



AUGUST 2021

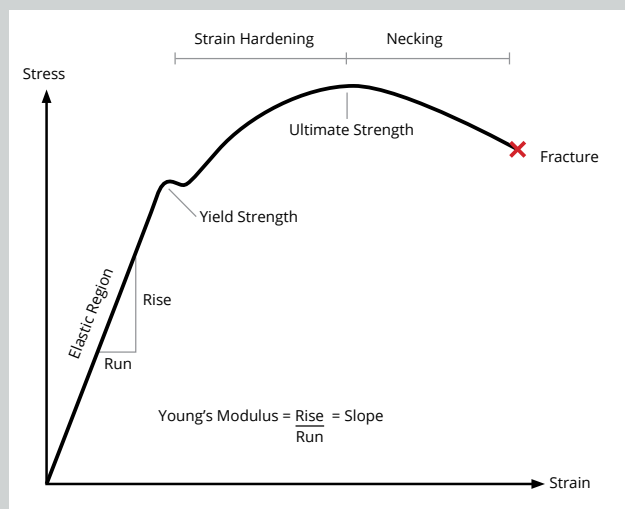
# PROCUREMENT UPDATE

# MARKET MODULUS

## Summary Statement:

Like Young's Modulus of elasticity in tension, since December the international finished steel price curve has undergone a steep run-rise slope appearing to near the point of yield strength prior to strain hardening – meaning further increases are still to be realised in local market prices. This includes stainless steel which is behind carbon steel on the price curve.

With global economies starting a growth cycle and ongoing delays of material through the supply chain, coupled with shipping costs which continue to climb, landed product pricing has further to go.



Source: Wikipedia

The result of expanding lead times has necessitated buyers to further increase orders at mills, just to keep pace. Due to the increased orders, mills are producing at 100% of effective capacity, shifting pricing power firmly towards them. As a result, price increases continue to be rapidly passed through by manufacturers - revealing the present inelastic modulus of steel pricing at least in this environment.

Obviously, the key question remains, 'how long will the curve go'? The current assessment is at least through 2022.

## GENERAL COMMENTARY:

Since December international steel prices have risen nearly 60%, as commodities have rallied around the globe. The price increases have generally resulted from mills being unable to quickly recover from capacity cuts made during the pandemic. This has made metals just one more commodity that has experienced high demand during this period of tight supply.

Steel prices won't go up forever however, history suggests they are nearing a peak. Since the start of the 2000's, there have been four previous steel surges in which prices rose between 30% and 85% - the largest occurred in 2008.

Some commodity future markets have dampened in recent weeks as China continues to send mixed statements about how it will keep their economy growing while achieving climate goals, and the fast spreading 'Delta' COVID variant presents key risks to their and many other world economies.

There are several forces underpinning the increasing price curve at present:

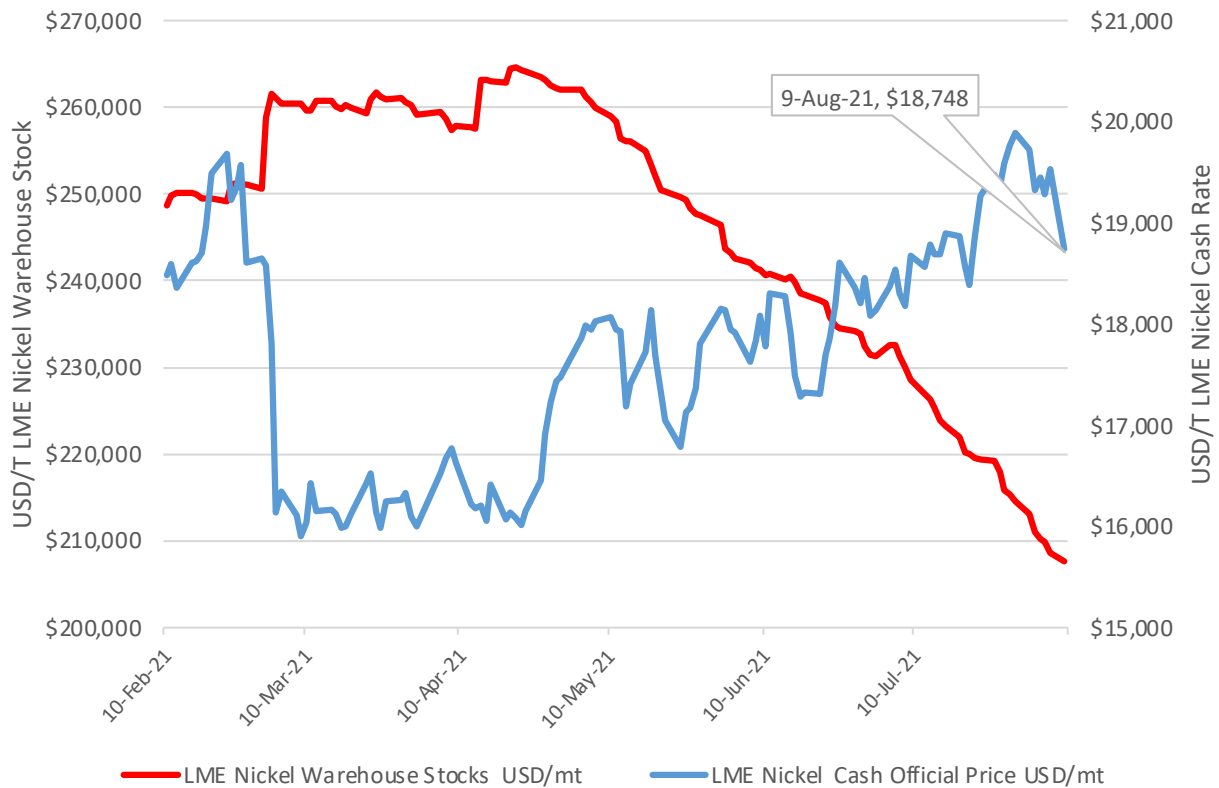
- The global economy is expected to grow ~ 6% in 2021, the fastest post-recession pace in 80 years, largely on strong rebounds from a few major economies - U.S (7%) and China (8.5%).<sup>1</sup>
- The stimulus packages brought in by various countries will ensure that demand for steel remains high -the U.S will embark on an 8-year USD 1.2 trillion infrastructure programme.<sup>2</sup>
- Global manufacturing continues to expand and will pick up further when supply shortages and bottlenecks free up and COVID restrictions ease.
- The automobile industry which consumes around 12% of world steel production (900 kg per vehicle) is yet to get to full capacity and meet the global surge in demand due to coil and semiconductor chip shortages.<sup>3</sup>
- Global construction is set to grow by 5.2% in 2021 with US\$1.1 trillion planned in project pipelines.<sup>4</sup>

