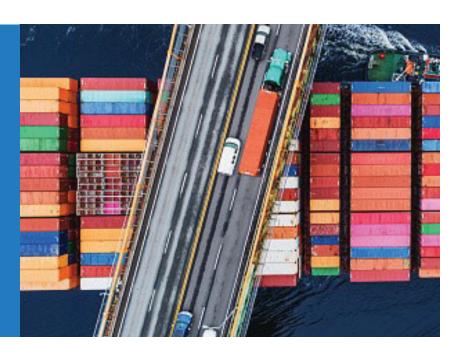
Paper Planes: Global Paper Pricing Impacts

October 2021

Global paper prices have continued to increase in recent months aligning with many post-COVID factors and cost of production, shortage of supply, freight energy and more. Energy, and in particular Gas prices, is emerging as a significant factor impacting pricing of imported product into Australia and New Zealand. Together with the global supply chain continuing to increase in cost and decrease in reliability, we are in the perfect storm.

This update explains some of the underlying drivers impacting pricing and to assist the messaging through the supply chain.

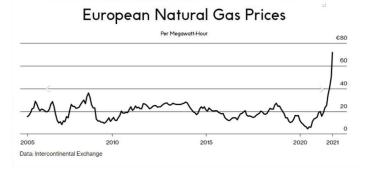


NATURAL GAS PRICES SOAR TO NEW HEIGHTS

Europe's energy crisis is affecting all manufacturers and the exponential increase in costs is being passed down the supply chain to the rest of the world. Millions of people around the globe will feel the impact of soaring natural gas prices this European winter.

According to Bloomberg; Nations are more reliant than ever on natural gas to heat homes and power industries amid efforts to quit coal and increase the use of cleaner energy sources. But there isn't enough gas to fuel the post-pandemic recovery and refill depleted stocks before the cold months. Countries are trying to outbid one another for supplies as exporters such as Russia move to keep more natural gas home. The crunch will get a lot worse when temperatures drop.

The crisis in Europe presages trouble for the rest of the planet as the continent's energy shortage has governments warning of blackouts and factories being forced to shut.



Inventories at European storage facilities are at historically low levels for this time of year. Pipeline flows from Russia and Norway have been limited. That's worrying as calmer weather has reduced output from wind turbines while Europe's aging nuclear plants are being phased out or are more prone to outages—making gas even more necessary. European gas prices surged by almost 500% in the past year and are trading near record.

Additionally, a report by Stephen Bartholomeusz from the Sydney Morning Herald says;

Oil and natural gas prices are their highest since 2014 and energy coal prices are at record levels as the UK, Europe and China experience dire energy shortages and scramble to secure supplies of gas and coal to keep the lights and heating on and factories operating.

Put an increasingly global energy crisis together with the severe supply chain disruption (in the lead up to Christmas, the peak period for demand) and alreadyelevated inflation rates and the prospect that the recovery from the pandemic will be choked off, the fear that inflation will become entrenched and force interest

INTERNATIONAL SHIPPING

Over the past six (6) months, international shipping costs have increased exponentially from all regions. These increases impact all imported product from around the world arriving into Australia. Prices stabilised for a short period between February and May however we have seen another spike over the past 4 to 6 weeks. It is the view of all of the freight forwarders that prices will remain high well into 2022.

World Container Index

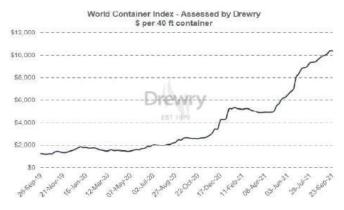


Diagram 2: World Container Index

The factors driving this include:

- Massive upswing in global volumes following the huge COVID related downturn from March to May, 2020.
- > Oil, and therefore Bunker Fuel prices rebounding and up by 25-30% by year end over COVID slump levels hit in Q1, 2020
- Massive global container equipment imbalances and main port congestion adding to difficulty matching supply with demand.
- > Increases to local landing charges.

HASN'T THE EXCHANGE RATE (AUD VS USD) MITIGATED SOME OF THESE INCREASES?

Up until recently yes, however since the middle of June the AUD vs USD has declined by approx. 4% (\$0.77 to \$.0735). Given ocean freight and pulp is traded in USD\$ this is further compounding the issue.

Currency Chart



Diagram 3: Currency Chart

PULP PRICING

Since January pulp pricing has increased by approx. 35% as a result of:

- > High demand for fibre-based packaging due to the pandemic.
- > Strong demand from the building and textile industries as economies rebound from COVID.
- > Shift from plastic to fibre-based packaging due to environmental concerns.
- > Increases in ocean freight to transport from pulp mill to paper mill.
- > Unsustainable low historic pricing from all pulp manufacturers globally.
- > The consolidation of major pulp producers controlling supply and demand.

Although a slight improvement in global pulp prices, Pulp production is one of the most energy intensive industries. Recent energy increases continue to increase overall costs.

HARDWOOD PULP TREND - SOUTHERN HEMISPHERE

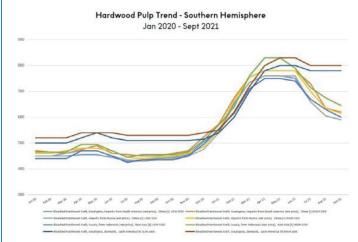


Diagram 4: Hardwood Pulp Trend - Southern Hemisphere

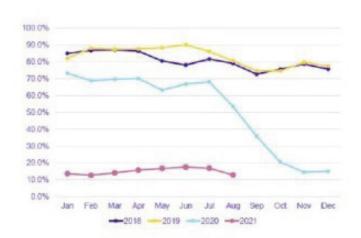
Along with this, schedule reliability is at its worst ever level as seen in the graph below. This is due to a number of reasons including trans-shipment, port congestion and blank sailings (cancellations or skipping of schedule port stops).

Note: Schedule reliability is the measure of a shipping lines ability to deliver within specified dates (DIFOT).

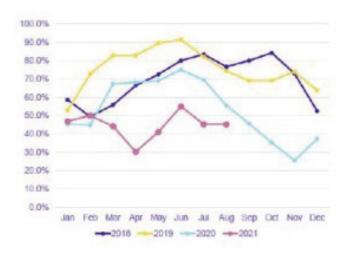


OCEAN SCHEDULE RELIABILITY

Asia to Oceania



Europe to Oceania



IN CONCLUSION

Seven factors driving prices higher:

- Significant increases in pulp pricing over the past 6 months.
- 2. Supply chain and logistics disruptions arising from the pandemic.
- 3. Massive spike in freight costs, especially to the ANZ region.
- 4. Capacity reduction by Paper mills globally rebalancing supply and demand.
- Solid global demand as economies rebound from COVID.
- 6. Recent decline in the Australian dollar against the USD.
- 7. Soaring Natural Gas prices in Europe that effect global manufacturers with increased costs.

Sources:

Australasian Paper Industry Association, 2020-21. Ball & Doggett, 2021. Intercontinental Exchange, 2021. RISI, 2021. The Real Media Collective, 2021. +61 3 9421 2206 hello@thermc.com.au

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