



HAWKINS WRIGHT

Outlook for market pulp AIAC & BWPA seminar, Milan

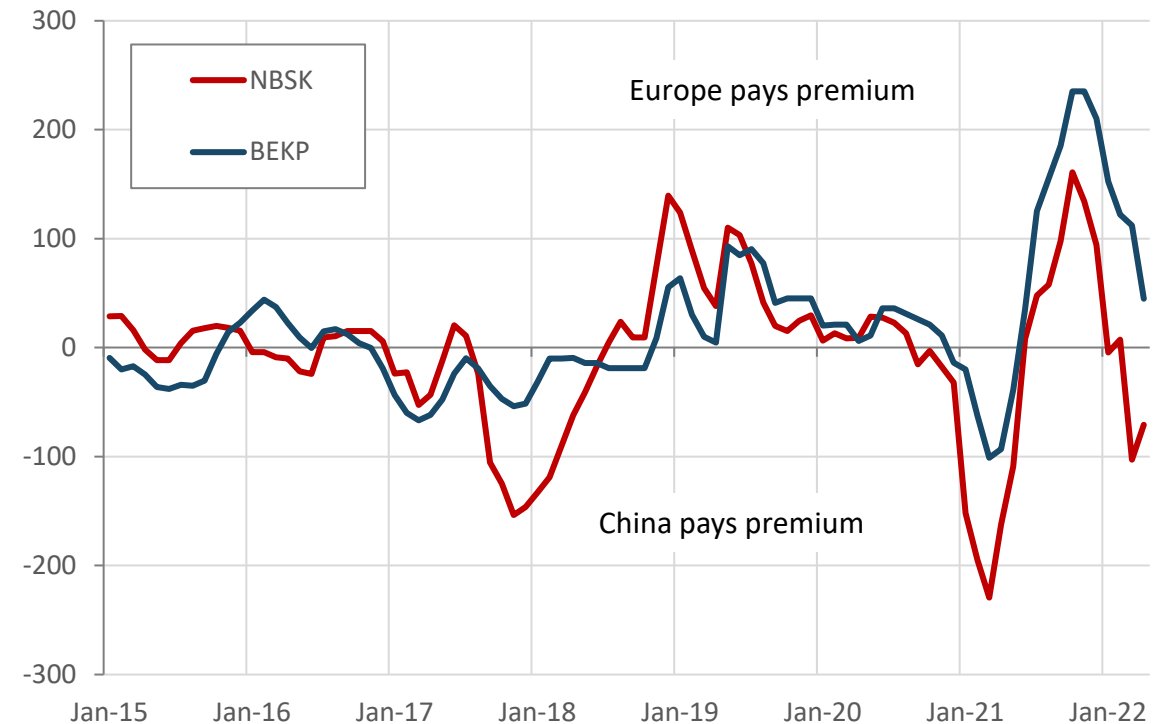
May 2022

Pulp market analysis has become increasingly challenging!



- China is (by far) the largest market; timely and accurate data still lacking, whilst Shanghai Futures Exchange adds new dimension to pricing
- Swing pulp lines, Swing paper lines
- Unplanned downtimes, black swans, and now an unprecedented supply chain crisis....
- Differentials are fluctuating wildly....traditional indicators need fresh interpretation

Net pulp price differentials: Europe vs. China

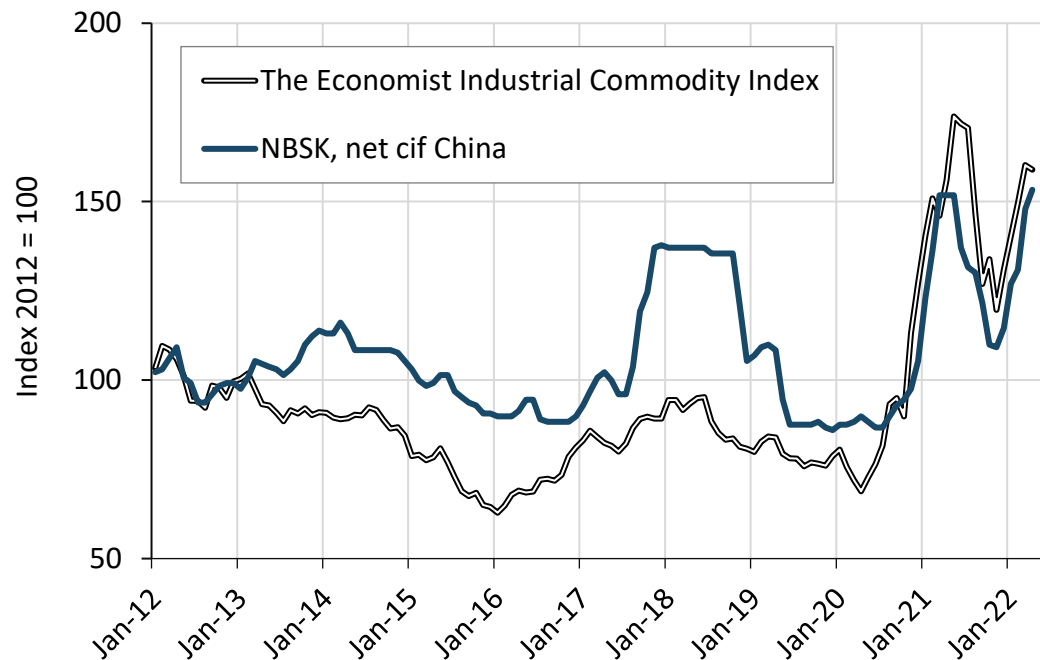


Although in some ways it has never been easier...