- China consumes near 95% of the 50% of world steel volumes its manufacturers – 56% of which goes into its construction sector. With China aiming to achieve a 65% urbanisation rate by 2025, and a third of China's housing stock of 1980 construction and due for replacement a further large bulge in Chinese construction is still to result.<sup>5</sup>
- Shipping capacity and container shortages persist. Drewry's composite World Container index is 370% higher than a year ago at \$9,371.30 per 40ft container.<sup>6</sup>
- Oil and steel prices change similarly. When oil is cheap, so is shipping raw materials and finished product. Presently crude oil forecasts are exponential out to 2025.
- Steel making commodity prices continue to bounce at significantly elevated levels and look to do so into 2022.
- Russia, China and India are imposing and/or proposing combinations of export restrictions, export taxes and rebate reductions on steel products. While in the U.S. and Europe rampant market protection measures – are all fuelling market price escalation.
- Fears of currency debasement and inflation in the wake of widespread stimulus measures from governments around the world has propelled investors into the commodities sector.
- The World Steel Association has forecasted that steel demand will grow by 5.8% in 2021 and continue to grow into 2023, while crude steel output is forecast to grow by 4.6% in 2022.<sup>7</sup> The simple basics of supply and demand apply to steel prices. When there is a high steel demand and lower supply the price of steel is and will increase.
- China stated this week that it does plan to extend production curbs in north China ahead of the Beijing Winter Olympics in February 2022.<sup>8</sup>
- Several countries have now committed to ambitious emissions reductions targets over the next few decades. In April, the US announced a new target of a 50-52% reduction in greenhouse gas emissions (below 2005 levels) by 2030. This follows similar targets by other major steel producers such as the EU (55% reduction on 1990 levels by 2030), China (carbon neutral by 2060), and Japan (46% reduction on 2013 levels by 2030).<sup>9</sup> These decarbonization goals - while also meeting upcoming more stringent ESG (Environmental, Social and Governance) policies will require intensive 'green' fiscal stimulus to grow clean technologies, renewable energy facilities (e.g. wind turbines) and develop infrastructure for electric vehicles. These developments will have a two-fold effect, curbing steel output until production methods are amended to reduce emissions, while making steel and alloys more sort after and valuable commodities.

In summary, pressures remain for further upward movement in the domestic landed steel and stainless price curves well into 2022, albeit at a slower momentum and of a smaller magnitude.

## NICKEL

### LME Nickel Price & Warehouse Stocks



Source: Argus Media

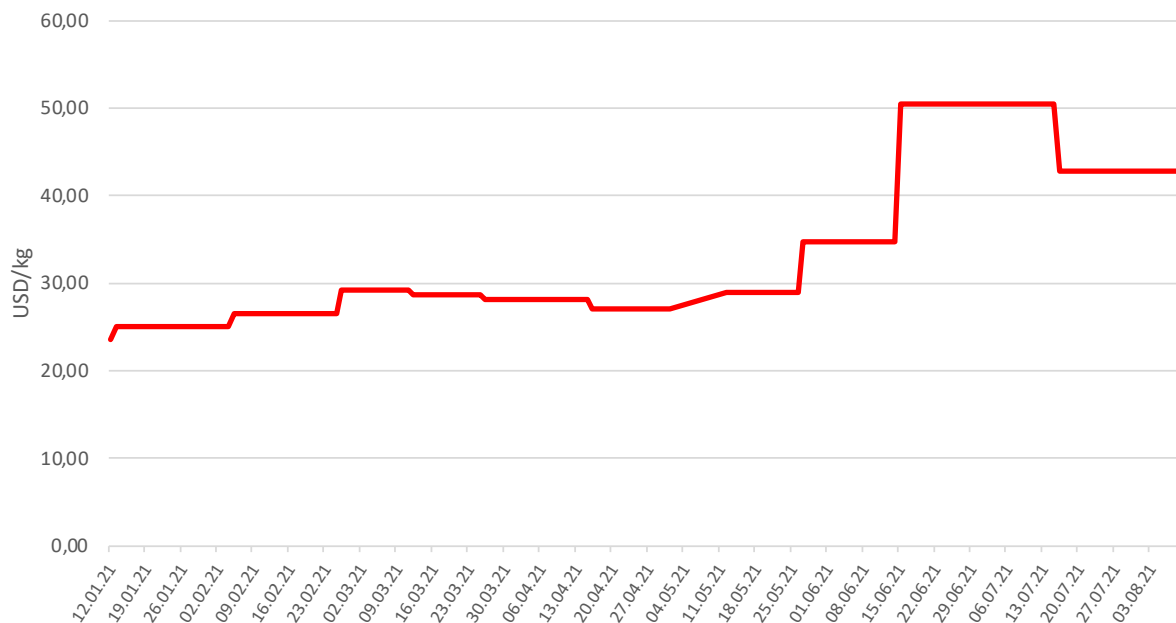
Nickel prices have gradually risen back to levels realised in March on the back of increased demand and falling availability. China and wider Asia account for 80% global Nickel demand, and their consumption has increased near 15% over the course of 2021.<sup>10</sup>

