7.08%	7.08%
Steel Authority of India	0%	0%	0%
Kajaria Ceramics	0.94%	1.41%	1.65%

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Commodities - Overall

LNG and coking coal prices to remain strong

- Europe's quest to diversify its gas sourcing led to extra demand on ROW (ex-Russia). We expect LNG slope to stay high vis-à-vis 11% historical average.
- Coking coal price to also remain high but may moderate from US$700/t currently. However, we believe thermal coal price will fall below US$200/t soon.
- LNG as well coking coal users may remain under margin stress, but producers of thermal coal are well-placed. Reiterate our Add rating on Coal India.

IEA's target too ambitious; European demand to increase LNG slope

Pricing of LNG contracts is usually done at LNG price (US$/MMBtu) = Constant + Slope (in terms of %) * Brent crude oil price. Given the GCV value of a barrel of oil, the equilibrium slope is 16.67% of Brent crude oil price. Given the International Energy Agency or IEA's target to get 37mt or ~49bcm supply of LNG for Europe from global market in 2022 and the demand-supply dynamics of the sector, the LNG slope is bound to go up. It's a negative development for industrial users of LNG in India. We still don't believe CGD (city gas distribution) demand will be impacted negatively as comfort will be the biggest factor for CGD consumers, but CNG (compressed natural gas) & industrial demand can be negatively impacted. For a city like Mumbai, the average price differential between CNG/kg and petrol/L has remained at ~Rs35 and never below Rs20 over the last 12 years. Higher CNG prices propel the switch to petrol, which is a problem for CNG sellers. Industrial users of LNG like tile-makers may also feel the brunt of rising fuel cost in the near term.

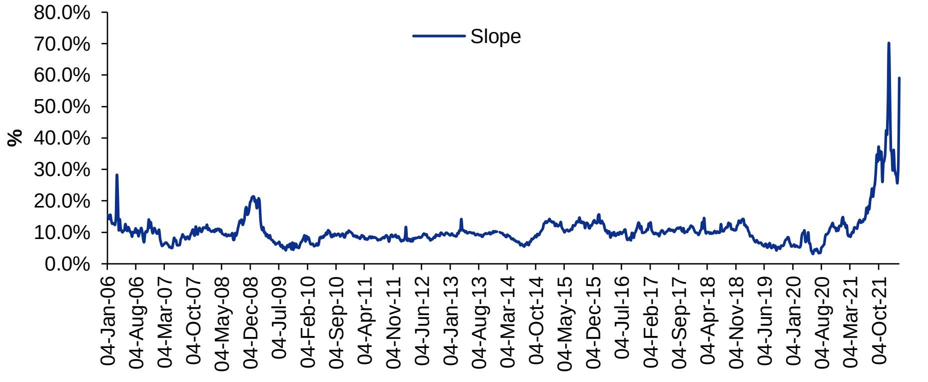
Coking coal and thermal coal – prices of latter to fall by at least 50%

While the world faces a scarcity of coking coal after Russia's exit from export markets (courtesy sanctions), European EAF makers' profits spreads are near -2SD of the long-term mean. However, a slowing world doesn't give them any pricing power, which means iron ore as well as scrap prices will fall. Also, Europe is shifting from gas to coal for raising its production. Please note that Europe can easily raise coal production by 200mt/annum but only over 9-18 months. Europe had mothballed 57GW of coal-fired plants which will also come into production in the next 9-12 months. At the same time, China and India are raising coal production. So, although 2022 will be a year of coal shortage, the worst of shortage is behind us, and prices will fall from now on. The onset of summer in Europe should lead to easing of shortage and hence, in next few weeks, coal prices should fall by 50% to around US$160-170/t. However, we don't expect such a significant correction in coking coal prices and at best, they can go back to US$500/t.

Negative for LNG users and steel makers, but positive for Coal India

Europe's quest to diversify its energy procurement base and stay away from Russia is critical for the rise in LNG slope. Hence, LNG prices will be higher at same crude oil prices vis-à-vis the recent past. This is negative for Indian tile-makers like Kajaria. While coal prices will fall over the next two years, we can expect them to be around US$160-170/t, which is good for e-auction realization of Coal India. Higher coking coal prices are negative for steel companies. SAIL is our top stock with a Reduce rating in steel sector.

Figure 1: LNG slope is already quite high and can remain so for a long period of time



SOURCES: INCRED RESEARCH, COMPANY REPORTS

LNG and coking coal prices to remain strong

Everything related to energy is on a rampage because a critical player in energy supply i.e. Russia has gone missing. While the world can deal with thermal coal as it can be found in ample quantity elsewhere, it's coking coal which will become a perennial problem. Steelmakers have hiked their prices by 15% or so, but we don't think a slowing world has the capability to absorb these prices. Steel and thermal coal prices will fall and so will steel margins. However, LNG price may remain higher at a given crude oil price vis-à-vis the recent past. As energy prices will fall consequently, aluminium prices may also decline.

LNG quest for Europe will increase the slope of LNG contracts

Global LNG demand and capacity are nearly running neck-to-neck. In this scenario, the availability of LNG vessels, long-term contract tie-ups, regasification capacity and just simple vessel scheduling issues are becoming big challenges for Europe to source LNG. Inevitability, Europe's quest to source more LNG will lead to a higher slope in LNG contracts, which will be negative for LNG users in India.

Gas flow from Russia to Europe has come down, and LNG imports are not enough ›

Russia sends gas to Europe, including Turkey, through different pipelines such as:

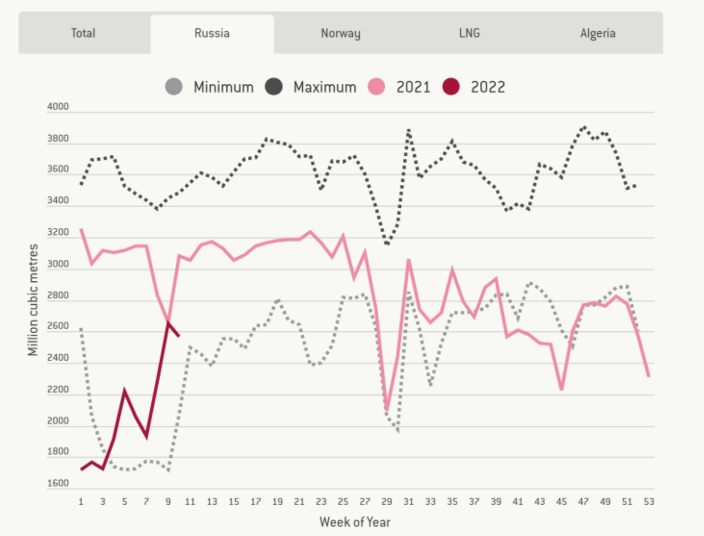
1. Vyborg-Imatra to Finland (6bcm/year).
2. Nord Stream -1 to Germany (55 bcm/year).
3. Yamal/Europol crossing Belarus to Poland (33 bcm/year).
4. Brotherhood, Soyuz, and Progress pipelines crossing Ukraine with different branches to Slovakia, Hungary, Poland, and Romania (146bcm/y with 40 bcm/y booked by Gazprom until 2024).
5. Turk Stream to Turkey (31.5 bcm/year).
6. Blue Stream to Turkey (16 bcm/year).

Russia's capacity to deliver natural gas to Europe is, in theory, much larger than its current exports, but in practice the use of pipelines crossing Ukraine has been progressively reduced to around 40bcm/year in 2021, as Russia has sought to move away from Ukraine.

Figure 2: As of now, gas is supplied to Europe through three pipelines - Yamal-Europe, Nord Stream, Soyuz, and Brotherhood

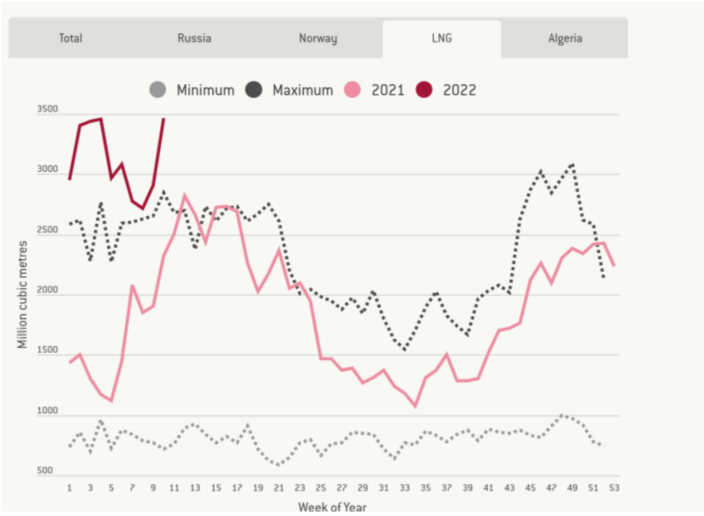
SOURCE: HTTPS://EN.WIKIPEDIA.ORG/WIKI/RUSSIA%E2%80%93UKRAINE_GAS_DISPUTES#/MEDIA/FILE:MAJOR_RUSSIAN_GAS_PIPELINES_TO_EUROPE.PNG