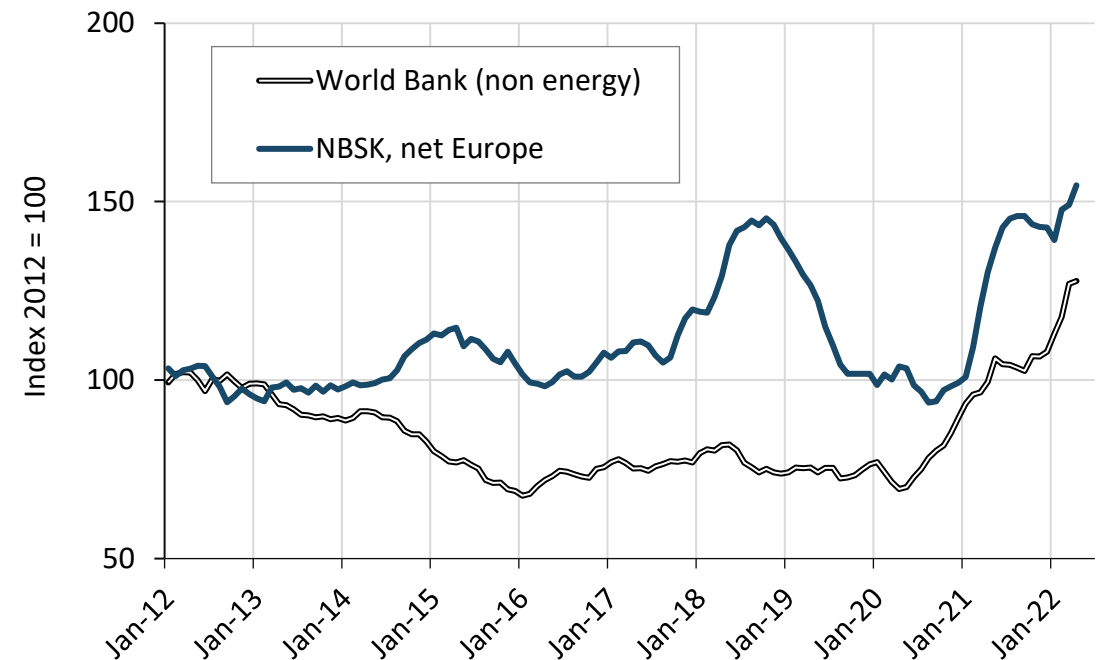
Most issues impacting our industry are macro in nature, affecting other sectors in a similar way

Economist Industrial commodity index & NBSK (cif China US\$)



Source: Economist magazine, Hawkins Wright

World Bank non-energy commodity index & NBSK (cif Europe net euro)