Nickel use by Indonesia was up nearly 80% reflecting the increased production of NPI (Nickel Pig Iron) stainless steel used as a cheaper alternative in the production of stainless. This trend far exceeds industry expectations of year on year growth of 30%.

At the same time, supply of Nickel has been severely constrained, despite Indonesia's mined and refined nickel output growing. Like many regions COVID-19 cases are on the rise in Indonesia, further lockdowns and a lack of workers is likely to cap NPI and nickel ore capacities. The ore export ban from Indonesia also continues to restrict nickel availability in China putting pressure on London Metal Exchange (LME) and SHFE (Shanghai Futures Exchange) warehouse stocks. Recent volatile weather is delaying ore shipments from Indonesia and the Philippines due to heightened concerns of bulk cargo liquefaction. All in all, there appears plenty to support the upward Nickel price trend.

## MOLYBDENUM

### Molybdenum CFD Price Index (USD/Kg)



Source: Argus Media

Molybdenum ("Moly") is mostly used to make grade 316 stainless and specialised carbon steel grades through its ability to improve yield strength, fatigue strength, shock, wear and heat resistance in steel without a corresponding loss in elongation.

Around 20% of all new molybdenum goes into stainless steel production, with another 60% going into high-grade long and flat-rolled steel, engineering steels, tool and high-speed steel, cast iron, and superalloys.

Since the beginning of 2021 the moly price has increased 82% due to a surge in demand from China, which usually accounts for 30% of global moly demand.

Traditionally the oil and gas sector has been a large driver for molybdenum due to its use of moly as a catalyst to remove sulphur from natural gas and in the refinement of its petroleum products. It is also contained in specialised steel used in equipment and infrastructure by the sector. With oil prices staging a steady recovery since November and forecasted to keep increasing, the potential is for fresh investment in oil projects and an associated rise in molybdenum consumption.

In more recent years infrastructure building globally has become the largest driver for consumption of moly through demand for improved elongation properties in steel. As such the significant investment announced by the developed economies in response to the COVID pandemic to replace infrastructure, will likely sustain the increasing moly price trend for an extended period.

In addition, there is renewed demand from the aerospace and automotive sectors where lighter, higher strength steel components are valued. Because moly can withstand extreme temperatures without softening, it also makes it ideal for military armour and aircraft components. Whilst it is difficult to determine the exact magnitude of demand from each of these sectors, there has been enough collective activity to put the moly market into a deficit position with stagnating mine supply and supply chains lagging in the face of increasing demand.

What are the resulting impacts of these stainless feedstock changes on finished product prices?

Nickel is used in a wide variety of applications. Though the battery sector will represent almost 60% of nickel demand by 2040 as EV demand grows circa 40% year-on-year, stainless steel production currently accounts for around two thirds of global nickel demand.

According to the Stainless Steel Forum, despite stainless mill production increasing over 2021, Stainless steel is currently in short supply worldwide. Very high demand, production bottlenecks and COVID related shipping delays have prioritised security of supply ahead of price concerns to send prices on a similar upward trajectory to that experienced with carbon steel finished products.