Figure 3: Russian gas imports in EU are clearly lagging 2021 levels



SOURCES: INCRED RESEARCH, HTTPS://WWW.BRUEGEL.ORG/PUBLICATIONS/DATASETS/EUROPEAN-NATURAL-GAS-IMPORTS/

Figure 4: LNG exports are increasing, but are not enough

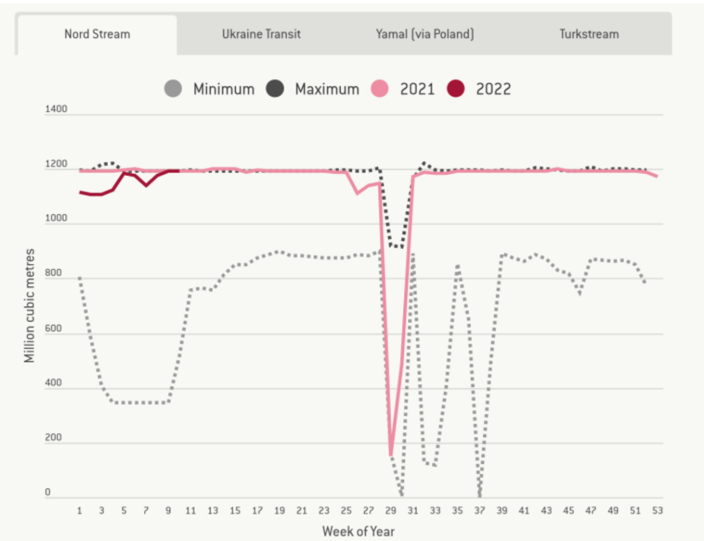


SOURCES: INCRED RESEARCH, HTTPS://WWW.BRUEGEL.ORG/PUBLICATIONS/DATASETS/EUROPEAN-NATURAL-GAS-IMPORTS/

Russia appears to have picked and chosen whom to supply and whom not in Europe ➤

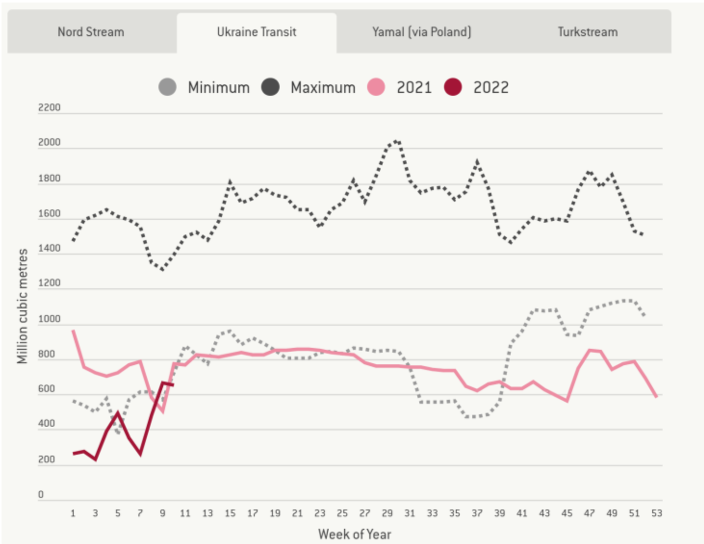
Nord Steam pipeline, which terminates in Germany, is working fine but gas transited through Ukraine in multiple pipelines like Yamal Europe, Brotherhood Blue Stream, etc. is lower than the lowest level registered in last seven years.

Figure 5: Nord Stream pipeline is working fine



SOURCES: INCRED RESEARCH, HTTPS://WWW.BRUEGEL.ORG/PUBLICATIONS/DATASETS/EUROPEAN-NATURAL-GAS-IMPORTS/

Figure 6: However, gas supplies through Ukraine are lower than the lowest level of last seven years

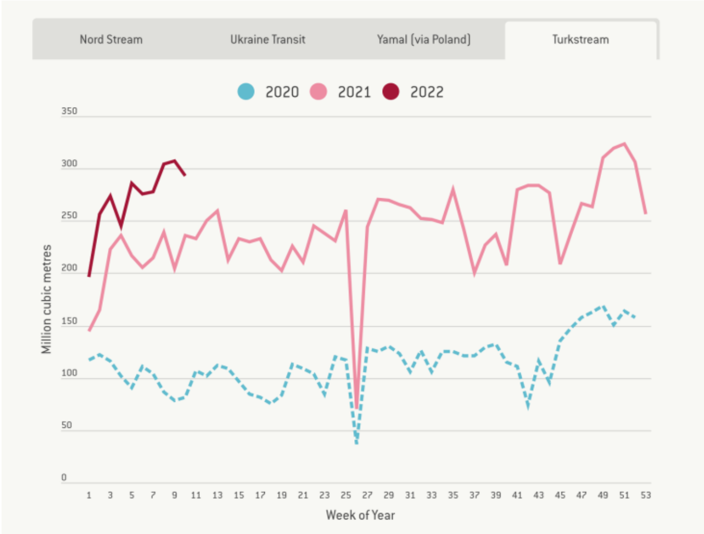


SOURCES: INCRED RESEARCH, HTTPS://WWW.BRUEGEL.ORG/PUBLICATIONS/DATASETS/EUROPEAN-NATURAL-GAS-IMPORTS/

Figure 7: The use of gas as a political tool is apparent as supply to Poland is at the lowest level of last seven years

SOURCES: INCRED RESEARCH, HTTPS://WWW.BRUEGEL.ORG/PUBLICATIONS/DATASETS/EUROPEAN-NATURAL-GAS-IMPORTS/

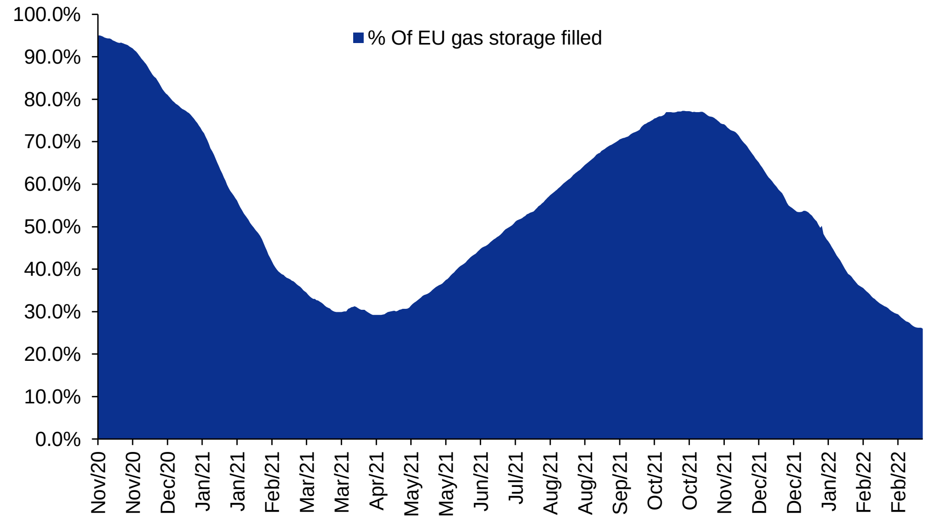
Figure 8: However, gas supply to Turkey is at the highest level of last three years



SOURCES: INCRED RESEARCH, HTTPS://WWW.BRUEGEL.ORG/PUBLICATIONS/DATASETS/EUROPEAN-NATURAL-GAS-IMPORTS/

Hence, European gas storage is precariously low ➤

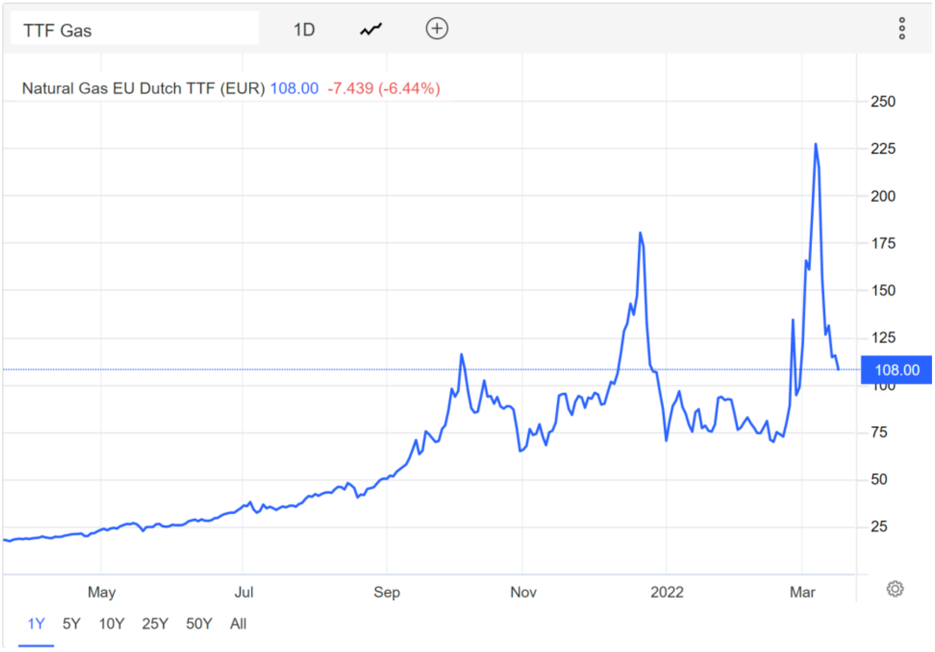
Figure 9: As of now, only around 26% of European gas storage capacity stands filled



SOURCES: INCRED RESEARCH, HTTPS://AGSI.GIE.EU/#/HISTORICAL/EU

Low gas storage led to panic in energy markets, and Dutch TTF has been extremely volatile ➤

Figure 10: Given the precarious gas storage situation, it's not surprising that Dutch TTF has been extremely volatile

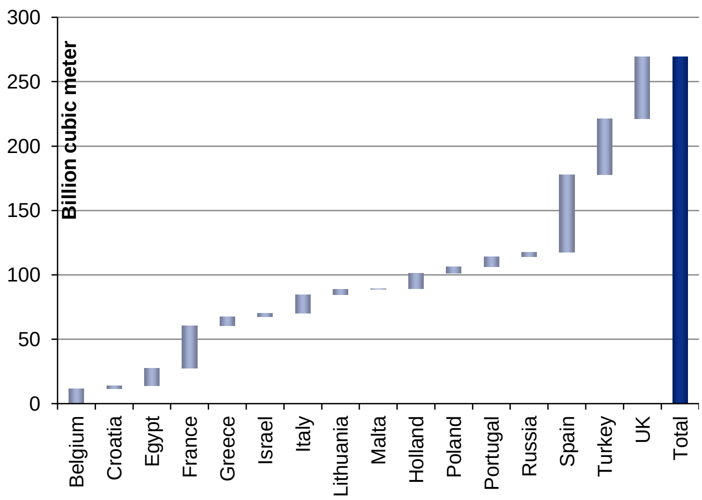


SOURCES: HTTPS://TRADINGECONOMICS.COM/COMMODITY/EU-NATURAL-GAS, INCRED RESEARCH

EU + UK has total ~269bcm LNG regas capacity, but all-weather friend USA might not be able to help in the short term ➤

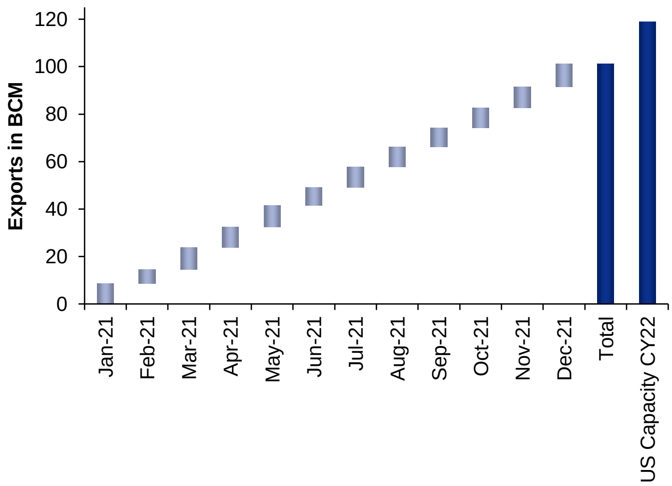
IEA has set a target to reduce dependency on Russian gas by two-thirds and for CY22F it has a target of importing ~49bcm of LNG. On the face of it, IEA's target seems stretched. Europe has ~269bn cubic metres, but it imported only 90bcm LNG in 2021. IEA has set a target to increase imports to 37mt or 49bcm by the end of this year.