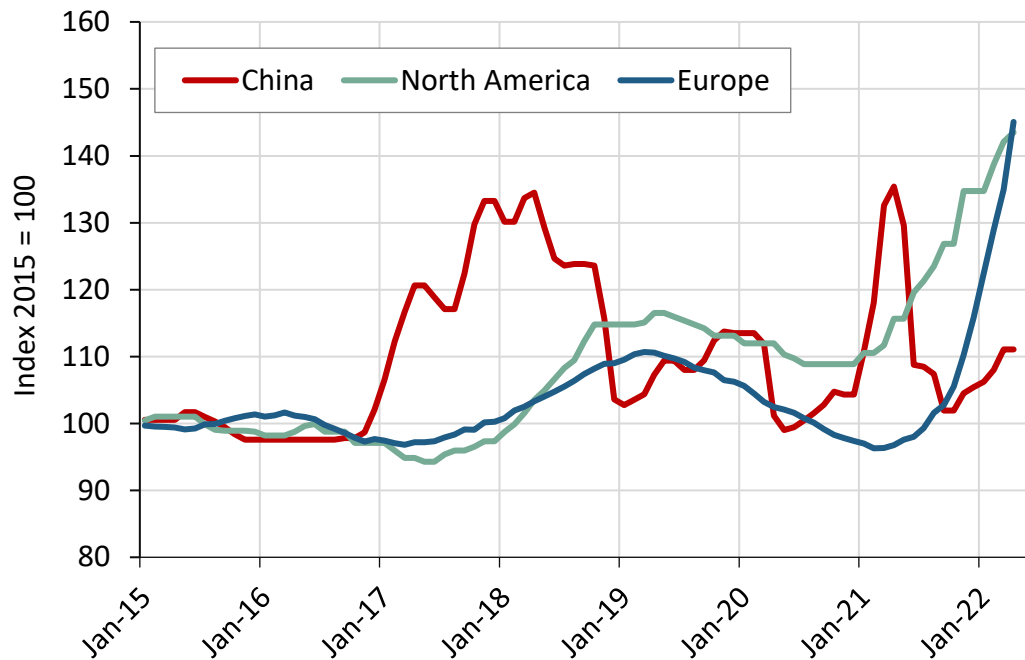


Source: World Bank, Hawkins Wright

China's paper market de-coupled from the West



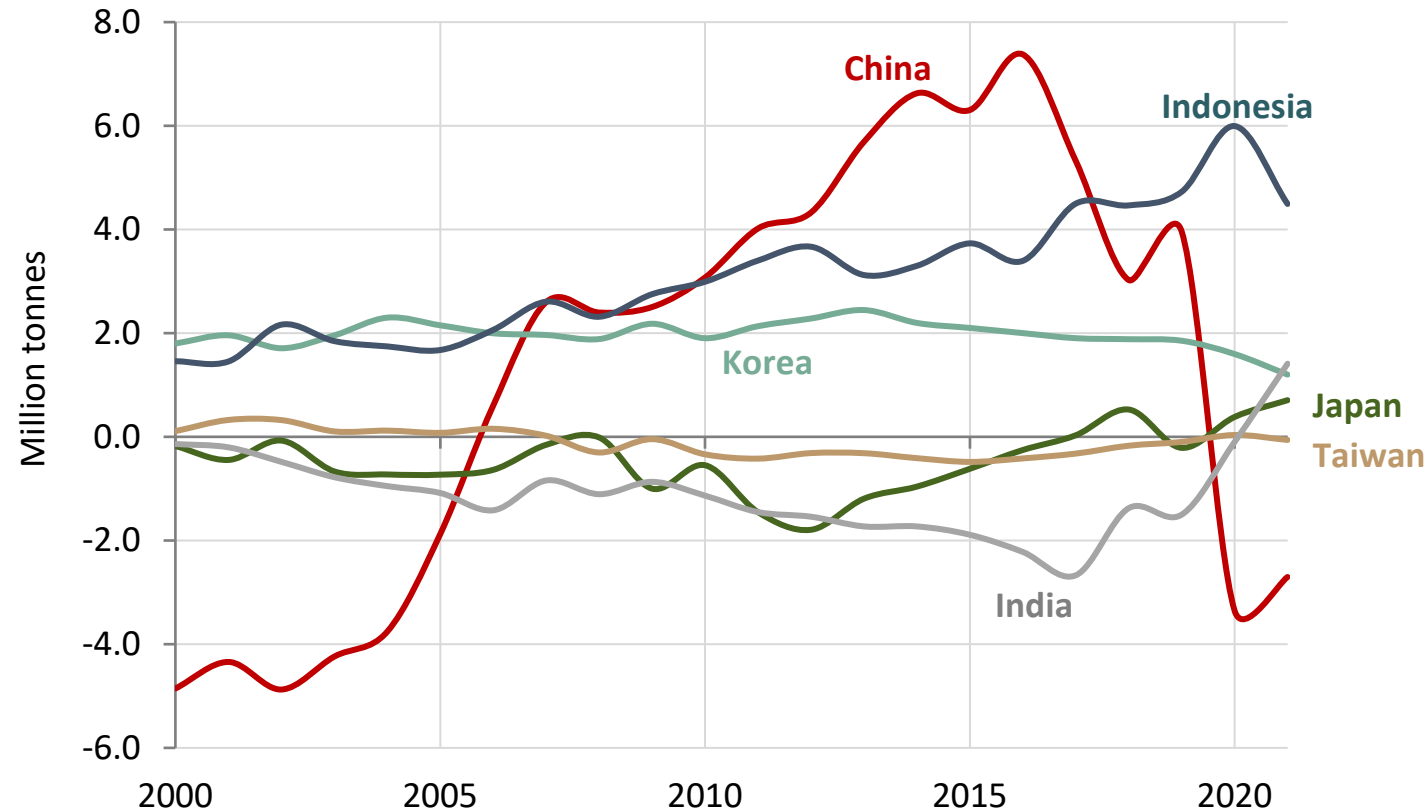
Regional woodfree paper price trends



- Inflationary forces rising in Europe from mid-2021.
 - EU GDP recovered by 5-7% in 2021...but labour markets and supply chains could not meet post-covid demand
 - P&W capacity cuts combine with a fall in Chinese net exports of P&W (-2.5 million tonnes since 2016)....and USA has cut capacity even more than Europe
 - UPM strike Jan - Apr
 - Russian invasion has fuelled the fire

China was quick to contain the pandemic and benefitted from another major stimulus and export boom. But the economy is now struggling with over-investment & high debt, and a zero-tolerance covid policy.

Net exports of P&B (HS code 48)



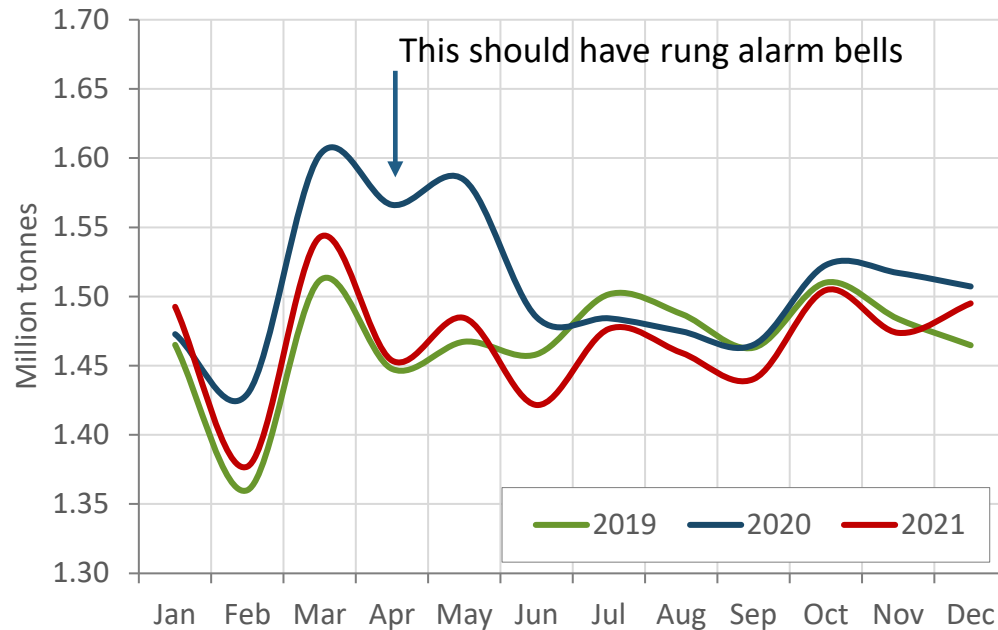
Source: GTT.com

- Despite continued investment in P&B capacity, Chinese competitive position has deteriorated relative to India, Japan, Vietnam, and the West
- Fibre shortages, energy rationing, logistics bottlenecks, structural changes in the labour market
- And yet, investment continues to accelerate

The twin engines of market pulp demand (tissue and China) are misfiring...

