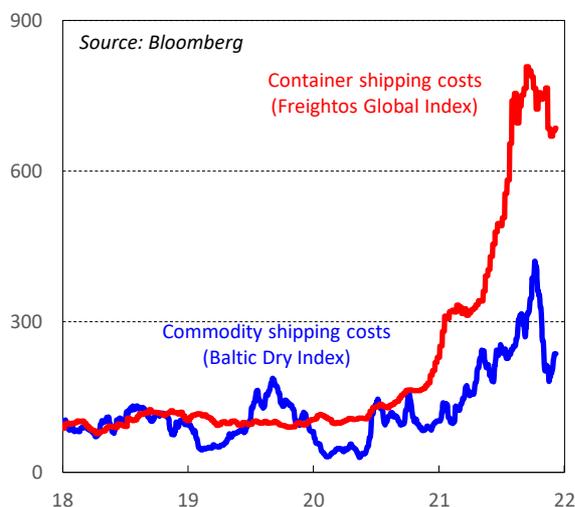


# Snowballing Supply Chain Disruptions

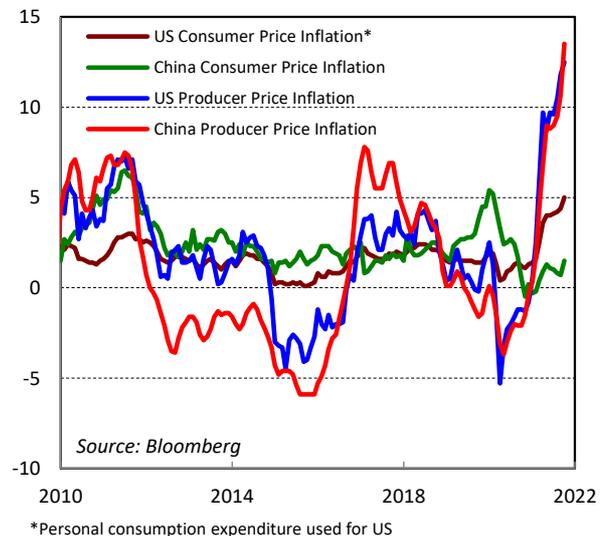
## Central Banks Eyeing Inflation Risks

- Supply bottlenecks are causing long delivery delays, skyrocketing shipping costs and material shortages. And these issues are likely to stick around for some time yet.
- Problems first emerged in 2020 following pandemic-related disruptions to global transport networks, production and spending behaviours. They have been exacerbated by a number of idiosyncratic factors such as the power shortage in China and trade tensions.
- The impact has been wide-reaching. In Australia, businesses in manufacturing, construction, retail and wholesale trade are among the most likely to report being affected. Businesses which rely less on physical deliveries, such as finance, have been relatively shielded.
- Our customer liaison suggests bottlenecks could last at least another 12 months. The Reserve Bank posits pressures may ease over the next six months, as consumption rebalances back to services. The emergence of Omicron casts new uncertainty over the outlook for supply chains.
- The disruptions have contributed to growing price pressures. Producer price inflation has risen to its highest level in many years in the US and China. Central banks, until recently, characterised these pressures as transitory. Markets think otherwise.
- We expect the first RBA rate hike will come in early 2023. But, no doubt, there are upside inflation risks. If supply bottlenecks endure and energy prices remain elevated for longer than expected, lift off in 2022 certainly isn't out of the question.

**Global Shipping Prices**  
(Index, 2019 average = 100)



**Headline Inflation**  
(annual %)



## **A perfect storm**

If you have ordered anything online recently, you can probably attest to the impact of supply chain disruptions. Delays in deliveries have become standard, alongside skyrocketing shipping costs for importers and exporters. The lengthy delays mean some businesses are facing material shortages.

So, what exactly is underpinning the bottlenecks?

Well, as much as I like a succinct answer, there isn't just one cause.

