ECONOMIC UPDATE

IT MAY NOT BE A BACK TO FUTURE MOMENT BUT HISTORY SURE DOES RHY

Prepared by: Senior Economist, Justin Smirk

Westpac Institutional Bank

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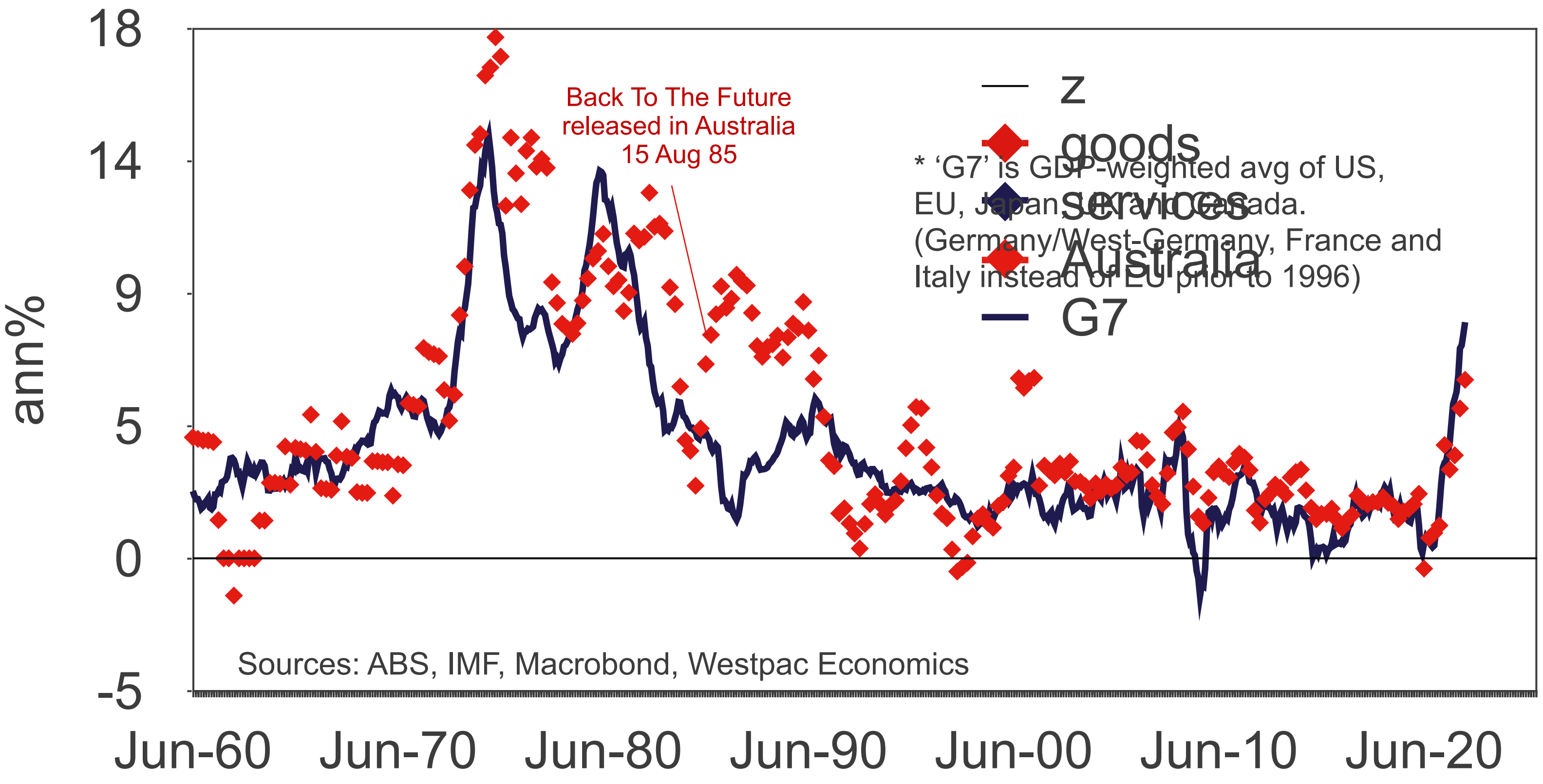
Summary of 2021 presentation