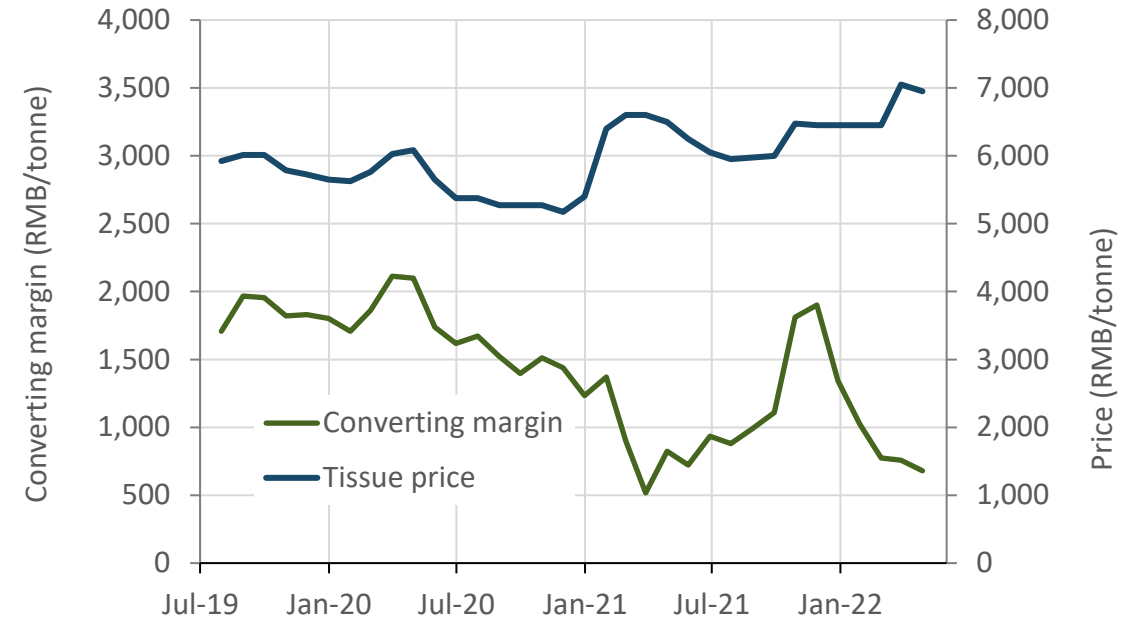


Tissue production (ex-China)



Source: CEPI, AF&PA, JPA, KPMA, IBA

China; tissue price and converting margin



Source: Imore, Hawkins Wright

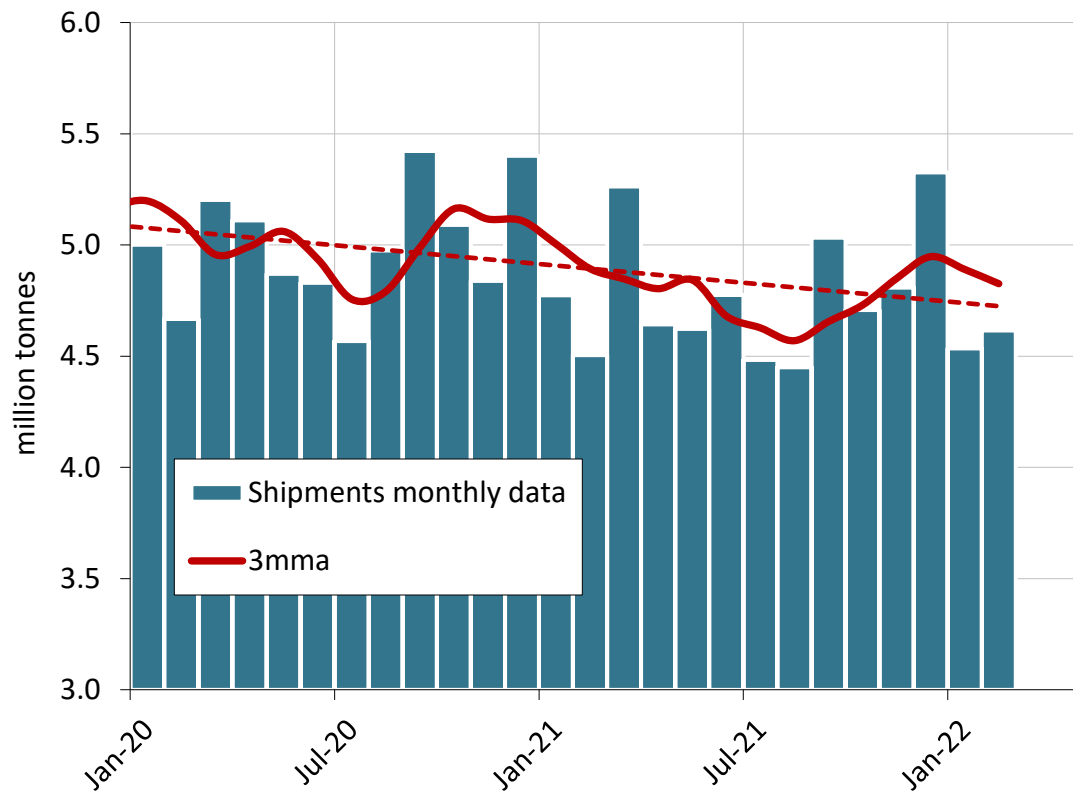
In addition to inventory cycle, tissue export volumes suffered from rising freight costs in 2021, and output now suppressed by cost inflation