Much of the problem stems from COVID-19-related developments. Transport bottlenecks emerged last year because of a sharp increase in global demand for goods. Due to lockdowns, the demand for goods jumped sharply while services consumption plummeted. For example, with travel off the cards, people opted to buy a new TV or deck out their home office.

But at the same time, factories were hit with constraints on their operations. Social-distancing requirements, restrictions on the movement of people, and other onerous health and safety measures, hindered the output of factories.

Under these conditions, it wasn't long before cracks began to appear in supply chains.

As 2020 wore on, a global shortage of shipping containers emerged, as well as a mismatch in the location of containers, which were often full in one direction and empty in the other. This shortage was exacerbated by congestion at some ports, as increased trading volumes coincided with reduced capacity from pandemic restrictions.

On top of that, global supply chains have also been hit by diplomatic tensions, power shortages in China and extreme weather. Oh, and the Suez Canal was also blocked for six days in March this year.

All that is to say, the bottlenecks in supply chains are a complex, multifaceted problem and they are unlikely to be resolved in the short term.

## **Wide-reaching ripples**

The disruptions have snowballed over the past year. Purchasing managers' index surveys, conducted by Markit in 44 countries, provide one measure of bottlenecks; businesses are surveyed on the delivery times of suppliers. Through 2021, the survey suggests supplier delivery times have consistently deteriorated across the globe.

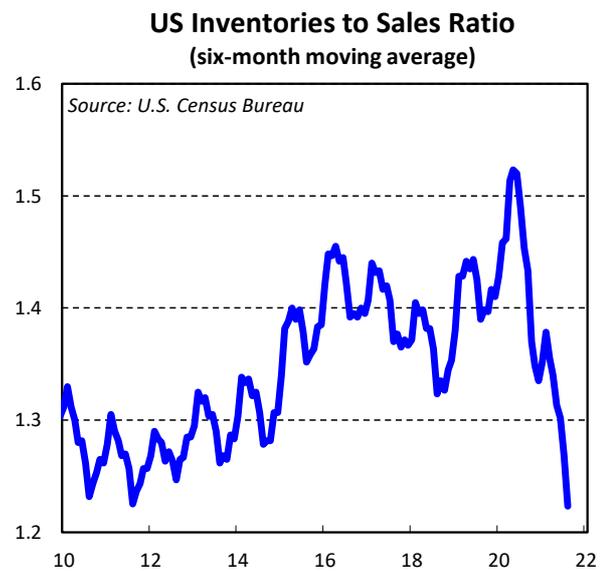
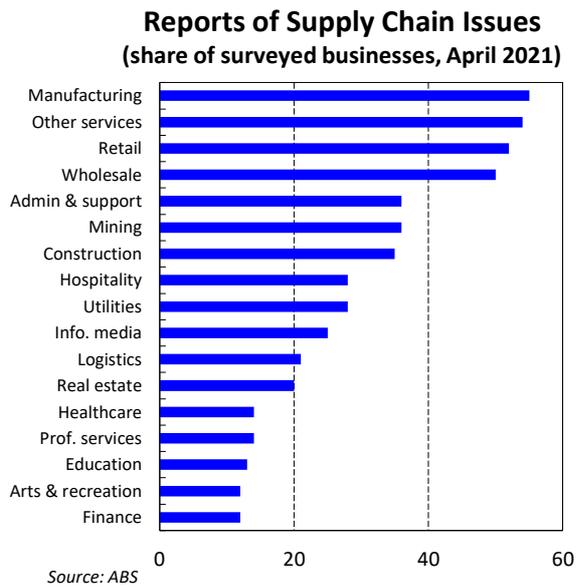
Inventories have also been run down as businesses have struggled to keep up with demand. In the US, the ratio of inventories to sales has reached record lows. Similar patterns have been exhibited in Australia.