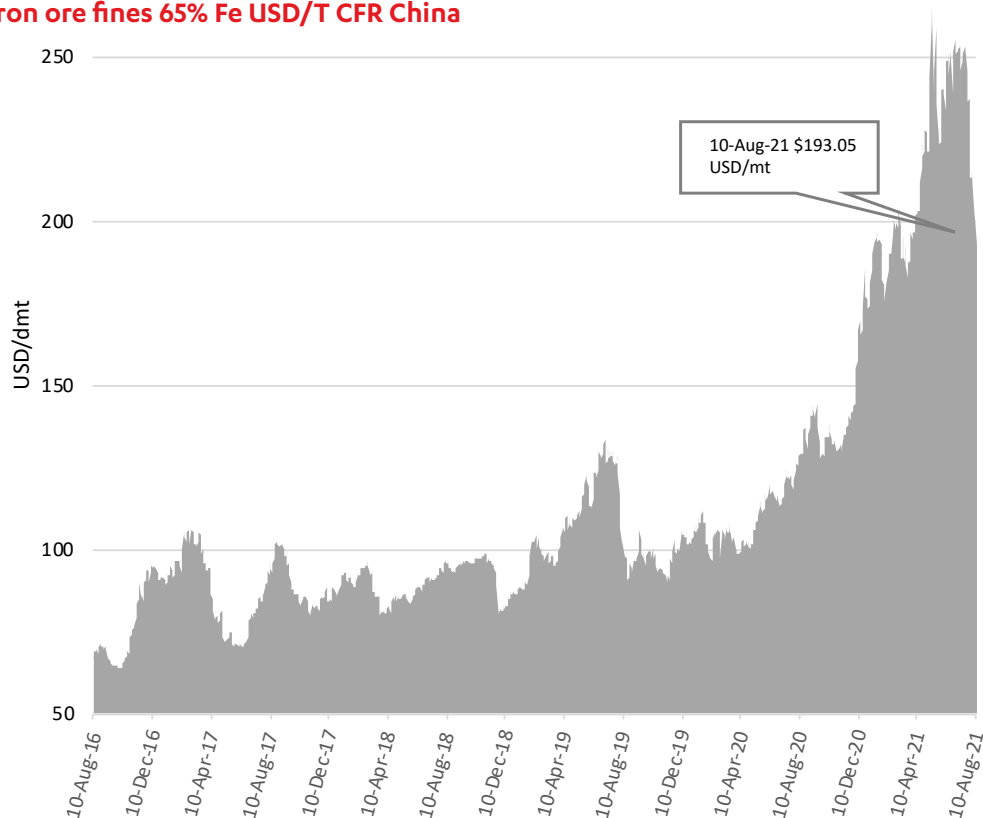
Of note in June was that stainless mill output declined on the month prior, a reduction was partly attributed to plants switching away from 200 and 400 series steel to 300 series. Some capacity in China had also switched over to manufacturing carbon steel coil due to the more profitable returns able to be made both domestically and in export markets.

Inevitably Stainless price increases look set to continue into 2022 as the increasingly tight supply market, stronger-than-expected raw material prices and escalating shipping costs out of key stainless hubs such as Taiwan and China continue to impact.

The likely imposition of an export tax on stainless and carbon steel products in China is almost certainly going to lift global pricing further.

## IRON ORE

### Iron ore fines 65% Fe USD/T CFR China



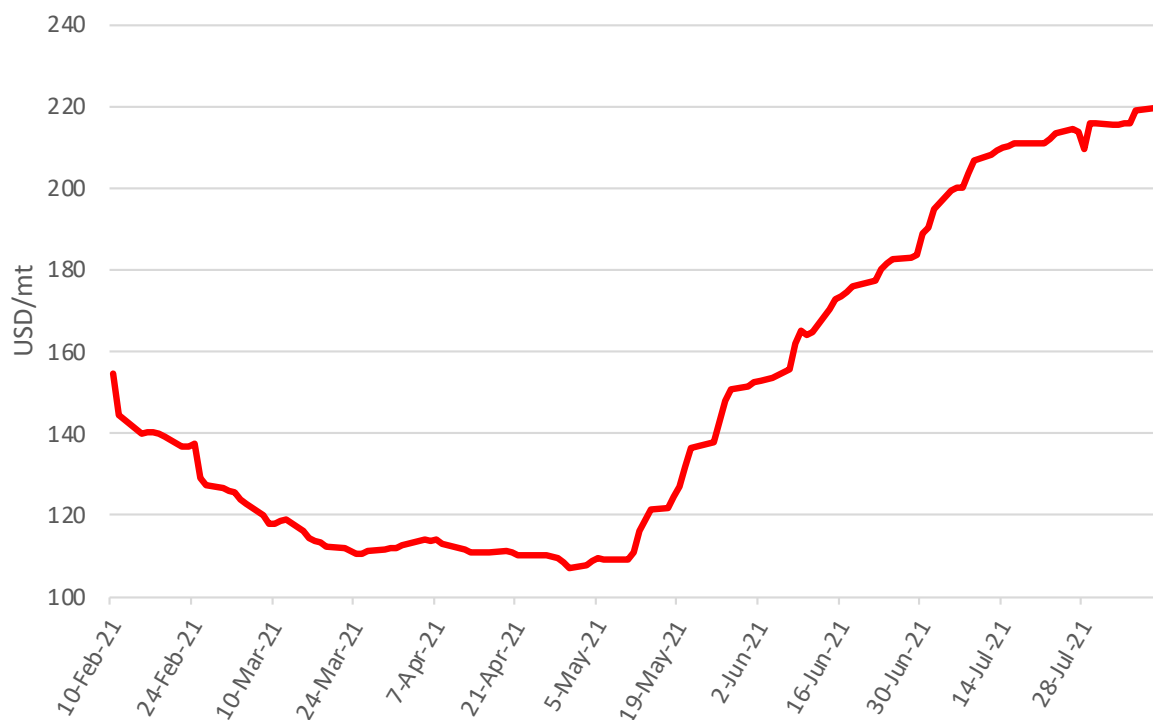
Iron ore prices have slipped back circa 25% over July from the lofty heights seen in May, moving its cumulative increase over 2021 down to a still impressive 86%.

China's demand for iron ore has abated due to their government's directive to lower steel production and growing concerns about the impact of its worst COVID-19 outbreak since early last year. In addition, inflationary pressures resulting from the surge in commodity prices which have pushed China's producer price index (PPI) up 9% in July, slowing their manufacturing and construction sectors.<sup>12</sup>

Prior to the surge in commodity prices over 2021, forecasts had ore prices averaging around US\$150 a tonne in 2021, before settling back to near US\$100 a tonne towards the end of 2022, due to slow growth in both supply and reducing demand of iron ore.<sup>13</sup> With Brazilian supply slowly recovering, Chinese steel production softening and the price adjustments seen in July, this appears likely.