Market pulp shipments trending down for >2 years



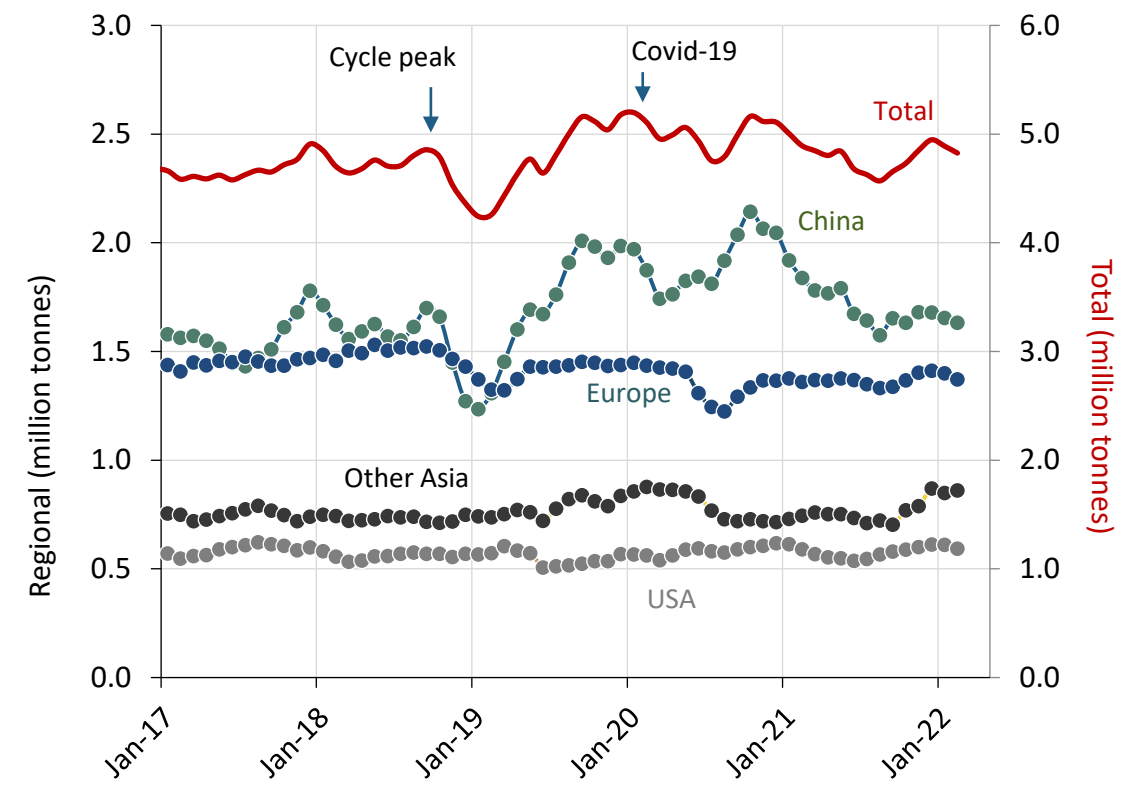
But how much of the decline is related to China's slow-down and contractions in tissue production (inventory cycle), and how much is simply a function of freight shortages and delays?

Global Pulp Shipments



Source: Pulpwatch, trade associations

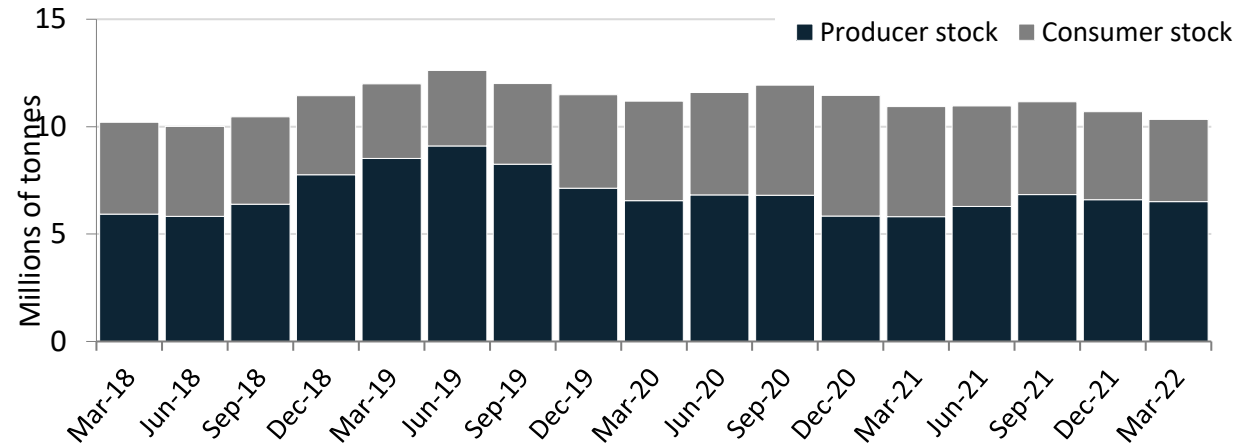
Global Pulp Shipments, by region





Pulp market due a major re-stock...but when?

Producer v consumer pulp stocks

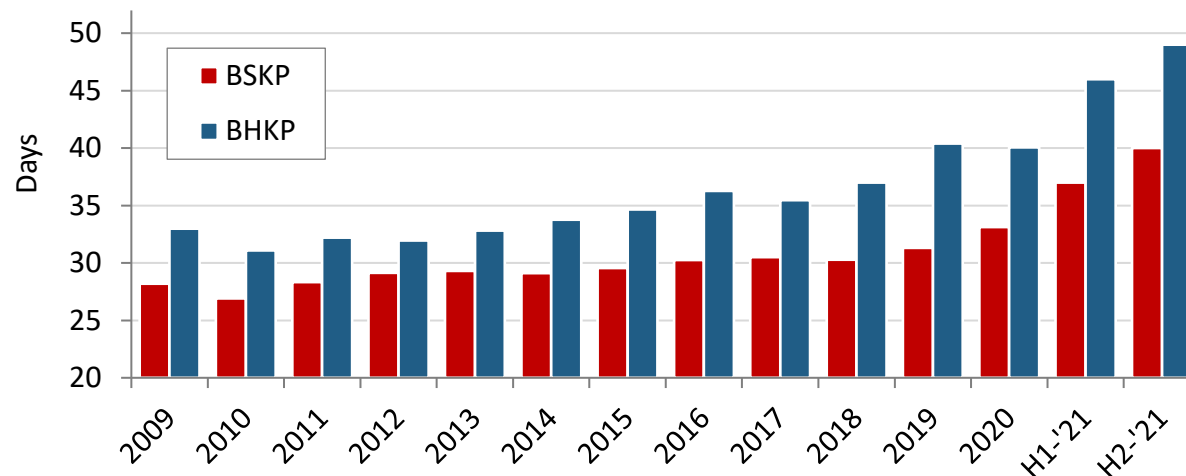


Consumer stocks have fallen by 1.8Mt since Q4 2020. Now at lowest levels since Q4 2018 (during which time underlying demand has increased).