Meanwhile, container shipping costs have surged over 600% since the start of 2020, according to the Freightos Baltic Index – a benchmark metric based on freight rates in 12 important maritime lanes. Costs have moderated somewhat in recent months. Encouragingly, the Baltic Dry index – a proxy for dry bulk shipping costs – has fallen more significantly, although also remains elevated relative to pre-COVID levels.

An April survey conducted by the Australian Bureau of Statistics found around 30% of Australian businesses had been impacted by supply chain problems. However, given these issues have continued to persist throughout the year, this figure is likely higher now.

In Australia, businesses in manufacturing, construction, retail and wholesale trade have been among the most likely to report being affected. Notably, a shortage in semiconductors has hit vehicle production hard. There have also been significant disruptions to consumer electronics,

appliances and furniture. Unsurprisingly, businesses which rely less on physical deliveries, such as finance and professional services, have been relatively shielded.



In light of the developments over the past 18 months, many businesses have reassessed the resilience of their supply chains, pushing some businesses to diversify their supply network to avoid dependency on a particular country.

Importantly for Australian manufacturers, there is a push to scale up domestic production capabilities for critical products. The government has noted medicine, personal protective equipment and fertilisers as points of focus.

### Relief is coming... eventually

The immediate question is, how much longer will these disruptions persist?

Unfortunately, it will take some time for these bottlenecks to be worked out. Our customer liaison suggests that disruptions will persist in some form for at least another 12 months.

On the upside, the move to relax COVID-19 restrictions around the world (notwithstanding recent setbacks in some countries) will see a rebalancing in consumption back towards services and away from goods. The Reserve Bank (RBA) Governor Lowe has recently stated he expects this shift may help disruptions begin to ease over the next six months. However, Lowe made these remarks before the emergence of Omicron, which could see disruptions persist for longer.

### Elevated energy prices

Another consequence of supply disruptions is that energy-related commodity prices have increased significantly since the middle of the year. Energy prices have also been boosted by strong demand for goods alongside the global economic recovery.

Thermal coal and liquefied natural gas prices – important Australian exports – are around their highest level in a decade, even after a recent pullback. Similarly, the WTI crude oil price recently hit around US\$85 per barrel, its highest level in seven years, although it has since dropped back to the low 70s.

Some idiosyncratic supply-side factors have also contributed to the upwards pressure on prices recently, including China's 'Blue Sky' initiative to curb pollution ahead of the 2022 Beijing

Olympics.

As global growth moderates and supply bottlenecks are worked through, we expect commodity prices will begin pullback over the year ahead. However, considerable uncertainty persists over the outlook for commodity prices.