Figure 11: Regasification capacity in Europe is ~269bn cubic metres



SOURCES: COMPANY REPORTS, INCRED RESEARCH

Figure 12: USA is already running near full capacity, but in CY22F its capacity will expand by 13bcm



SOURCES: COMPANY REPORTS, INCRED RESEARCH

Who else can help Europe in its quest for more LNG supply? It will have to source from multiple countries ➤

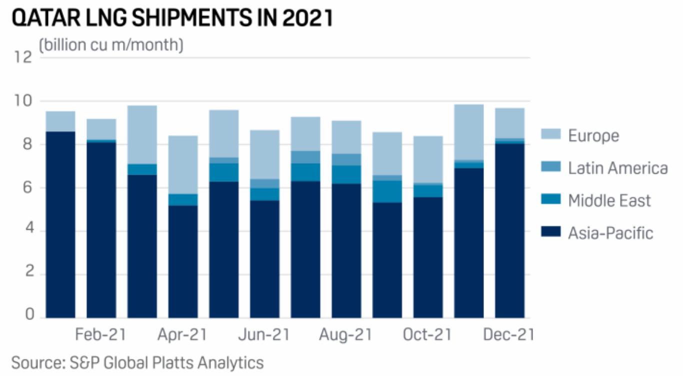
Europe's quest for 50bcm of LNG has to be met from multiples sources such as:

1. Australia - 10bcm.
2. Algeria - 15bcm.

3. Malaysia - 7-8bcm.
4. Indonesia - 10bcm.

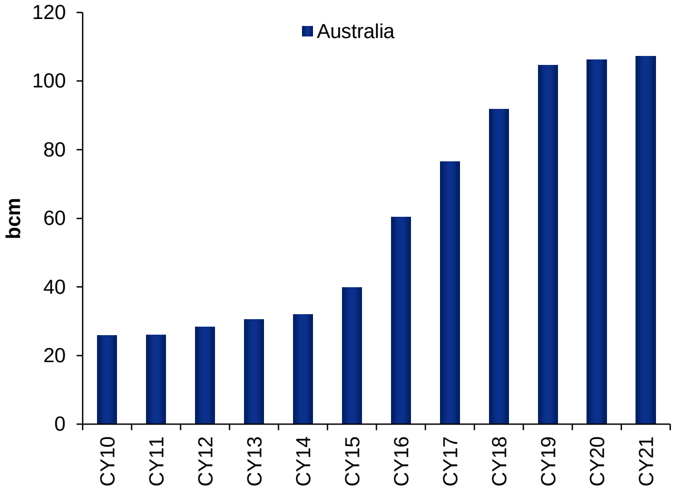
Traditional gas exporters like Qatar cannot help the EU much as it is running near full capacity.

Figure 13: Qatar is also running near full capacity, and its new trains will be commissioned only in 2025F



SOURCES: INCRED RESEARCH, HTTPS://WWW.SPGLOBAL.COM/COMMODITY-INSIGHTS/EN/MARKET-INSIGHTS/LATEST-NEWS/NATURAL-GAS/020422-FEATURE-QATAR-TAKES-CENTER-STAGE-IN-LNG-MARKET-AS-BUYERS-SEEK-SUPPLIES

Figure 14: Australia is at best 10bcm away from peak utilization



SOURCES: INCRED RESEARCH, COMPANY REPORTS

However, LNG plant outages are not helping Europe's cause to increase imports ➤

LNG plant outages continue to squeeze supply, helping to keep prices on the boil, as Russia's war with Ukraine heightens concerns about energy security.

Planned or unplanned shutdowns at liquefaction facilities are currently keeping at least 20mt/year of much-needed capacity off the market**.**

1. In Malaysia**,** Petronas' 30mt/year Bintulu LNG has faced problems since last one year relating to high mercury level in Pegaga gas field offshore Sarawak.
    - Pegaga is intended to feed the 7.7mt/year Malaysia LNG Tiga (MLNG 3) project, which forms part of Bintulu LNG. It was expected to start operations by the fourth quarter of 2021. An interim mercury removal unit was supposed to fix the problem, but the installation is proving challenging, partly due to strict measures designed to limit the spread of Covid-19 pandemic.
    - At the three-train MLNG Satu — also forming part of Bintulu LNG — the 2.8mt/year Train 2 went offline in late Feb 2022 to repair a leak. It was expected to be back by mid-Mar 2022F.
2. In Australia, Shell's 3.6mt/year Prelude floating LNG facility has been out of action since a fire in early Dec 2021. It looks increasingly unlikely to be back on track this quarter as strict Covid-19 rules slow down repairs, with a source suggesting it could reopen in May 2022F. Prelude lies offshore Western Australia, which lifted its travel entry ban only this month.
3. From European supply perspective, the biggest outage is at Norway's Snohvit LNG. The 4.2mt/year plant has not loaded a single cargo since Sep 2020, following a major fire. Operator Equinor said production should resume in May 2022F.
4. Nigeria's 22mt/year Bonny plant may be also having problems. The local media reported that Nigerian Agip Oil Co. had to declare force majeure at its Brass oil terminal last week after a fire on the Ogoda/Brass 24 oil pipeline, and the force majeure has reportedly affected the liquefaction facilities too. Loadings were steady last week, with weekly exports reaching 0.34mt, according to data analytics firm Kpler. While that's slightly lower than in the previous two weeks, it suggests the reported force majeure is likely having a

little impact on the plant. Still, continued upstream problems are keeping a lid on export upside.

5. In Trinidad and Tobago, Atlantic LNG's 3.3mt/year Train 1 has been off line since Dec 2020. Shareholders — BP, Shell and National Gas Co. of Trinidad and Tobago (NGC) — signed a heads-of agreement in Jan 2022 regarding a restructuring designed to ensure commercial viability.
6. Some liquefaction trains at Qatar's Ras Laffan were also believed to be either suffering from unplanned outages or undergoing planned maintenance in recent weeks.

In a nutshell, IEA is just optimistic currently and its quest for LNG may lead to increasing the slope of LNG contracts

LNG contracts are normally negotiated on US$/MMBTU basis. The normal contract pricing is – ***LNG prices in US$/MMBTU= Constant+ % of Brent crude prices or slope* Brent prices in US$/barrel***

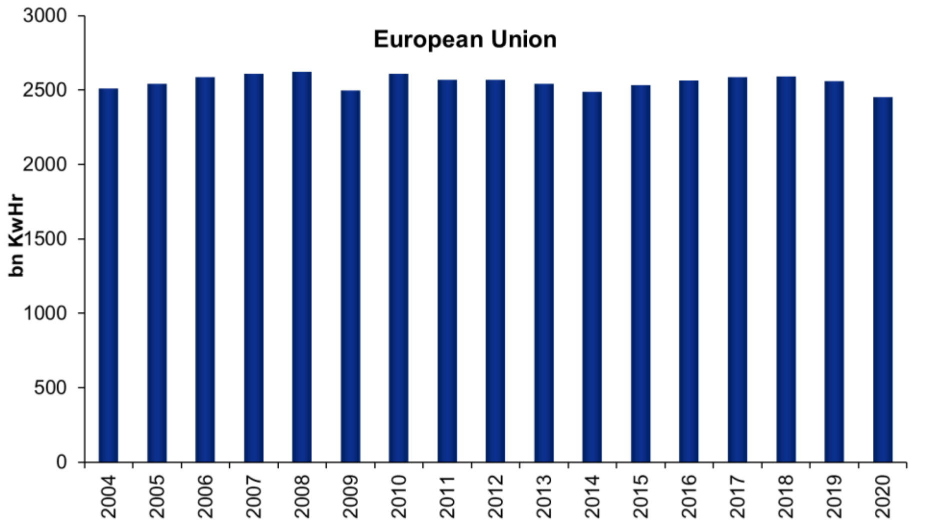
The rising demand for LNG from EU and UK will inevitably lead to an increase in slope of the contract, which, in our view, is negative for the users of LNG in India and elsewhere.

Thermal coal production can be increased relatively easily, but prices to fall below US$200/t

The rally in thermal coal is driven more by panic to store thermal coal as Europe has given a clear indication that it intends to shift to using more thermal coal. Europe and rest of the world are deliberately going away from thermal coal and hence, investment was dwindling in the sector. While we believe that coal prices will be higher than US$150/t (6,000Kcal/kg), they can also fall more than 50% from current levels.