Some paper mills forced to slow down or stop due to lack of raw material

Pulp delivery lead times

Source: Hawkins Wright estimates



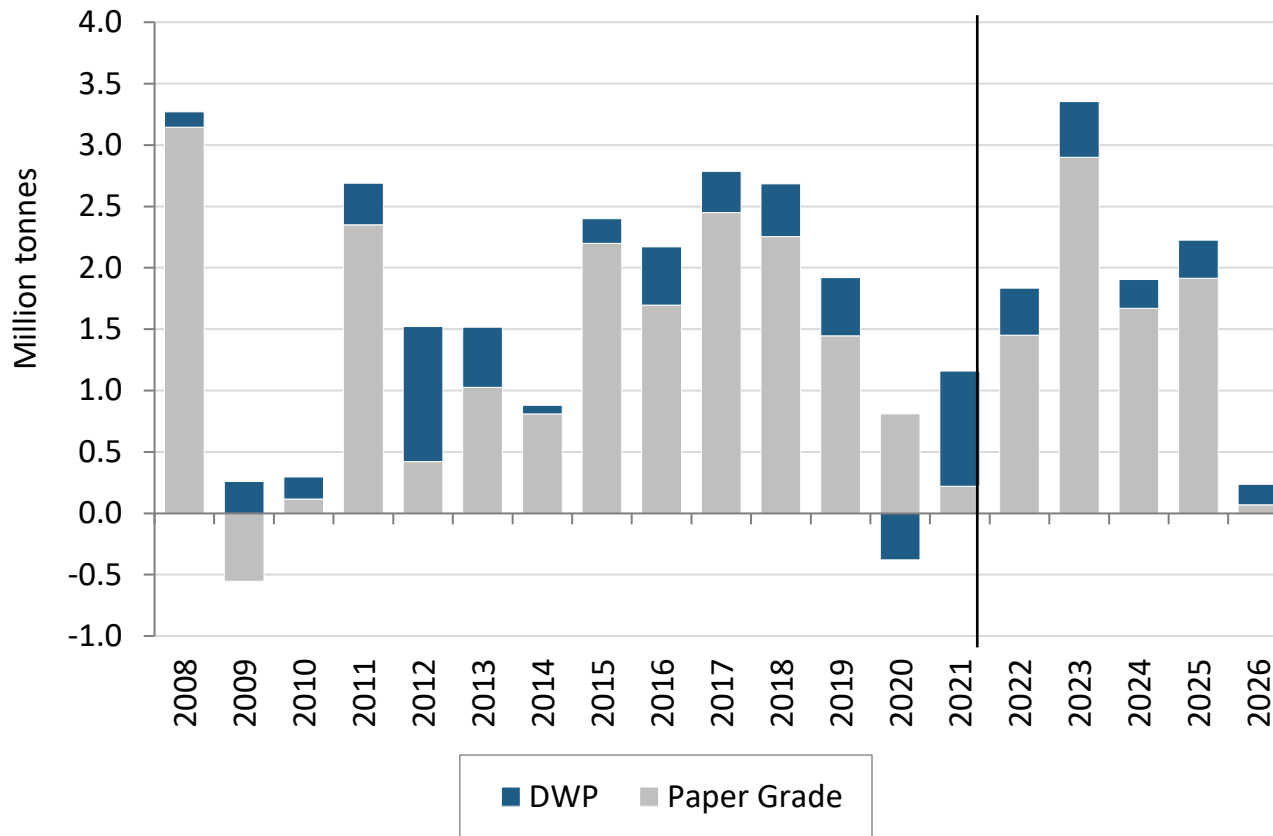
Supply further disrupted during Q1 2022:

- Heavy maintenance in LATAM
- UPM strike
- Ukraine war

The correction will come, but already the looming surplus looks more digestible than six months ago



Total chemical pulp capacity growth, 2021-2026: +9.6Mt (DWP +1.6Mt, PG +8.0Mt)



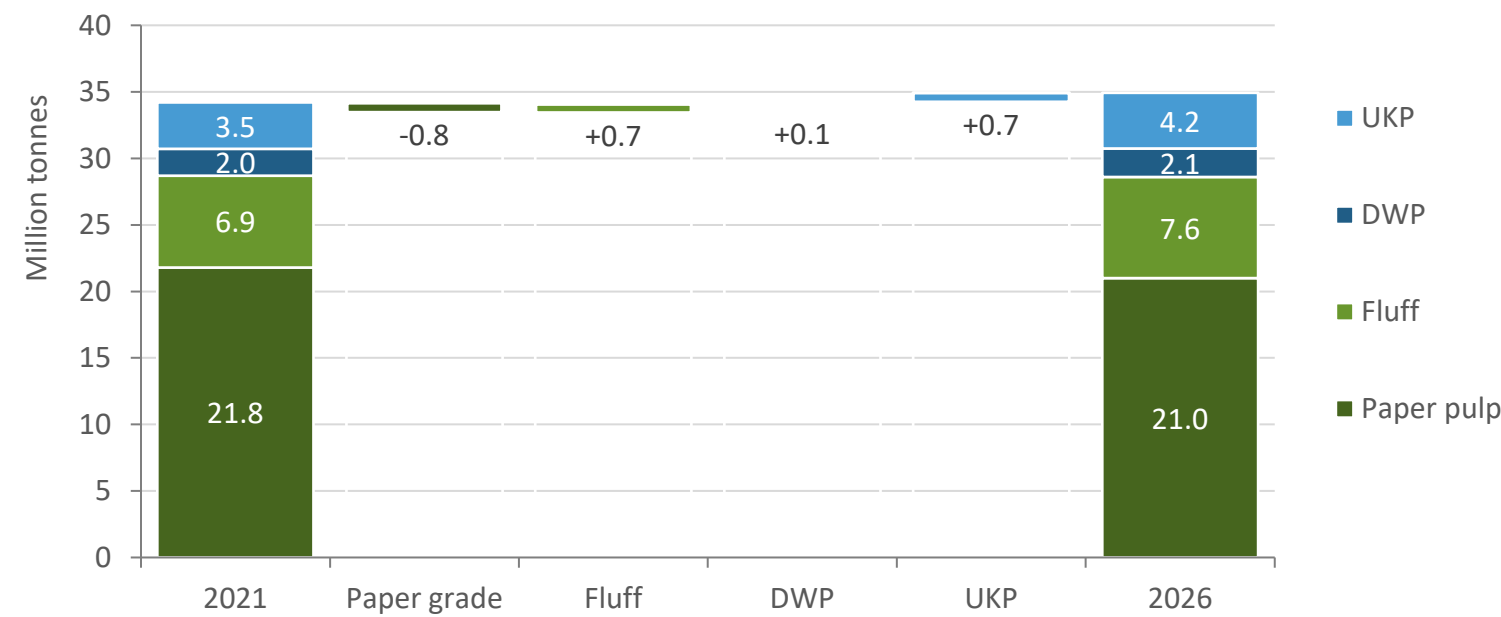
Source: Hawkins Wright estimates based on confirmed plans