## COKING COAL

### Premium Metallurgical Coking Coal FOB Australia USD/mt



Prices for top quality hard coking coal from Australia have almost doubled in less than three months despite the factors creating weaker demand for iron ore due to strong demand from Europe. Europe presently accounts for 18% of Australia's spot export volume across various grades due to China's import restrictions on Australian origin products.

This sharp upturn in coking coal prices that kicked off in May, is likely to continue well into the second half of the year as the global supply-demand balance continues to tighten, as a result of the lack of investment in new coal mines.

This development for coking coal has some of the metal market analysts asking not how long the uptrend for coking coal will last, but how high will prices go?

## STEEL INDEXES

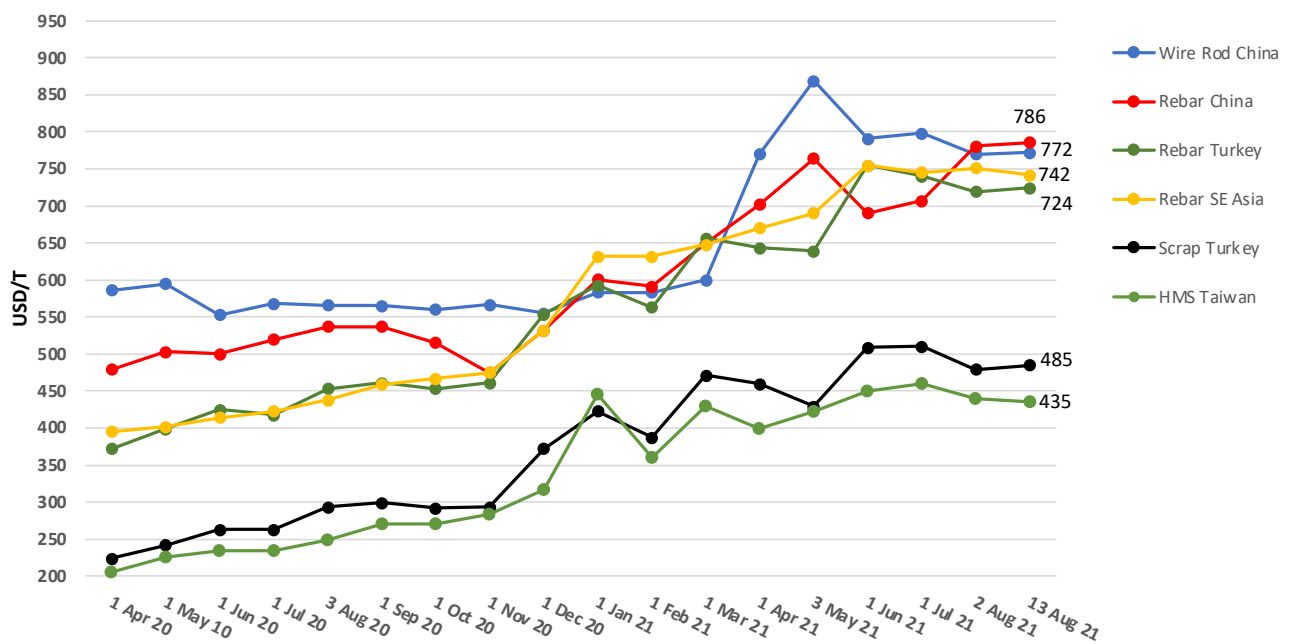
Global scrap and semi-finished steel prices appear to have settled in many regions. Chinese mills have reduced imports from their largest supply channel Japan, due to a gap in price to their domestic rates. Taiwanese and Turkish scrap rates have eased, assisted by improved availability of U.S scrap supplies and uncertainty about what impact the COVID Delta variant outbreaks will have on economic activity worldwide. Mills are holding off purchasing in the hope of a softening in scrap prices especially given the very high freight rates at present which show no sign of reducing.

Market commentary advises that rebar mills internationally have concerns they may not be able to pass on the extra cost through raising steel prices, particularly in China with the heightened state scrutiny on commodity price inflation.

The USD \$1 trillion infrastructure package passed last week by the US Senate is expected to have an impact globally, giving scrap, plate and long products like reinforcing bar (rebar) a price boost.