Europe's annual power consumption is 2,500bn KwHr and it is ~21% of total energy consumption

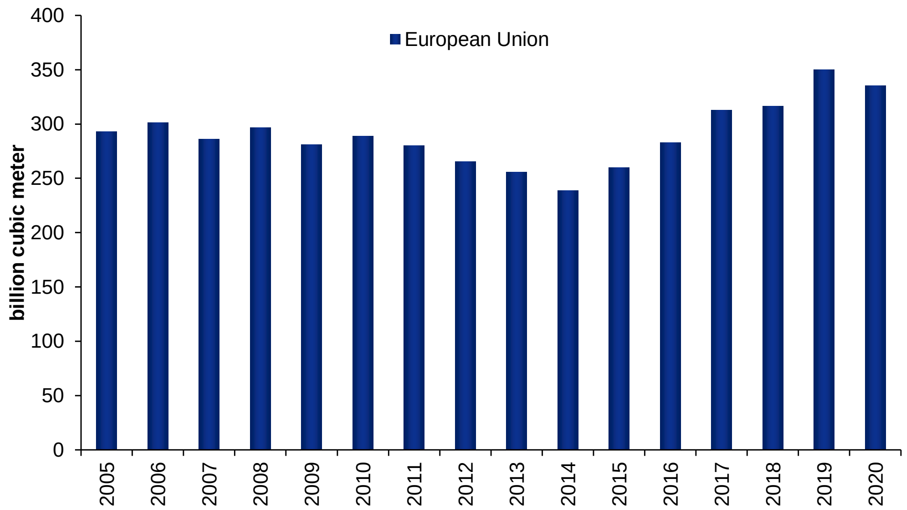
Figure 15: EU's annual power consumption is nearly 2,500bn KwHr



SOURCES: INCRED RESEARCH, COMPANY REPORTS

Gas is used for heating as well as power production in Europe, which is a net importer of gas

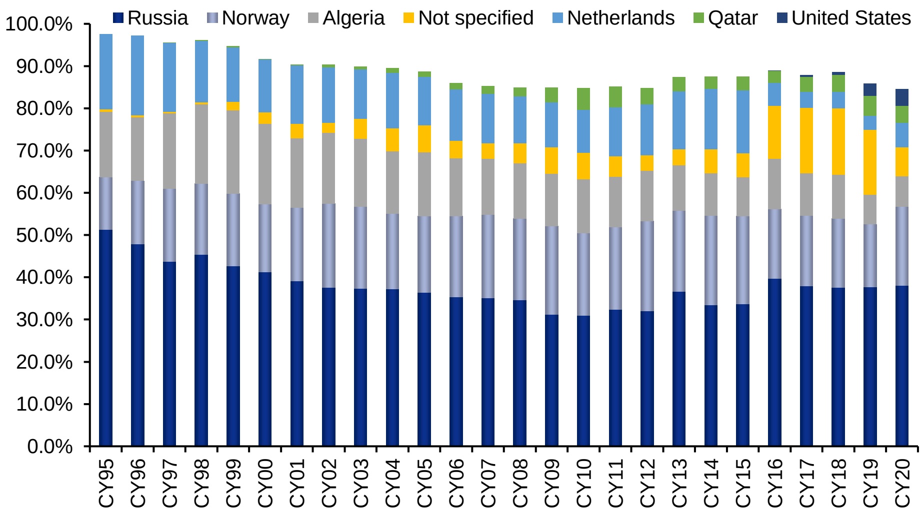
Figure 16: EU net gas imports touched 335bn cubic metres in 2020; Russia exports almost 200bn cubic metres of gas to EU



SOURCES: INCRED RESEARCH, COMPANY REPORTS

Importance of Russia for meeting EU gas requirement has been increasing over time

Figure 17: Russia met approximately 38% of EU's gas requirement in CY20



SOURCES: INCRED RESEARCH, COMPANY REPORTS

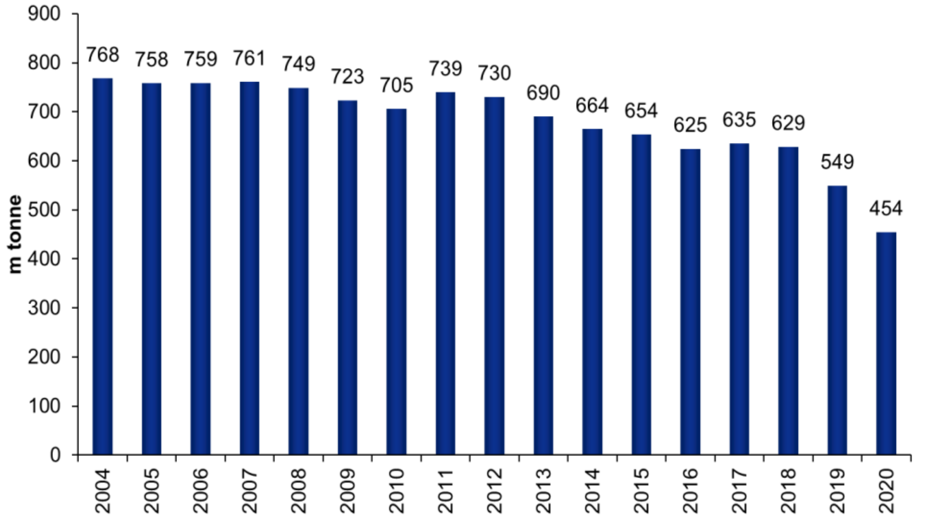
To reduce dependence on Russian gas, Europe is resorting to coal usage

EU Green Deal chief made a recent statement (Link here). The summary of the statement is as follows: "*The EU's Green Deal chief said countries planning to burn coal as an alternative to Russian gas could do so in line with the EU's climate goals." "There are no taboos in this situation," Frans Timmermans told the BBC Radio 4 Today programme on Thursday, 3rd Jan 2022. "The EU, and many of its member countries, have strongly backed natural gas as a stepping stone as it seeks to cut the use of coal, the most polluting fossil fuel, and move toward renewables. Just a month ago, much to the chagrin of campaigners, the European Commission defined gas as a sustainable investment.*"

How much and how soon Europe can increase coal production? 200mt/annum increase over six-to-nine months

Reducing coal production was a conscious decision taken by Europe as it was not running out of coal as such. Please see the chart below.

Figure 18: As shown in the chart, Europe has gone for a drastic cut in coal production to combat the climate threat - it can easily ramp up coal production by 200mt in a short span



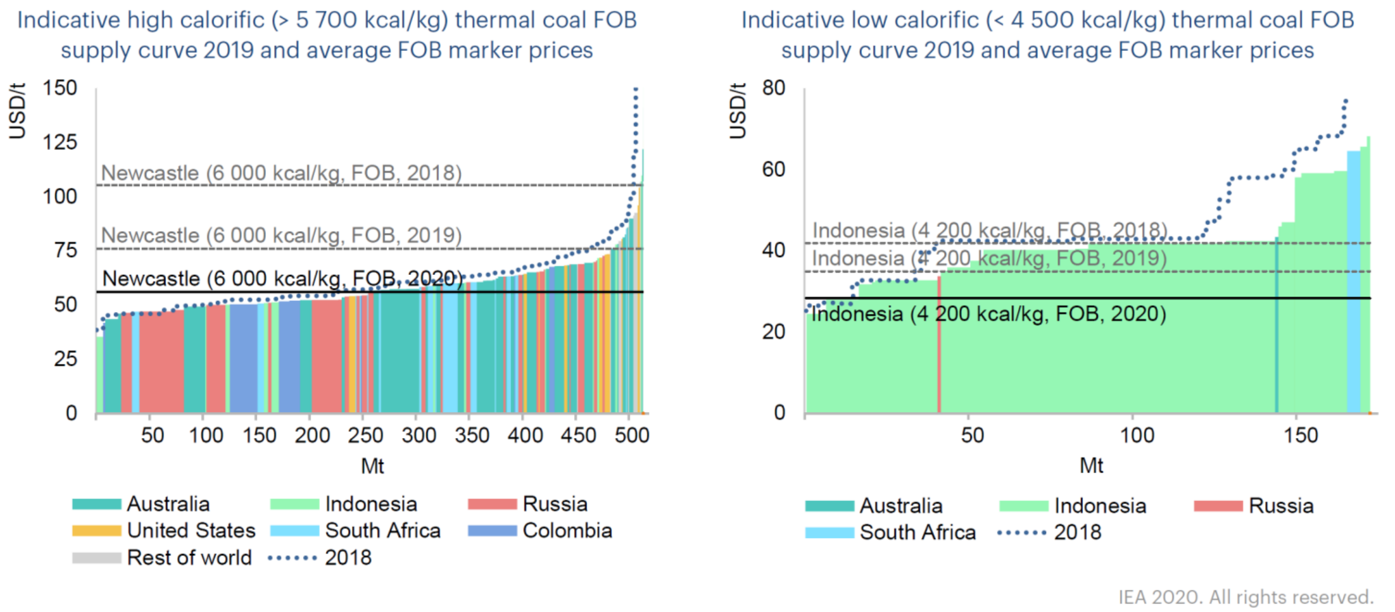
SOURCES: INCRED RESEARCH, WWW.ENERDATA.COM

200mt extra coal mining replaces 25% or 125bcm natural gas requirement of EU+UK

200mt coal can produce 400bn units of power or can fire ~51GW of thermal plants at 90% availability. The question is whether Europe has mothballed 51GW of coal-fired plants? The answer is yes. EU+ UK has approximately 121GW of operational coal plants and around 57GW of plants have been retired since 2016. These recently retired plants can easily replace 9% of gas power plants. Usage of coal will be polluting but will reduce gas dependency by ~125bn cubic metres.