- Project delays
- Mill closures (Resolute, West Fraser, West Rock...)
- Fibre shortages:
 - Russian birch (impact not yet fully factored in to our projections)
 - Asian chips (Vietnam appears close to sustainable maximum export volume)



And BSKP is structurally under-supplied

Market pulp furnished with softwood, by grade, 2021 vs. 2026



Source: Hawkins Wright Outlook for market pulp, April 2022

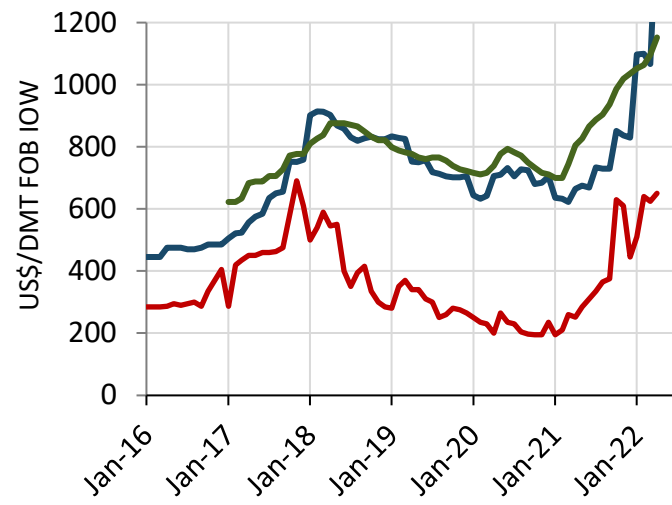
Paper grade BSKP capacity growth from Kemi and other debottlenecks will be offset by conversions to UKP & fluff



Cost inflation

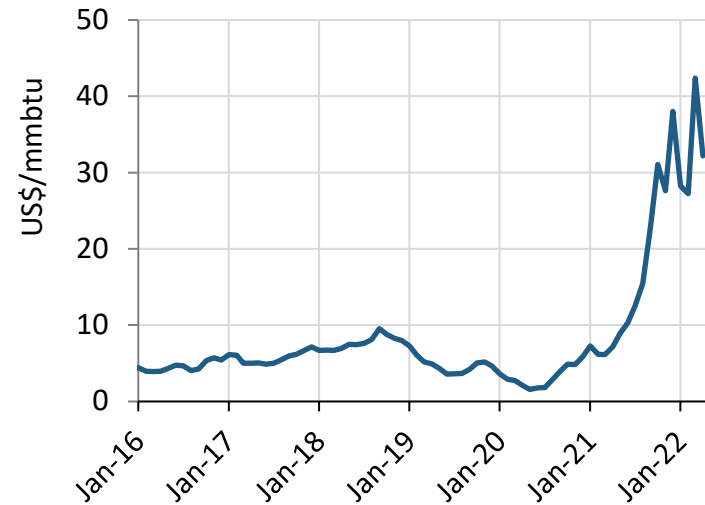
- Pulp and fine paper prices are at historical highs and still rising...Russian conflict is fuelling the fire, but these trends started over 12 months ago
- Some inflation is temporary, but much is structural (carbon, climate change, labour market, aging asset base, China, Russia...globalisation in pauses or reverse)
- Mills are closing even as pulp prices hit historical highs