- Locally, the current contraction will be replaced by a tentative recovery in late 2021 with a stronger recovery in 2022.
- Risks remain around vaccination rates; preference of 90% to protect hospital system. No extended lock downs in other states.
- **RBA cash rate would rise in first quarter of 2023.**
- US shows that wide differences in vaccination rates between regions can result in deep shocks.
- US labour market strong – Fed to begin taper QE in early 2022; raise rates in Dec 2022. Bond rates are way too low – will adjust as QE is unwound.
- Global growth revised down due to COVID/ China uncertainty – lower but still positive profile for AUD through to 2023 – US$0.80 target.
- 2021 is shaping up as one of the best years in memory for much of Australia's agricultural regions. Trade issues are a headwind in some sectors while labour shortages present significant challenges.
- Ongoing labour shortages will reshape much of the industry as it restructures itself.
- China remains an important market but India will have greater growth in demand for many commodities.
- The roadmap to net zero by 2050 presents opportunities as well as risk for the agricultural sector.

Inflation, 1970's vs now

Australian inflation has tended to move with global inflation

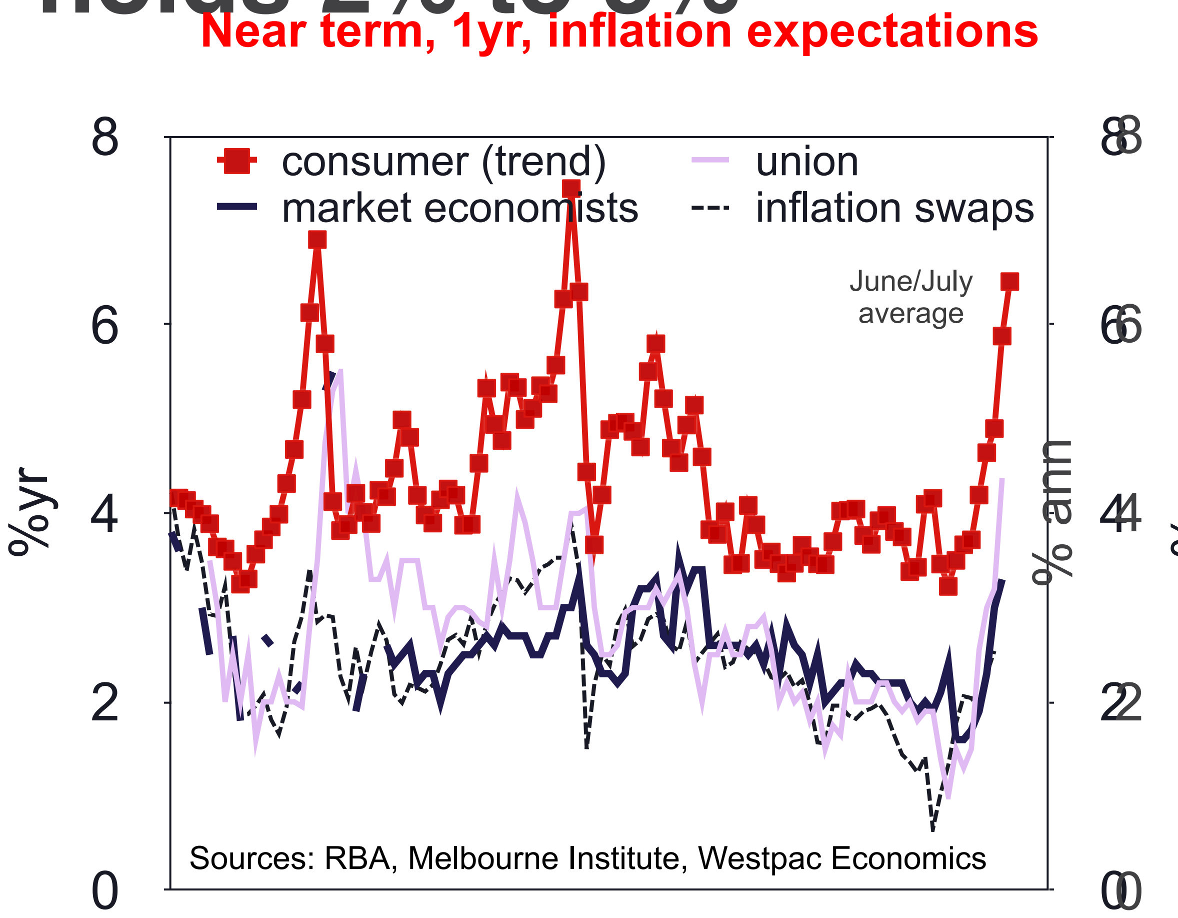


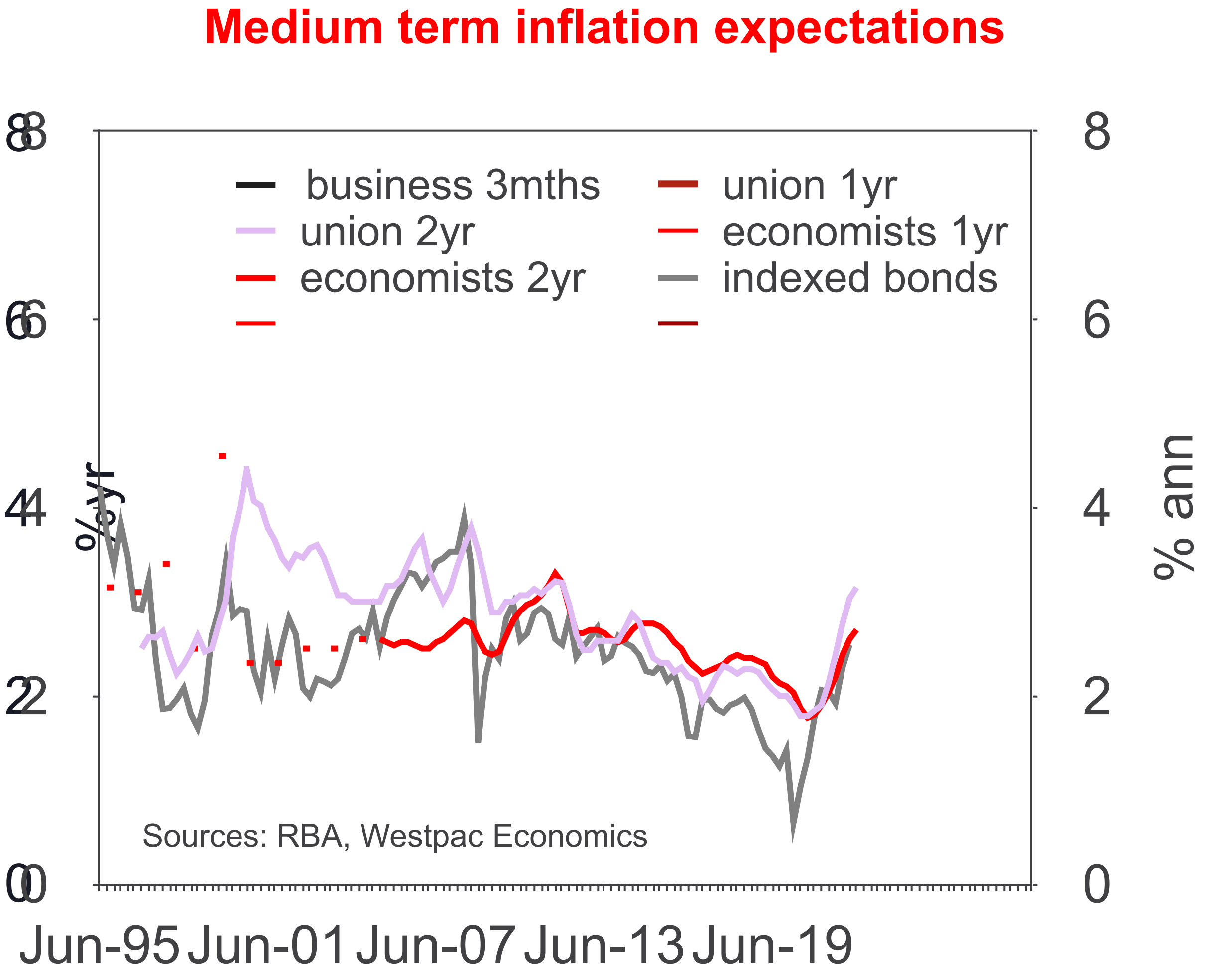
Inflation hitting 40yr highs with biggest annual lift in nearly 50yrs.