Cost of production is increasing for thermal coal, new production viable only above US$150/t

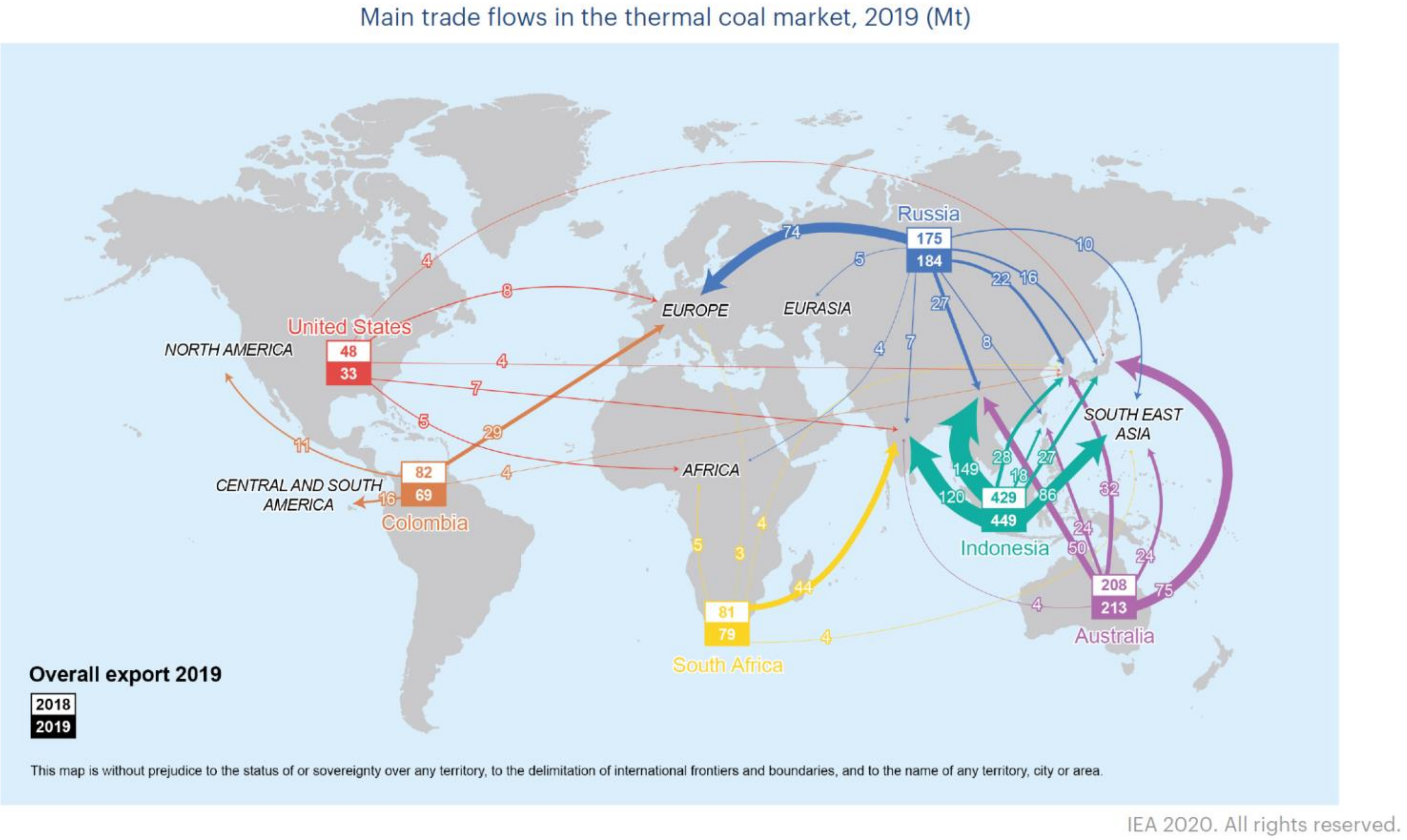
Figure 19: The cost of production is increasing across the board as mining grades are declining and lack of new investment is making operational cost higher



SOURCES: INCRED RESEARCH, COMPANY REPORTS

The trade patterns of coal makes it higly vulnerable in case of global supply chain shock ➤

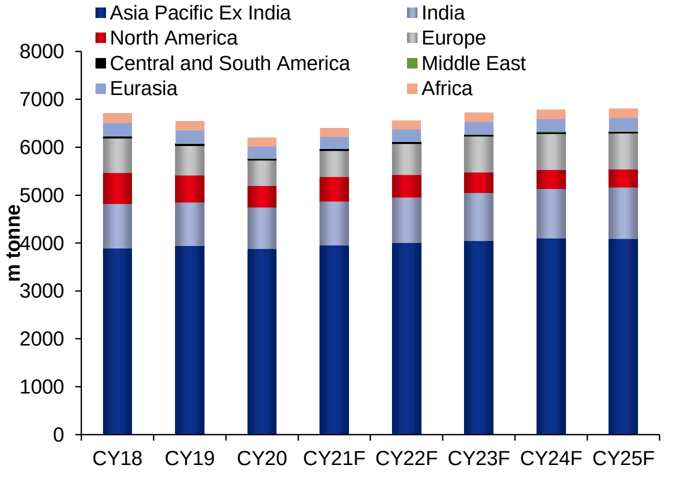
Figure 20: Given the quantum of trade of thermal coal, it's easy to visualize the havoc any supply chain problem can create on coal supply and thereby on its prices



SOURCES: INCRED RESEARCH, COMPANY REPORTS

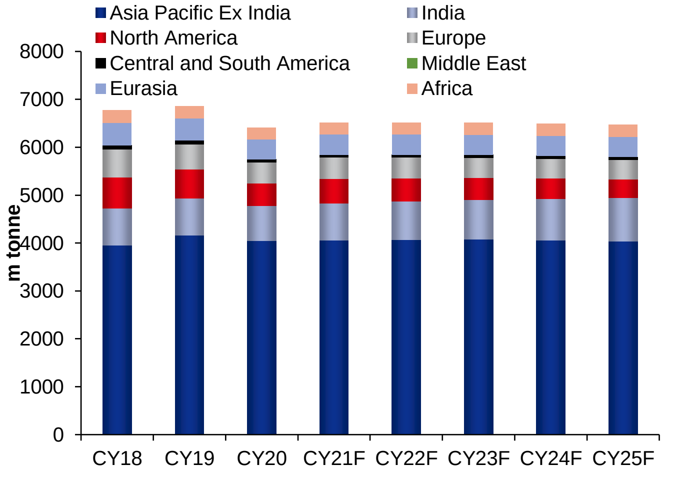
Global coal demand-supply is to a large extent dependent on Indian and European production ramp-up ➤

Figure 21: Indian coal demand is unlikely to decline in a hurry and Europe's production ramp-up is likely to be slow



SOURCES: INCRED RESEARCH, COMPANY REPORTS

Figure 22: We expect Europe to increase coal production by 25mt in CY22F and by 175mt in CY23F

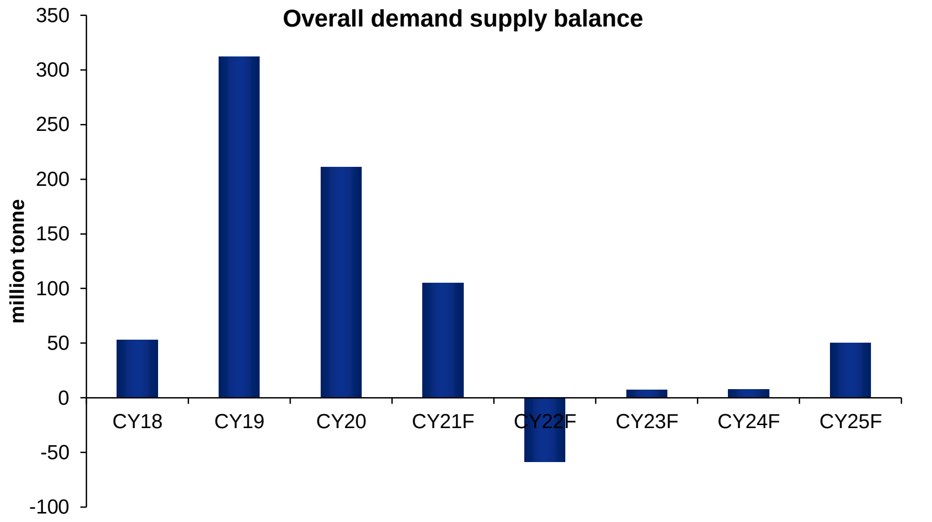


SOURCES: INCRED RESEARCH, COMPANY REPORTS

In our view, thermal coal shortage to remain throughout CY22F, but will be back in surplus position from CY23F

Our thermal coal supply assumptions assume that 50-60mt of Russian thermal coal exports will be out of the seaborne markets.

Figure 23: While thermal coal shortage is miniscule, a sudden surge in demand from Europe led to skyrocketing prices, which will cool down in a couple of months



SOURCES: INCRED RESEARCH, COMPANY REPORTS

Coking coal has its fate linked to natural gas availability, its prices to remain above US$500/t

Australian production ramp-up in coking coal has been disappointing

Production decline in Australia, high demand from India and China as well as supply chain problems are leading to elevated coking coal prices. The data on new mining investment from the ministry of mines in Australia doesn't paint a rosy picture. Only a single project by Glencore (8.5mt capacity for combined thermal and coking coal) in Mount Owen is slated in the near term (i.e., in CY22F) and all others are likely to come in or after CY23F. Ministry of mines in Australia projects only 176mt of coal exports in CY21F and 183mt in CY22F, which is insufficient to balance the export market.

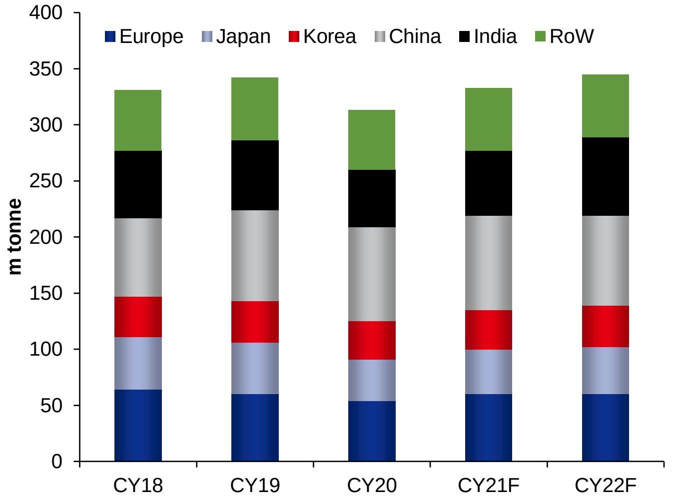
Figure 24: Coking coal projects in Australia are few and far in between

Type	Status	Annual Estimated New Capacity	Estimated Start Commercial Operation
New Project	Publicly announced	3.2	2026F+
New Project	Publicly announced	0.5	2024F+
New Project	Publicly announced	5	2026F+
New project	Publicly announced	5	2026F+
New project	Publicly announced	7	2024F