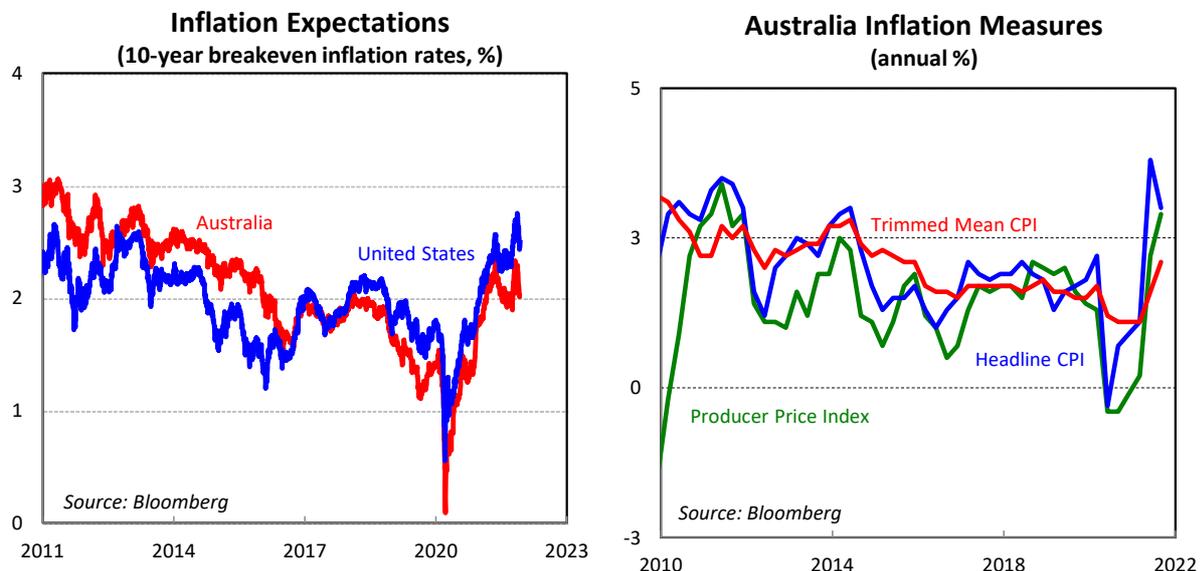
## Inflationary pressures are swelling

The disruptions to supply chains, strong goods demand, and the lift in energy prices has pushed producer price inflation to its highest level in many years in a number of economies. However, the extent to which this has been passed onto consumers varies.

This has put inflation front and centre of the policymaking agenda. In fact, US President Biden has said that reversing inflation is a top priority, as sharp increases in prices weigh on his approval ratings.

In the US and China, annual producer price inflation surged to 12.5% and 13.5%, respectively, in the year to October. In the US, personal consumption expenditure (the Federal Reserve's target measure of consumer prices) hit 5.0% in October, the fastest rate since the early 1990s. Meanwhile, annual headline consumer price inflation in China remains low at 1.5% in the year to October. This partly reflects declines in food prices but also indicates there has been little pass through to consumer prices to date. The longer these pressures remain, the greater the risk of pass to consumers.

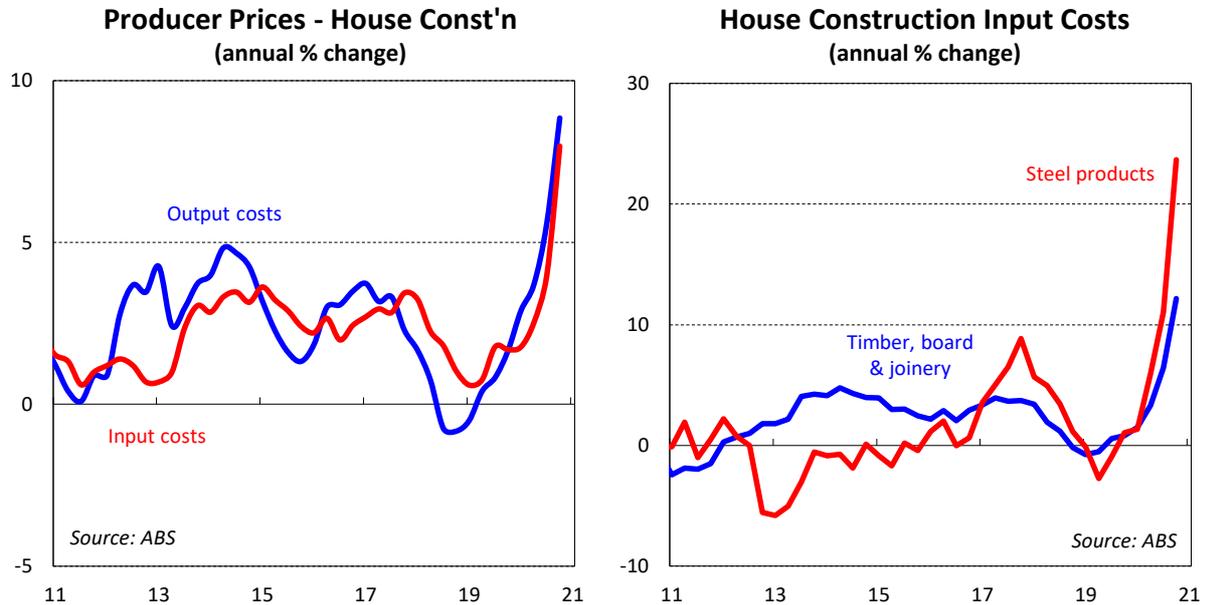
One market-based measure of long-term inflation expectations is the 10-year breakeven inflation rate. The US 10-year breakeven inflation rate has climbed steadily since March 2020, and touched 2.75% in recent weeks, just shy of the record high in 2004. The 10-year breakeven inflation rate in Australia has also risen significantly, hovering around the low 2s in recent months.