Key differences this time are:

- scale and duration of shocks,
- economy's energy dependence,
- structural rigidities (i.e. labour market structure, corporate strategies, globalisation), and
- central bank independence and mandates

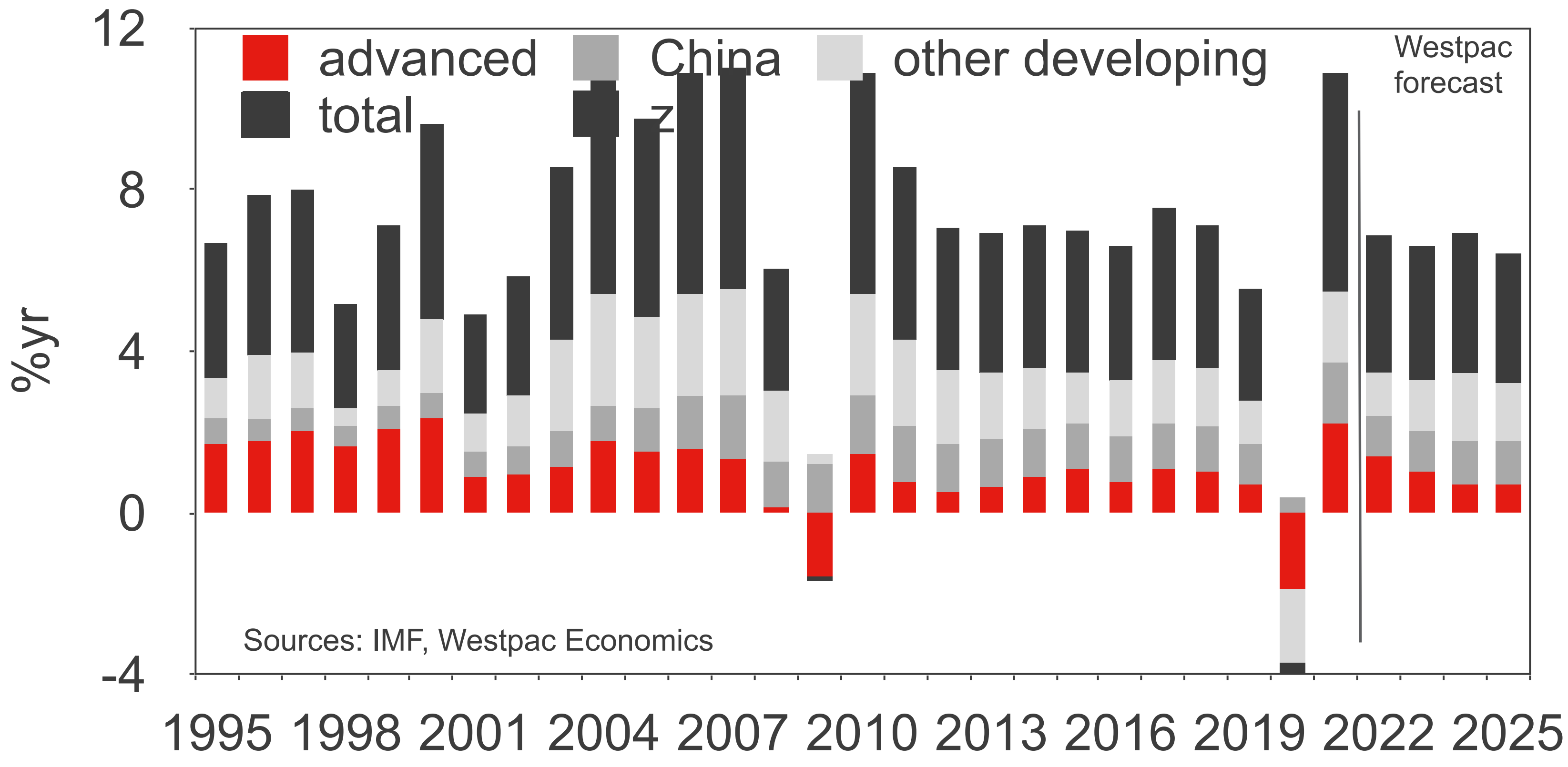
Near term expectations lift as medium term holds 2% to 3%