SOURCES: INCRED RESEARCH, COMPANY REPORTS

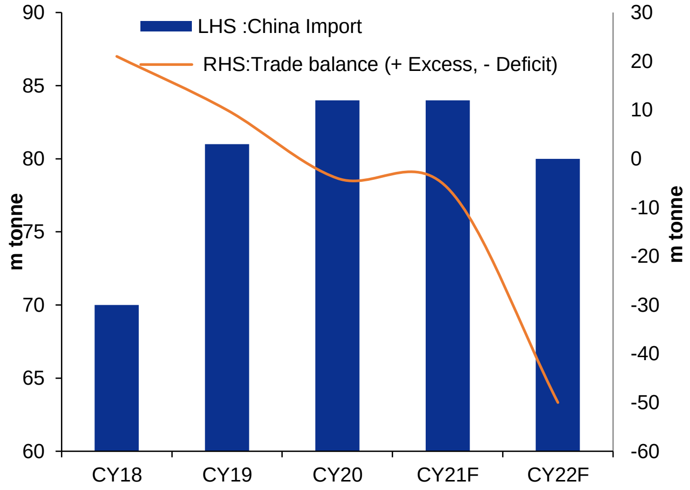
Assuming EAF production growth as well coking coal in huge shortage

Figure 25: China coking coal demand is likely to decline by only ~5-6%



SOURCES: INCRED RESEARCH, COMPANY REPORTS

Figure 26: With Russia going out of export market, coking coal shortage has risen by ~40mt or 11% of seaborne trade



SOURCES: INCRED RESEARCH, COMPANY REPORTS

So what is the solution before the world? Turn to EAFs

While Europe can turn to EAFs as it has sufficient capacity of the same, but the problem is same - power. With gas-based power prices skyrocketing, they cannot run their furnaces profitably.

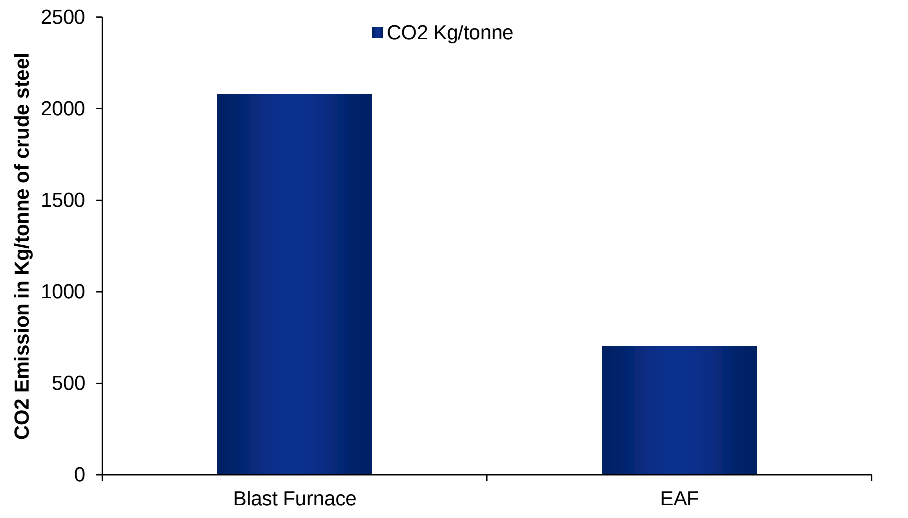
Barring India, at most places EAFs run on scrap and electricity

Barring 2020, when expectation of a global slowdown led to mothballing of many electric arc furnaces or EAFs and thereby lowered scrap consumption, global scrap usage has taken a positive turn since CY16. After CY16, to combat pollution, China has started to use EAFs in a big way. Going ahead, the rising usage of scrap will keep a lid on iron ore prices. The growing availability of scrap will also lead to lowering of the scrap/iron ore price ratio. We expect integrated steel players to feel the pinch because of falling steel prices in coming months.

Scrap is a cleaner source of making steel rather than iron ore ›

CO_2 emission in EAF-based steel-making is 67% lower compared to blast furnace-based steel manufacture.

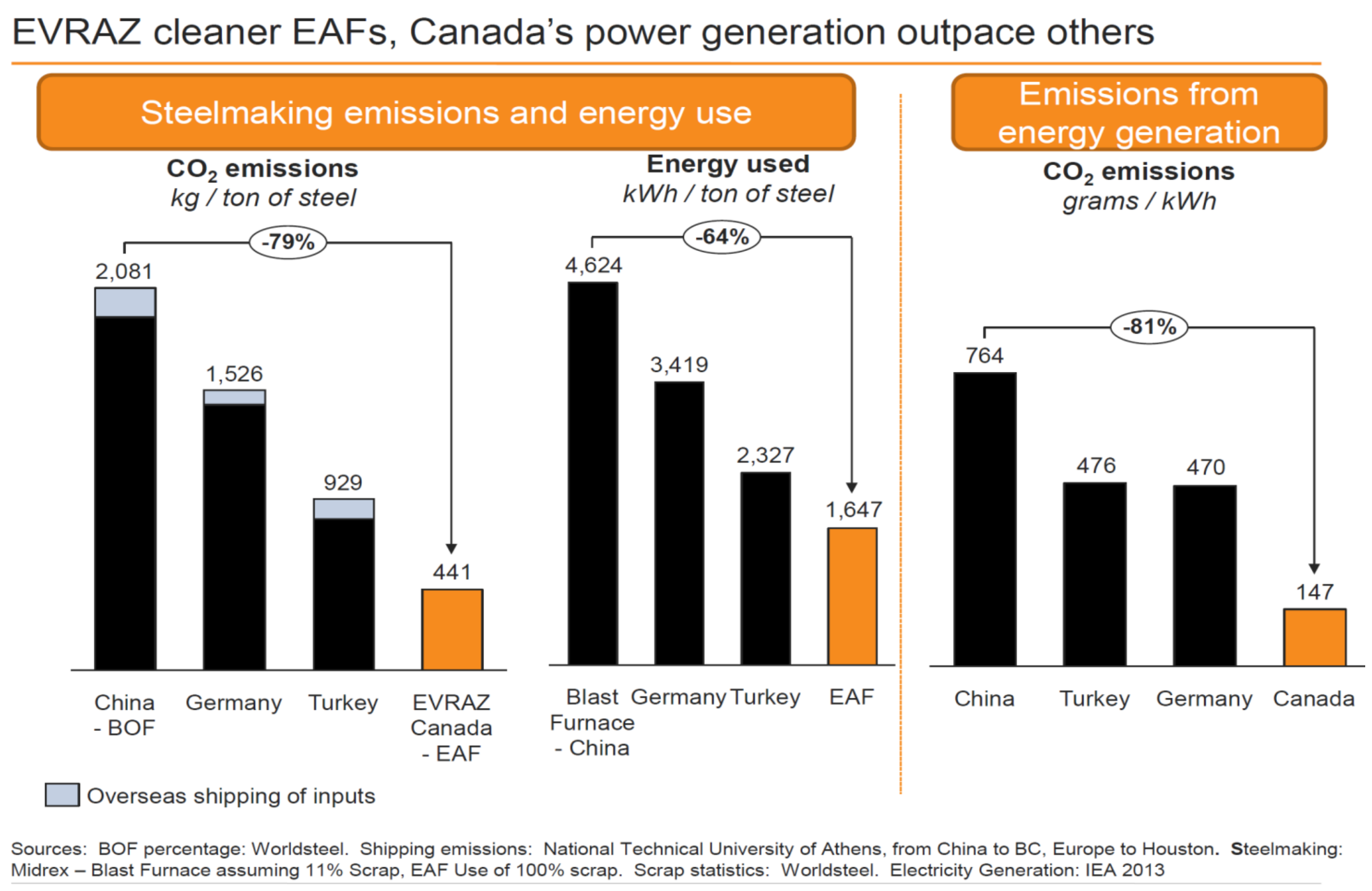
Figure 27: CO_2 emission under the EAF route is 67% less compared to the blast furnace route



SOURCES: INCRED RESEARCH, COMPANY REPORTS

Energy usage by EAF is also lower than that under BOF, and at the same time some EAFs are better than others ›

Figure 28: All EAFs are not of the same quality; as shown in the graph below, Turkish EAFs are worse than the western world's EAFs

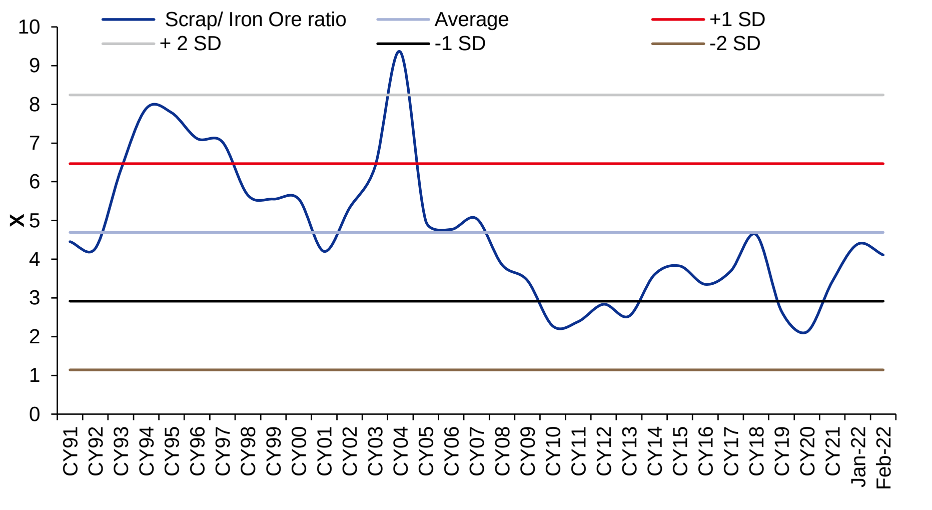


SOURCES: INCRED RESEARCH, EVRAZ COMPNAY PRESNETATIONS

At the same time, scrap is becoming cheaper compared to iron ore ➤

The last 30-year average ratio of scrap vis-à-vis iron ore has been 4.8. However, in the recent past, iron ore prices have risen too fast and scrap prices haven't kept pace. The time has come for a mean reversal.