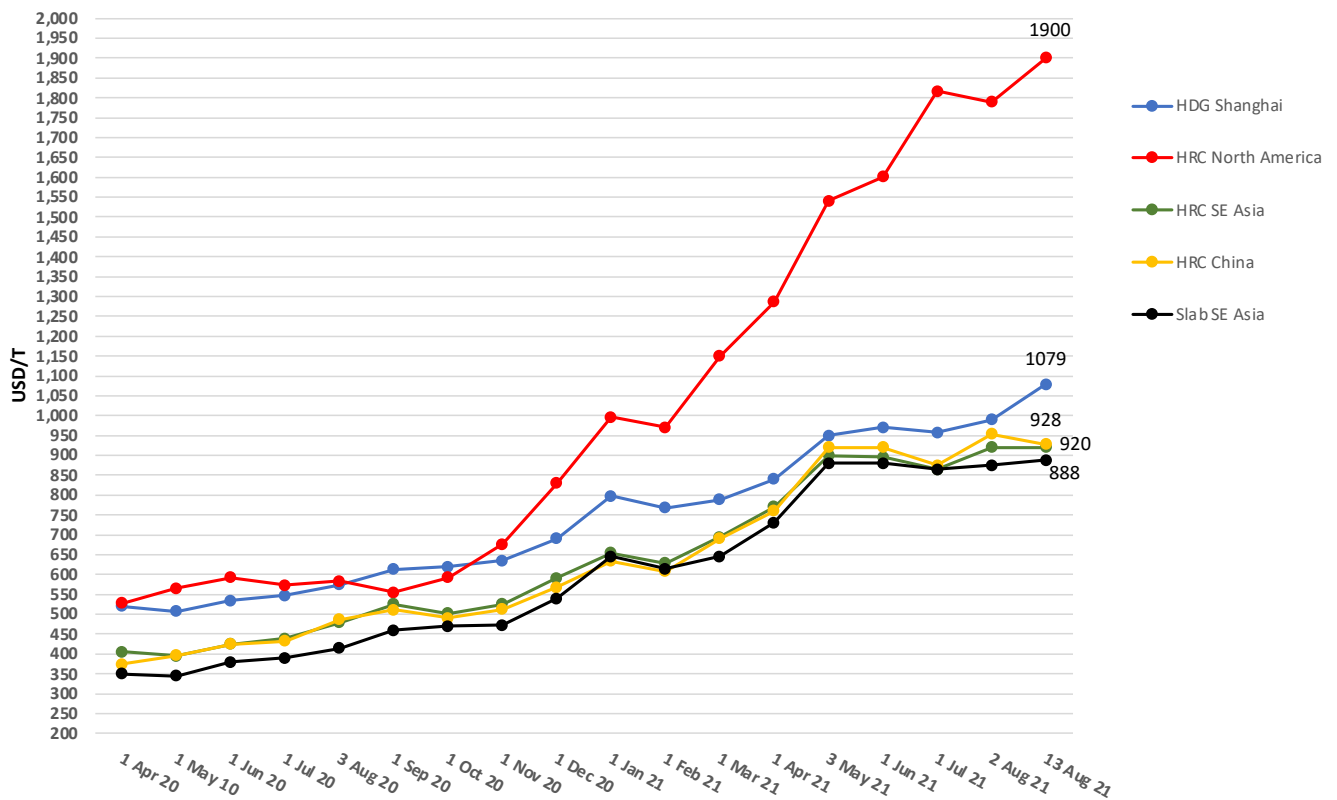
Meanwhile flat rolled product prices in Japan, U.S and Europe continue to climb to record levels as activity in their domestic manufacturing sectors escalates. A scenario supporting scrap prices in these domestic markets, aided by the growing movement towards Electric Arc Furnace (EAF) recycled "green" steel in key consumer markets.