World growth: pre-omicron recovery still intact

Growth bounced out of lockdowns then returns to trend



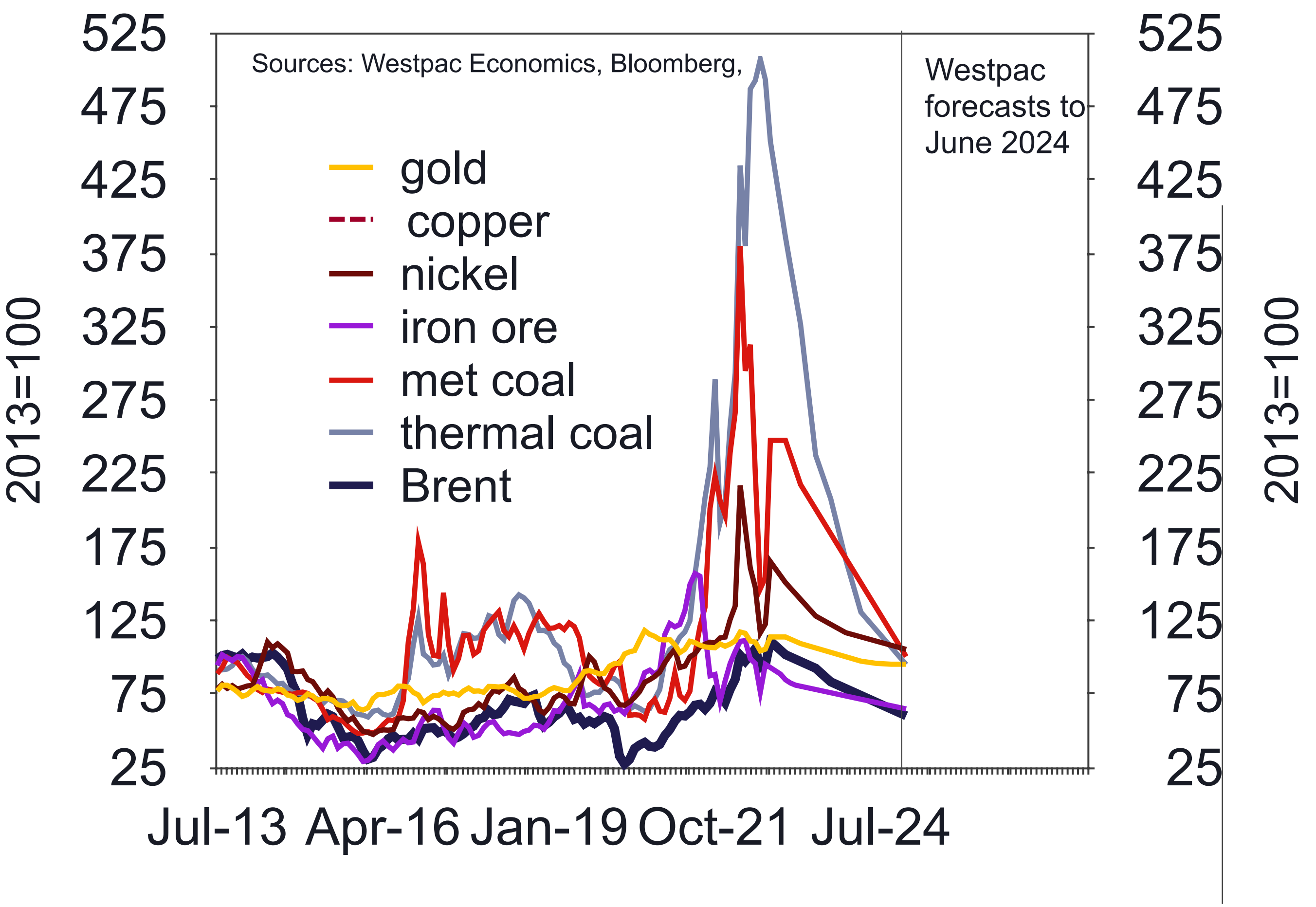
- We have passed the sweet spot from the post COVID recovery.
- As 2022 matures growth is now coming with much higher inflation
- The pandemic disruptions are manifesting as a productivity shock = higher inflation for given level of output.
- Russia's invasion of Ukraine, and the response from NATO and its allies, roiled markets but most commodity prices are back below pre-Ukraine levels.
- G3 skirting recession in 2023, growth of 1.3% and risk of extended period of stagnation.
- Developing economies better placed to weather the storm.