In Australia, supply chain disruptions have contributed to large price increases for some consumer durable items, including cars and some household goods. These disruptions, alongside the lift in energy prices, and pushed up annual headline consumer price inflation (CPI) to 3.0% in the September quarter. But overall, producer price inflation remains much lower than some other parts of the world, touching 2.9% in the September quarter. Meanwhile, trimmed mean CPI, a measure of underlying price pressures and the Reserve Bank's preferred measure of inflation, is still modest. In fact, it just crept up to 2.1% in the September quarter. If producer prices lift more than consumer prices, this may squeeze the profit margins of some businesses, as it suggests rising

costs have not been entirely passed onto consumers.

There are pockets of strong price pressures however, such as in housing construction. Input and output costs for housing construction were both up over 8% in the year to the September quarter. Notably, the price of steel inputs were up more than 20% over the year, while timber, board & joinery inputs were up over 10%.



## Pandemic curveballs

The emergence of the Omicron variant in recent weeks is a reminder that the pandemic continues to cloud the outlook with uncertainty. Relatedly, it also casts doubt over when supply bottlenecks will be resolved.

It is early days, and official sources are yet to confirm the transmissibility or severity of the variant. Current vaccines are expected to provide some protection against severe illness although some reports suggest breakthrough infections in fully vaccinated people will be more likely with the Omicron variant. Case numbers have increased sharply in South Africa, the origin of the variant, but epidemiologic studies are still underway to understand if it is because of Omicron or other factors.

Subsequently, it is too soon to assess the economic implications of the variant. A good outcome would be that the variant is less severe than previous iterations of the virus and that current vaccines provide effective protection. This would mean governments do not need to reimpose restrictions and would allow bottlenecks to begin to ease.

On the flip side, a couple of scenarios are possible if the variant leads to poorer health outcomes and lockdowns are reintroduced. One possibility is that it exacerbates supply disruptions and prolongs higher inflation. In contrast, another possibility is that lockdowns clip demand, and, in turn inflation will recede much faster.

## Central banks are watching closely

Central banks, up until recently, have been at pains to underscore inflationary pressures are transitory. Markets have not been convinced, and accordingly have priced in that rates will lift sooner than central banks have indicated. Last week, the US Federal Reserve Chair Powell admitted it was time to retire the use of "transitory" in describing inflation.

The longer supply disruptions persist, the bigger the likelihood that temporary price increases will become entrenched. The risk for central banks is the increase in inflation is faster and more persistent than they have forecast.

This could force policymakers into a difficult trade-off, where they would be holding rates low to support the recovery in employment but exacerbating price pressures. Or, they could hike rates to dampen price pressures, but pre-emptively stifle the jobs market recovery.

We expect inflation will pick up faster than the RBA has indicated – we forecast underlying inflation will be a little under 3% at the end of next year while the RBA expects a bit over 2%.

But we also think market pricing has overshot. Markets are pinning the first rate hike in the second half of 2022. We stand by our long-held view that the first move will come in early 2023. But no doubt there are risks to the upside for inflation. If supply bottlenecks endure and energy prices remain elevated longer than expected, rate lift off in 2022 certainly isn't fully out of the question.

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