## Long Products - Construction Steels



Source: ASN & Argus Media

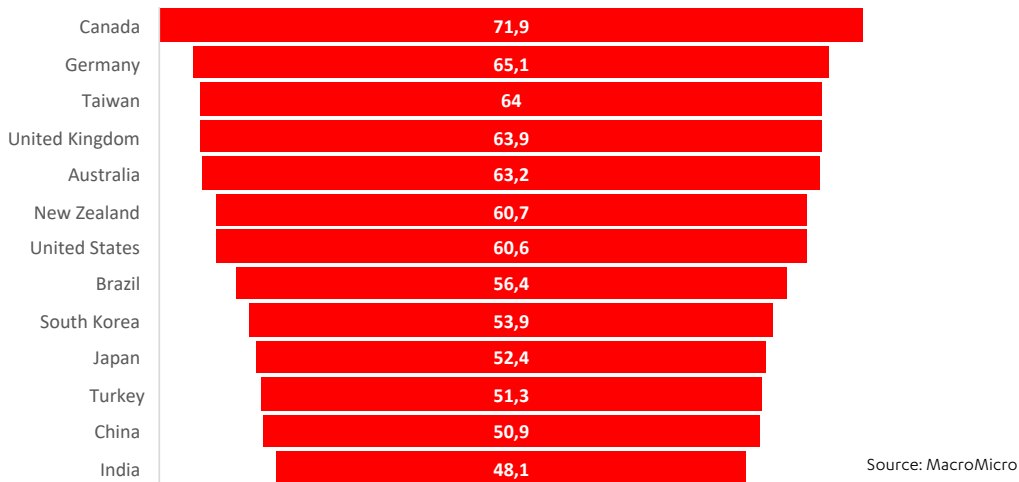
## Flat Products - Manufacturing Steels



Source: ASN & Argus Media

## MARKET INDEXES

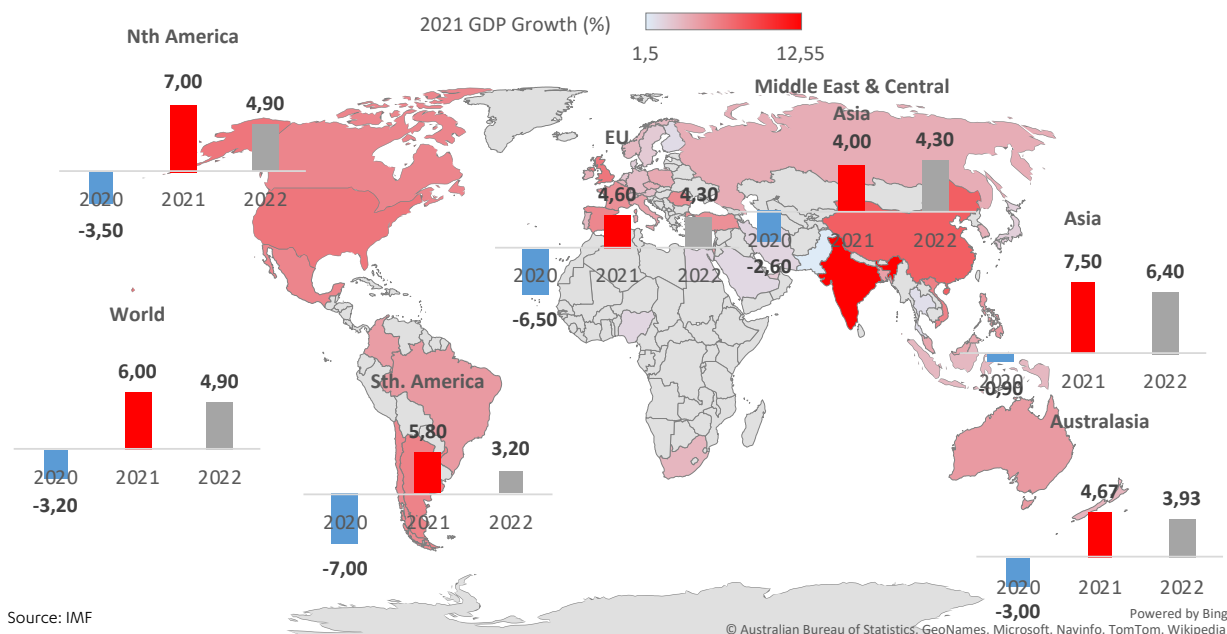
### World (PMI) Performance of Manufacturing Index: June-2021



A significant factor especially in respect to the record international Hot Rolled Coil prices, are the robust manufacturing PMI results seen from many of the developed economies over June. Activity reportedly supported by high ongoing demand for appliances, metal building products and vehicles. This is making the upward steel price trend we are seeing a global story.

As an example, imports of steel products are up by 19% into the U.S, according to US Department of Commerce data to meet increased demand from the manufacturing sector. This additional volume has been unable to reverse the tide of price increases with HRC reaching \$1,900 USD/T late last week, more than four times the price recorded a year ago.

### World GDP Heat Map & Forecast

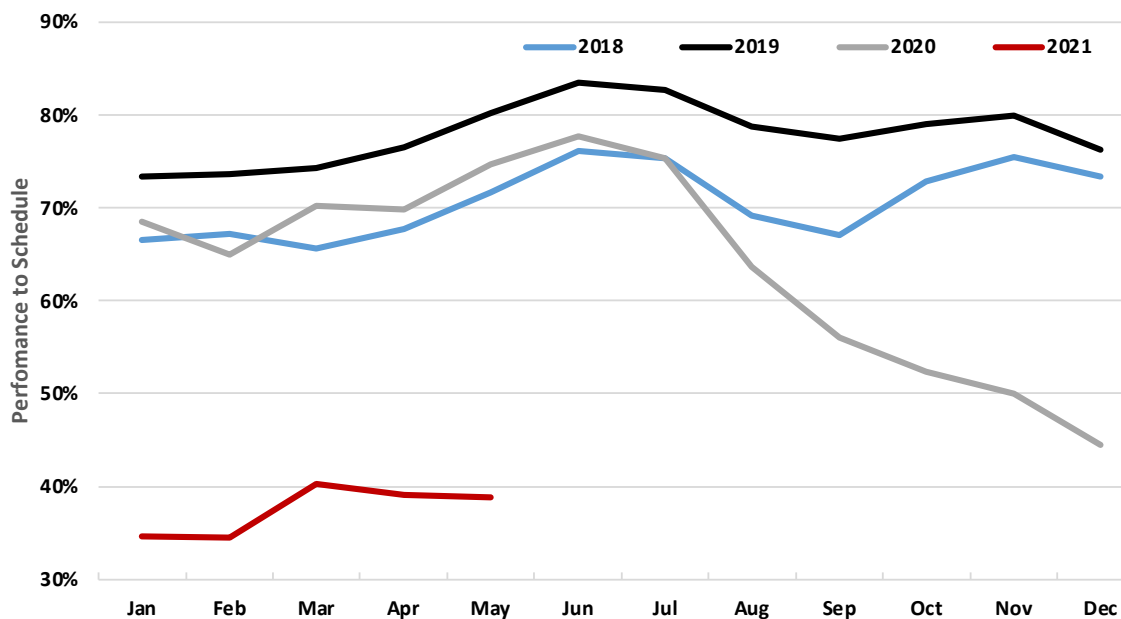


Fueling the demand and prices currently for commodities and finished metal products is the frantic economic activity taking place across the globe with the rebound of economic activity coming out of the pandemic and the eventual easing of protocols put in place. As the above graphic displays, the IMF are expecting a heightened pace of GDP growth in many regions over 2021 and 2022. Obviously the evolving issue and impact of the spread of the Delta COVID variant is the unknown at this present time and will not have been fully factored into forecasts, but either way if anything it will only likely prolong the current price cycle and environment we are presently in.

## SHIPPING

The global shipping situation is by no means improving and could be describe by some as in dire straits. Port congestion caused by increased volumes through ports, lower port throughput and a lack of container availability continues to be an issue globally. In addition, the containership industry has faced a few anomalies this year, including the Suez blockage and the Yantian port closure. As a result, Vessel schedule reliability continues to be impacted, doubling shipment lead-times, necessitating vessels to skip port calls and scheduled rotations.