Extreme volatility highlights broader cycle in inflation

Commodities shifted in the last month

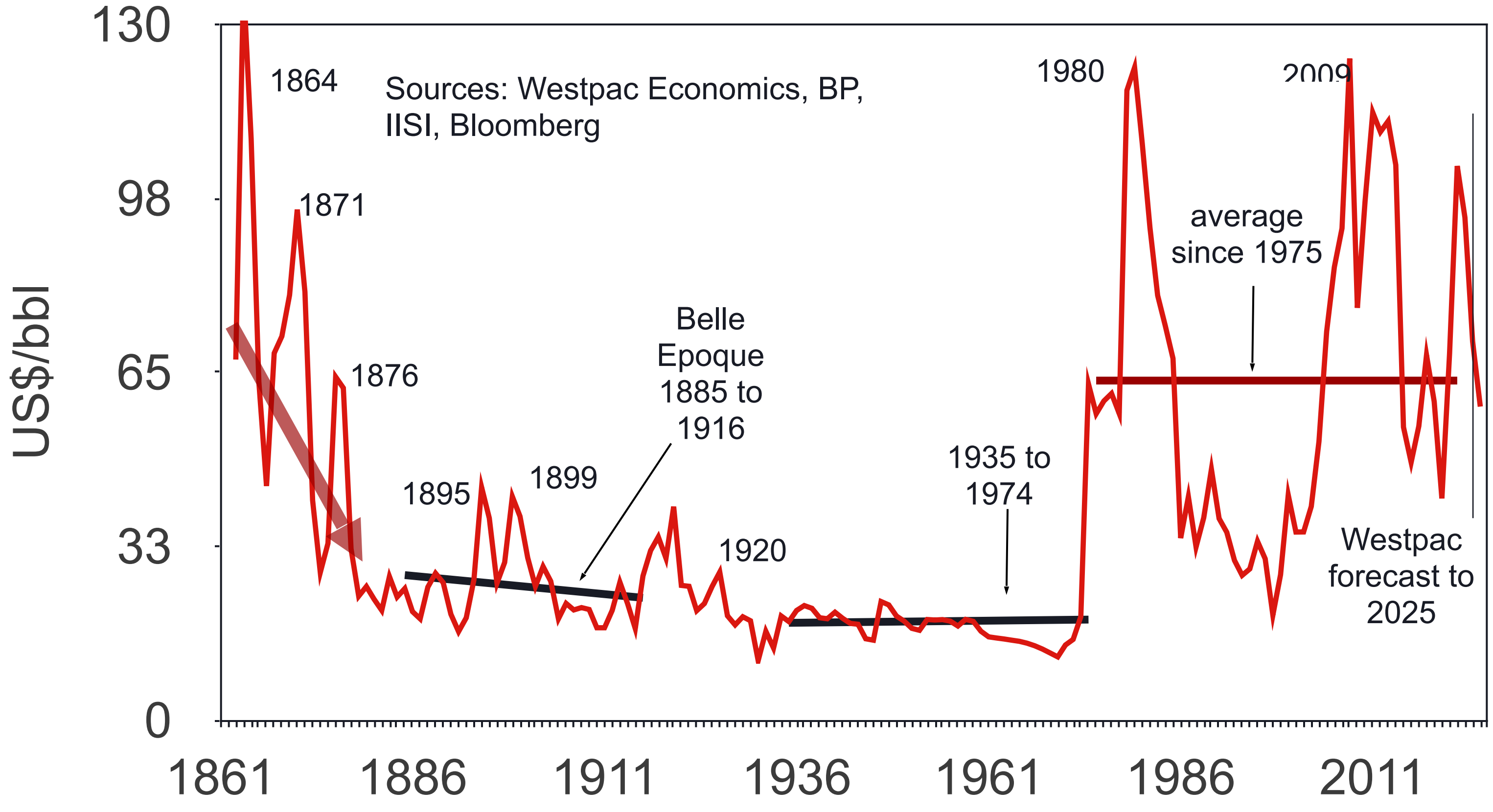
	Current	% change since	% change Jun 21 to
	19-Jul-22	10-Jun-22	10-Jun-22
Wheat	806	-26	60
Crude Oil, Brent	98	4	60
Thermal Coal	432	74	207
Met Coal	204	-49	119
Iron Ore	100	-27	-33
Nickel	19,703	-20	56
Copper	7,241	-27	3
Export Price Index	332	-18	22