Figure 29: Prices of scrap have not risen commensurate with the rise in iron ore prices in the recent past, and neither have they fallen with the same fervour



SOURCES: INCRED RESEARCH, COMPANY REPORTS

However, we don't expect any rise in scrap prices but rather a fall in iron ore prices is imminent ➤

While equity markets are going gung-ho, in fact the reality is that the world is slowing down. Iron ore prices were growing crazily because of supply problems which are getting resolved now. We expect iron ore prices to fall to US$100/t in the near term.

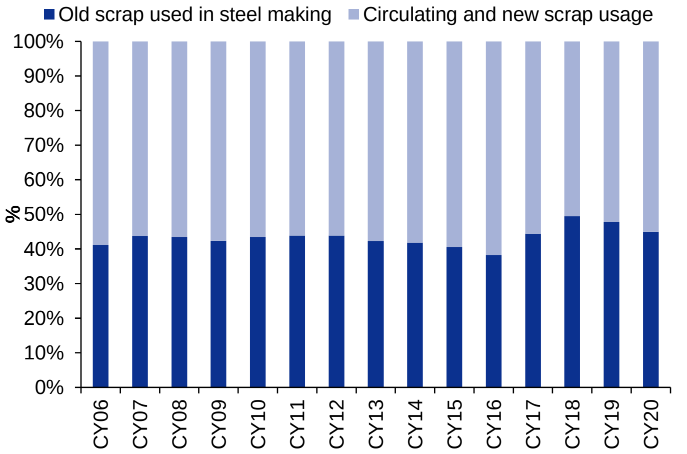
Rise in scrap usage is structural as it is less polluting, capex is lower and land requirement is lesser ➤

Scrap is less polluting (as shown in earlier paragraphs) and scrap-based furnaces are easy to switch on and off, which makes them ideal in the current world order where no one knows how sustainable the current demand pattern is. EAFs have lower capital cost, require less area and manpower costs are also lower. Also, at current carbon credit prices, they are straightaway saving at least US$40/t of crude steel.

Old scrap generation declined in CY20 because of Covid-related lockdowns ➤

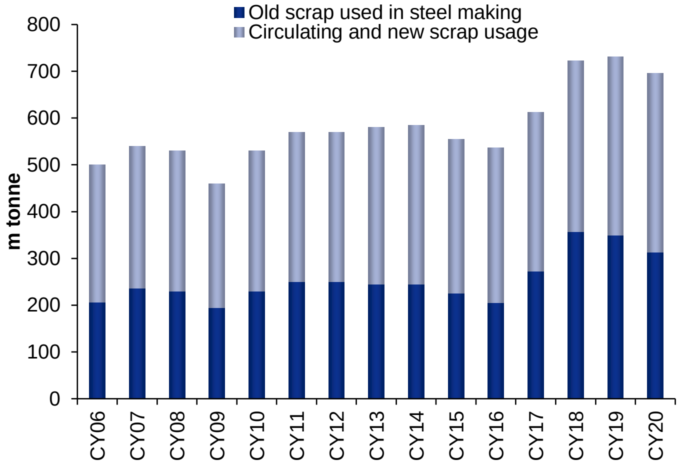
Steel scrap can be divided in two categories: 1) Circulating and new scrap, and 2) old scrap. Circulating and new scrap is generated during the steel production process, while old scrap is generated by the scrapping of old structures/ machines/buildings/automobiles etc. Old scrap generation is a function of the used metal pool available in the world.

Figure 30: Old scrap still forms around 42% of overall scrap usage by steel industry



SOURCES: COMPANY REPORTS, INCRED RESEARCH

Figure 31: CY20 saw a decline in old scrap usage because of Covid-led collection difficulty

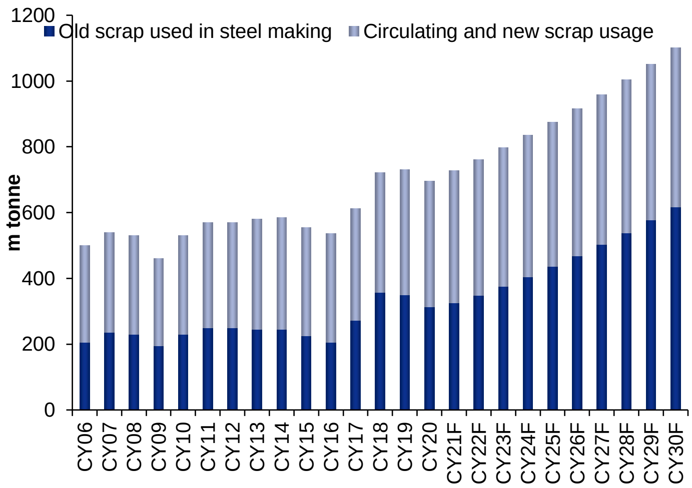


SOURCES: COMPANY REPORTS, INCRED RESEARCH

World has enough old scrap to feed 100mt of new electric arc furnaces over next three years, and China to lead this boom

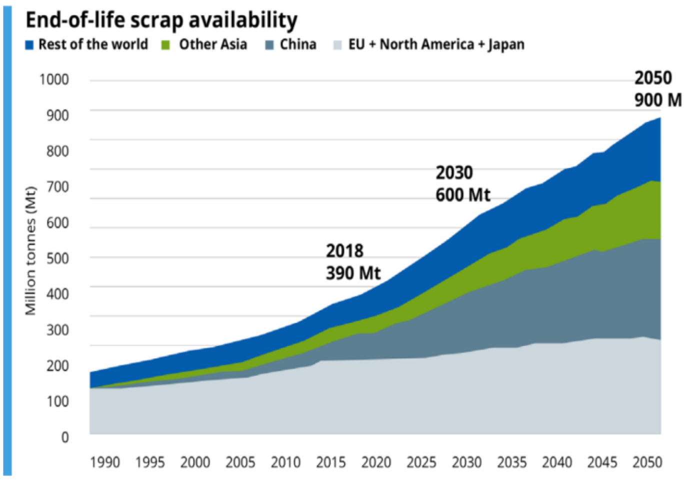
World Steel Association (WSA) forecasts that globally the total availability of old scrap pool is ~400mt in CY20. However, please note that it forecasts old scrap availability in China at 50-60mt whereas our calculation (based on 220mt of scrap usage by China in CY20) indicates that old scrap availability in China was at least 100mt in CY20 alone. So, as of now, old scrap availability in the world is at 430mt whereas the demand is only 315mt. So, the world can accommodate 100mt of extra EAF capacity over the next three years. Please note that most of these capacities could come up in China at the expense of old polluting capacity, as most of the incremental scrap generation will happen in China.

Figure 32: Given the global thrust on clean steel, most of the incremental demand for steel will be fulfilled by scrap



SOURCES: INCRED RESEARCH, WORLD STEEL ASSOCIATION

Figure 33: WSA underestimated scrap availability in China by at least 50mt in CY20



SOURCES: INCRED RESEARCH, WORLD STEEL ASSOCIATION FACT SHEET ON STEEL SCRAP

WSA underestimated old scrap availability in China by at least 50-60mt in CY20

Assuming global norms of circulating and new scrap, China would have generated this type of steel scrap of ~100mt. Hence, old scrap generation in CY20 was ~120mt, which was at least 50-60mt higher than that in the WSA model.

Figure 34: As per Bureau of International Recycling, China used 220mt of scrap in CY20, which means there was old scrap generation of 100-120mt

STEEL SCRAP USE FOR STEELMAKING IN KEY COUNTRIES AND REGIONS (MILLION TONNES)

	2016	2017	2018	2019	2020	% 2020/ 2019
China	90.1	147.9	187.8	215.9	220.3	+2.0
EU-28	88.4	93.3	90.939	86.473	77.539	-10.3
USA	56.7	58.8	60.1	60.7	50.0	-17.6
Turkey	25.9	30.27	31.317	27.900	30.077	+7.8
Russia	27.8	29.34	31.776	30.173	29.929	-0.8
Japan	33.57	35.77	36.513	33.682	29.179	-13.4
Republic of Korea	27.4	30.67	29.956	28.601	25.831	-9.7
Canada	*	6.29	6.67	6.28	*	

*Not available at editorial deadline

Source: EUROFER, CAMU, USGS/ISRI-calculations, Japan Ministry of Economy, RUSLOM, KOSA, TCUD, CARI

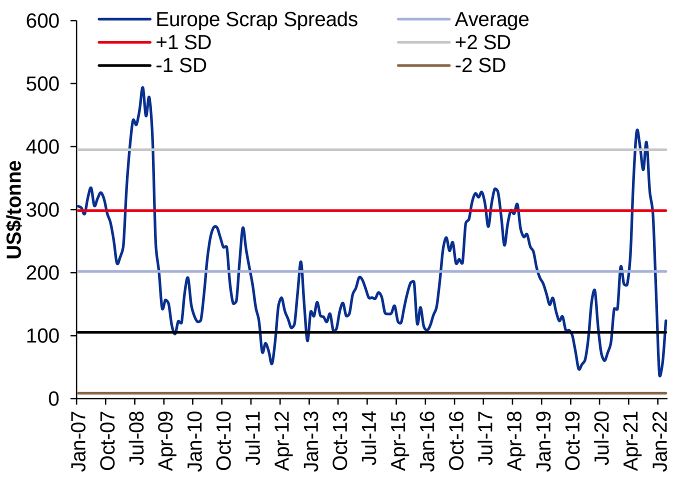
SOURCES: INCRED RESEARCH, BUREAU OF INTERNATIONAL RECYLCING FERROUS DIVISION 2016-2020 REPORT

However, recent policy change in China raises the question of the pace of changes to EAFs

China has recently shifted emission target for its steel Industry from 2025F to 2030F. This, in fact, gives a free hand for blast furnaces. Moreover, with the likely rouble-yuan swap window, China may get cheapest coking coal in the world.