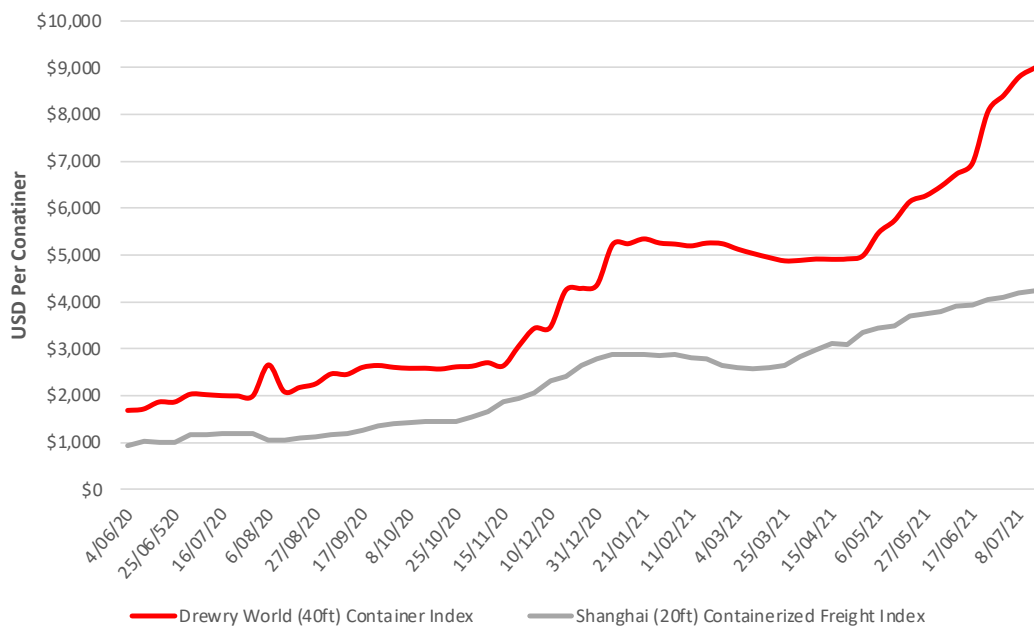
### Vessel Global Schedule Reliability



Source: Sea-Intelligence, GLP report issue 118

Port congestion and rates traditionally increase as we head towards the holiday season. Unfortunately, both are set to increase with renewed pandemic related restrictions impacting operations and carriers adding new service fees and surcharges that can more than double already historical high contract base rates sending shipping indexes on an exponential curve – while all manner of businesses scramble for containers and space on vessels.

## Drewry World (40ft) & Shanghai Containerized (20ft) Freight Indexes



Source: Drewry & Macromicro

Whilst the above rates look high, it is understood that 40ft container base rates with premium surcharges for late-August shipments from China to the U.S have been quoted in the USD \$23,000-\$25,000/FEU range.<sup>14</sup> This development is a particular concern and potential issue for Southward trade-lanes from Asia as it could incentivise shipping lines to divert capacity to the China-to-North America routes further exacerbating shipping delays or escalating costs in our part of the world. It's a wait and see situation, but there is expected to be little respite in respect to rates and extended product lead-times for quite some time yet.

## WHAT DOES THIS MEAN FOR STEEL & TUBE AND OUR CUSTOMERS?

Every product market is different, subject to its own unique market dynamics.

Though we have seen some settling and softening in some of the carbon steel feedstock commodities, it will remain to be seen how much of that will transpire into a reduction of finished steel product prices due to the overall imbalance of demand to available supply, as well as the associated costs to get product through our extended supply chain to New Zealand.

Stainless steel finished product pricing is presently trending on a similar price curve to carbon steel products experienced since late last year – so more is to come.

Overall, whether it is the commodity markets, mill capacities, finished product inventories, shipping container availability or space at port or on vessels – the situation is tight. Coupled that with the complexities of the COVID Delta variant creating more pressure on supply chains, there remains a lag in domestic market prices to what cumulatively has been passed through by our supply partners.

What we do know, is we are certainly living in interesting times, and with that comes volatility in commodity prices. The variation to past price cycles is the huge increase in supply chain costs and the significantly extended product lead-times. It is the combination of these factors which is expected to extend the escalating price cycle through 2022, albeit at a lower and slower magnitude.

**Prepared for Steel & Tube by Brendan Smith, National Manager, Carbon Steel & Stainless**

## Sources Notes:

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3. World Steel Association – ‘Steel in Automotive’ – August 2021
4. GlobalData - ‘Global Construction Outlook to 2025, Q1 2021 Update’ – April 2021
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6. Drewry’s composite World Container index – August 5, 2021
7. Statista – ‘Projected global output of crude steel 2022’ – August 2021
8. Argus Media – ‘Asia-Pacific steel: Production curbs support’ – August 10, 2021
9. Australian ‘Department of Industry, Science, Energy and Resources ‘Resources and Energy Quarterly’ - June 2021
10. World Bureau of Metal Statistics – ‘Nickel Production on the Rise’ – August 13, 2021.
11. Metal Miner – ‘Stainless demand drives nickel prices’ – July 26, 2021
12. Australian Financial Review – ‘Chinese iron ore demand slips as steel curbs bite’ – August 10, 2021.
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14. S&P Global Platts – ‘Container Premiums: Ningbo port issues create risk for even higher surcharges’ – August 13, 2021



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