Australian commodities



It seems US$120/bbl is a critical touch point

Oil prices adjusted for inflation – in 2022 US dollars



The oil price shocks of 1980 and 2009 peaked at US$120 barrel in year average terms.

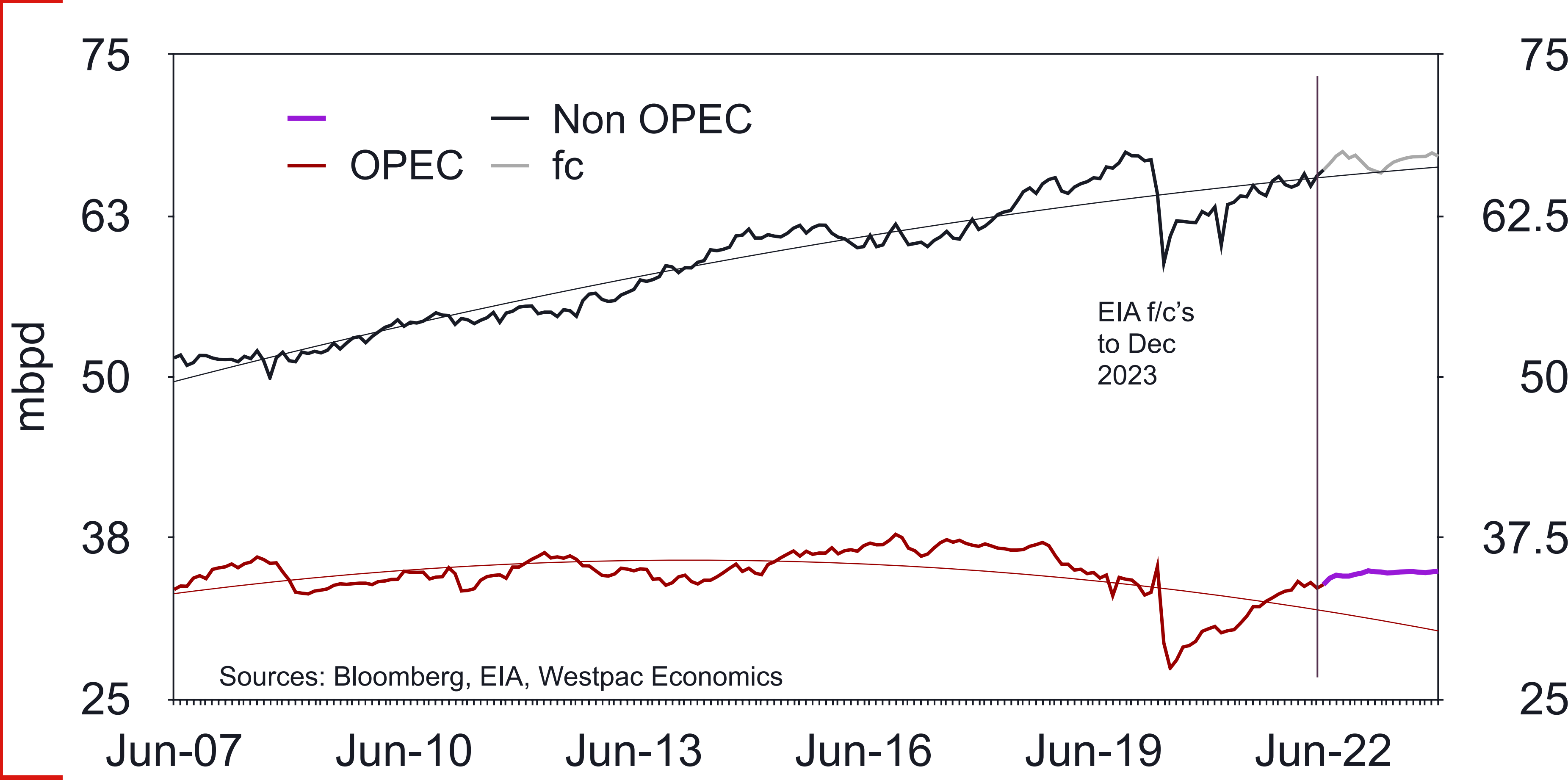
Average real price since 1975 is US$63/bbl