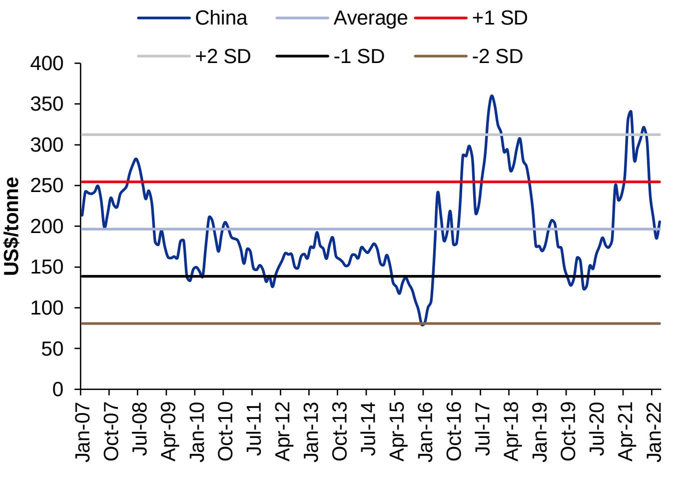
High power prices have eroded European EAFs' gross profits, but they are still very high in China

Figure 35: High power prices have led to a collapse in EAF margins in Europe



SOURCES: INCRED RESEARCH, STEELMINT

Figure 36: Chinese EAF spreads have also topped out



SOURCES: INCRED RESEARCH, COMPANY REPORTS

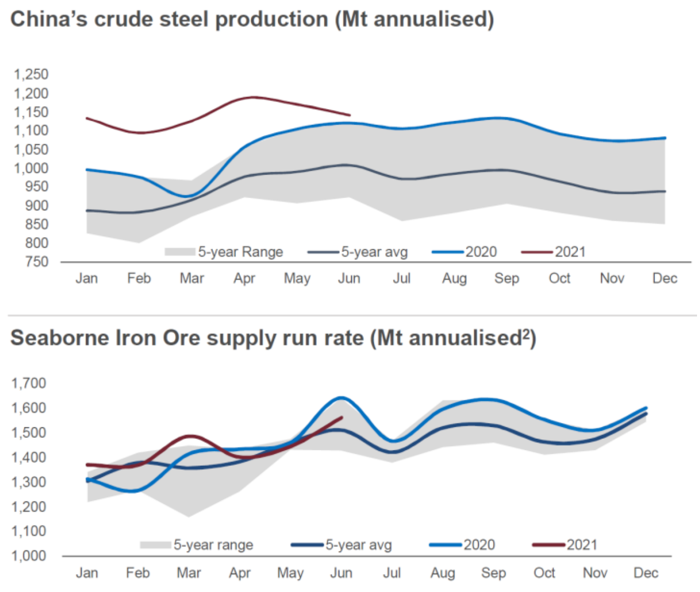
What does this mean for iron ore? A fall in its prices?

Shipping constraints are keeping iron ore prices high by at least US$30/t. It is not that the world is suddenly growing too fast and there are not enough ships to carry the cargo, but it is just Covid-related congestion at ports. There is no reason for iron ore prices to remain so high. Once the world gets over this Covid pandemic, learns to live with it and heightened Covid protocol at ports is relaxed, there will be smooth and decongested ports, which will lead to 62% CFR China prices - at US$100/t or lower.

Does this mean that iron ore prices will fall immediately? We don’t know the answer ➤

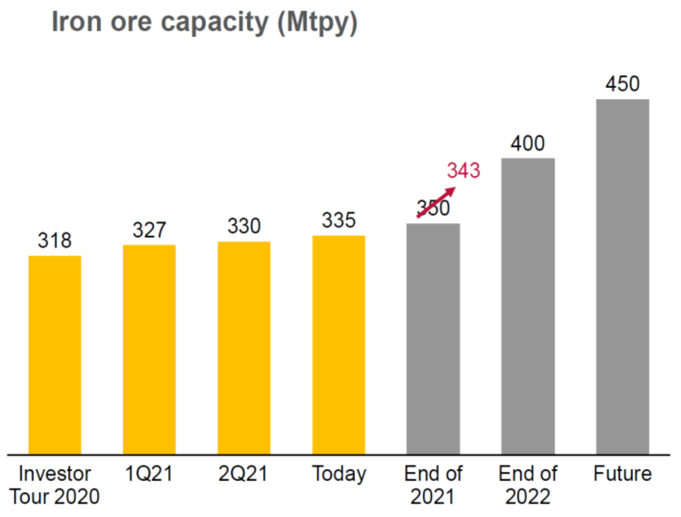
Iron ore is up on speculative interest, which wanes in a jiffy and can go on for a long period of time.

Figure 37: As per a Rio Tinto presentation, global iron ore supply is trending upwards



SOURCES: COMPANY REPORTS, RIO TINTO INVESTOR P0RESENTATION

Figure 38: Vale’s production is also likely to increase in the coming quarters



SOURCES: COMPANY REPORTS, VALE INVESTOR PRESENTATION

Coking coal and gas prices cannot fall unless peace prevails in Europe ➤

As stated earlier, coking coal and LNG are both in tight supply and any global slowdown limits the scope for steel prices to rise. Hence, it’s likely that iron ore prices will fall further to US$100/t or below.

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The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date. CGS-CIMB Thailand does not confirm nor certify the accuracy of such survey result.

Score Range:	90 - 100	80 – 89	70 - 79	Below 70	No Survey Result
Description:	Excellent	Very Good	Good	N/A	N/A

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Corporate Governance Report of Thai Listed Companies (CGR). CG Rating by the Thai Institute of Directors Association (Thai IOD) in 2021, Anti-Corruption 2021

ADVANC – Excellent, Certified, **AMATA** – Excellent, Certified, **ANAN** – Excellent, n/a, **AOT** – Excellent, n/a, **AP** – Excellent, Certified, **ASP** – Excellent, n/a, **AWC** – Excellent, Declared, **AU** – Good, n/a, **BAM** – Very Good, Certified, **BAY** – Excellent, Certified, **BBL** – Excellent, Certified, **BCH** – Very Good, Certified, **BCP** - Excellent, Certified, **BCPG** – Excellent, Certified, **BDMS** – Excellent, n/a, **BEAUTY** – Good, n/a, **BEM** – Excellent, n/a **BH** - Good, n/a, **BJC** – Very Good, n/a, **BLA** – Very Good, Certified, **BTS** - Excellent, Certified, **CBG** – Very Good, n/a, **CCET** – n/a, n/a, **CENTEL** – Excellent, Certified, **CHAYO** – Very Good, n/a, **CHG** – Very Good, n/a, **CK** – Excellent, n/a, **COM7** – Excellent, Certified, **CPALL** – Excellent, Certified, **CPF** – Excellent, Certified, **CPN** - Excellent, Certified, **CPNREIT** – n/a, n/a, **CRC** – Excellent, Declared, **DELTA** - Excellent, Certified, **DDD** – Excellent, n/a, **DIF** – n/a, n/a, **DOHOME** – Very Good, Declared, **DREIT** – n/a, n/a, **DTAC** – Excellent, Certified, **ECL** – Excellent, Certified, **EGCO** - Excellent, Certified, **EPG** – Excellent, Certified, **ERW** – Very Good, Certified, **GFPT** - Excellent, Certified, **GGC** – Excellent, Certified, **GLOBAL** – Excellent, n/a, **HANA** - Excellent, Certified, **HMPRO** - Excellent, Certified, **HUMAN** – Good, n/a, **ICHI** – Excellent, Certified, **III** – Excellent, Declared, **INTUCH** - Excellent, Certified, **IRPC** – Excellent, Certified, **ITD** – Very Good, n/a, **IVL** - Excellent, Certified, **JASIF** – n/a, n/a, **JKN** – n/a, Certified, **JMT** – Very Good, n/a, **KBANK** - Excellent, Certified, **KCE** - Excellent, Certified, **KEX** – Very Good, Declared, **KKP** – Excellent, Certified, **KSL** – Excellent, Certified, **KTB** - Excellent, Certified, **KTC** – Excellent, Certified, **LH** - Excellent, n/a, **LPN** – Excellent, Certified, **M** – Very Good, Certified, **MAKRO** – Excellent, Certified, **MC** – Excellent, Certified, **MEGA** – Very Good, n/a, **MINT** - Excellent, Certified, **MTC** – Excellent, Certified, **NETBAY** – Very Good, n/a, **NRF** – Very Good, Declared, **OR** – Excellent, n/a, **ORI** – Excellent, Certified, **OSP** – Excellent, n/a, **PLANB** – Excellent, Certified, **PRINC** – Very Good, Certified, **PR9** – Excellent, Declared, **PSH** – Excellent, Certified, **PTT** - Excellent, Certified, **PTTEP** - Excellent, n/a, **PTTGC** - Excellent, Certified, **QH** – Excellent, Certified, **RAM** – n/a, n/a, **RBF** – Very Good, n/a, **RS** – Excellent, Declared, **RSP** – Good, n/a, **S** – Excellent, n/a, **SAK** – Very Good, Declared, **SAPPE** – Very Good, Certified, **SAWAD** – Very Good, n/a, **SCB** - Excellent, Certified, **SCC** – Excellent, Certified, **SCGP** – Excellent, Declared, **SECURE** – n/a, n/a, **SHR** – Excellent, n/a, **SIRI** – Excellent, Certified, **SPA** – Very Good, n/a, **SPALI** - Excellent, Certified, **SPRC** – Excellent, Certified, **SSP** - Good, Certified, **STEC** – Excellent, n/a, **SVI** – Excellent, Certified, **SYNEX** – Very Good, Certified, **TCAP** – Excellent, Certified, **THANI** – Excellent, Certified, **TIDLOR** – n/a, Certified **TISCO** - Excellent, Certified, **TKN** – Very Good, n/a, **TOP** - Excellent, Certified, **TRUE** – Excellent, Certified, **TTB** - Excellent, Certified, **TU** – Excellent, Certified, **TVO** – Excellent, Certified, **VGI** – Excellent, Certified, **WHA** – Excellent, Certified, **WHART** – n/a, n/a, **WICE** – Excellent, Certified, **WORK** – Good, n/a.

- CG Score 2021 from Thai Institute of Directors Association (IOD)
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Recommendation Framework

Stock Ratings	Definition:
Add	The stock's total return is expected to exceed 10% over the next 12 months.
Hold	The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
Reduce	The stock's total return is expected to fall below 0% or more over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings	Definition:
Overweight	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
Neutral	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
Underweight	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

Country Ratings	Definition:
Overweight	An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
Neutral	A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
Underweight	An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.