Caustic



Source: IHS Markit

Gas



Source: tradingeconomics.com

Logistics – bulk rates

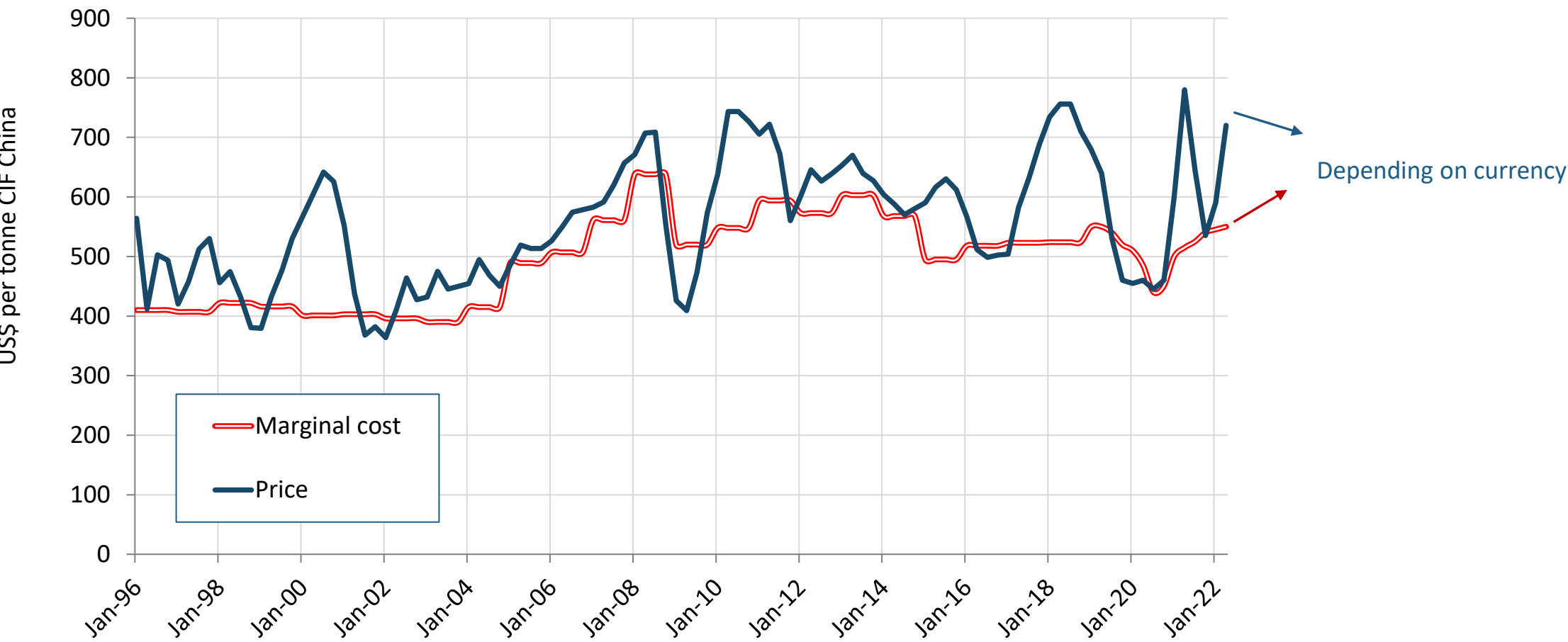


Source: Drewry

BHKP marginal cost of production vs. BHKP price



nominal (average by quarter)



Source: Hawkins Wright Outlook for market pulp, April 2022

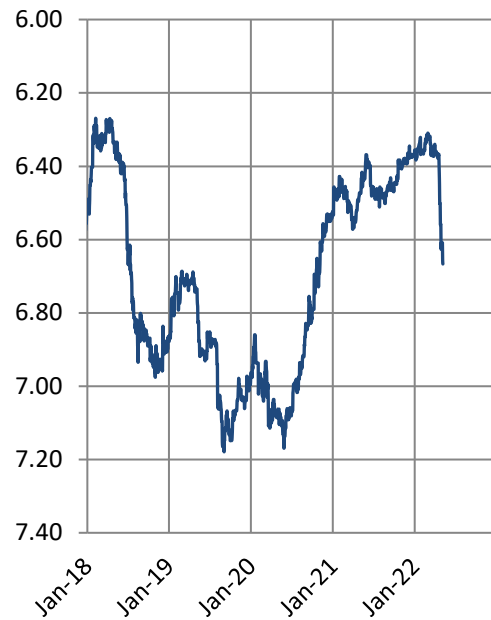


As ever, much will depend on price...

Beware the strengthening US dollar!

China

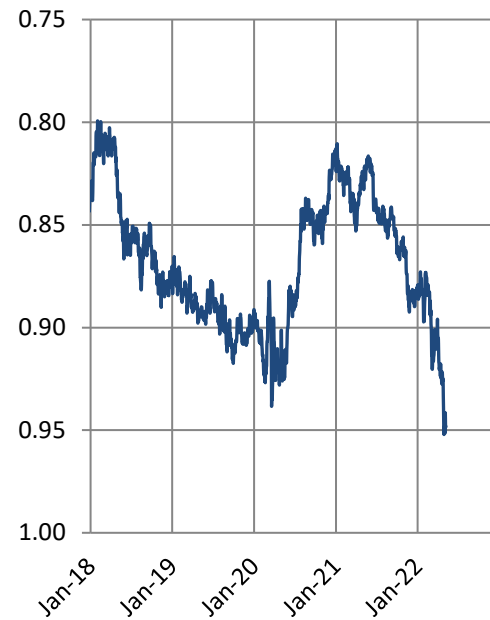
Exchange rate: RMB/USD



Source: Google Finance, Hawkins Wright

Eurozone

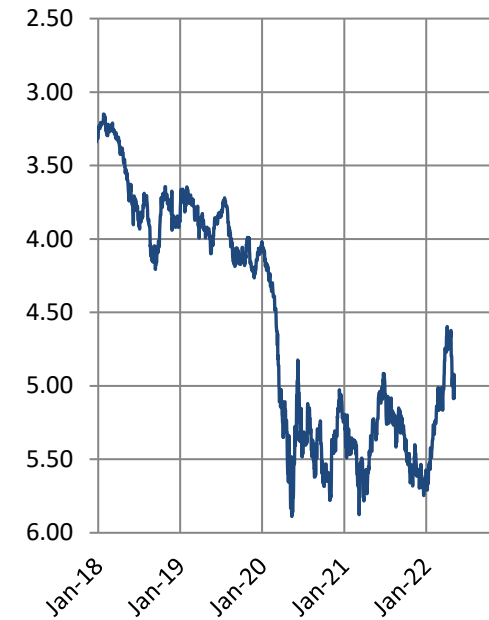
Exchange rate: EUR/USD



Source: Google Finance, Hawkins Wright

Brazil

Exchange rate: BRL/USD



Source: Google Finance, Hawkins Wright

Canada

Exchange rate: CAD/USD



Source: Google Finance, Hawkins Wright



Big questions...mostly macro in nature...

- When will supply chains normalise? This is not just about containers, and procurement strategies will change permanently
- Is recession inevitable? If so when & how big? Stagflation?
- How will China's covid strategy evolve? How will it tackle debt? Something's got to give...
- How long will the Russian invasion continue and what will be the long term legacy?