- From 1935 to 1974 crude oil prices average around US$20/bbl even lower down to close to US$10/bbl through the 60's and into the 70's,
- The two early oil price shocks, 1975 & 1980 were a significant shift in the market with massive economic, social & political implications.
- The 2008 shock was due to surging developing world demand and was resolved by US fracking.

OPEC+

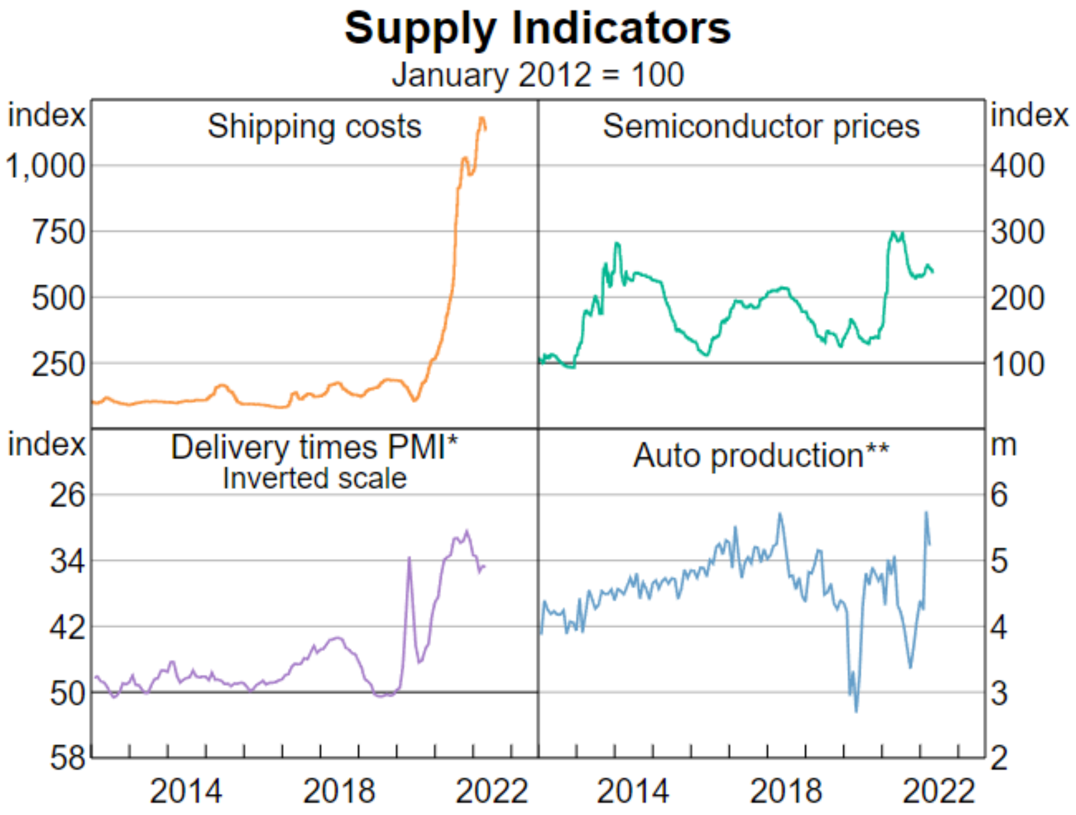
Does not have much scope to lift production while non-OPEC ss making only modest gains as the trendin production levels out.

Non-OPEC still below pre-Covid levels



Global supply chains still struggling

Shipping cost pressures remain even if there are signs of a peak



* Purchasing Managers' Index; excluding China.

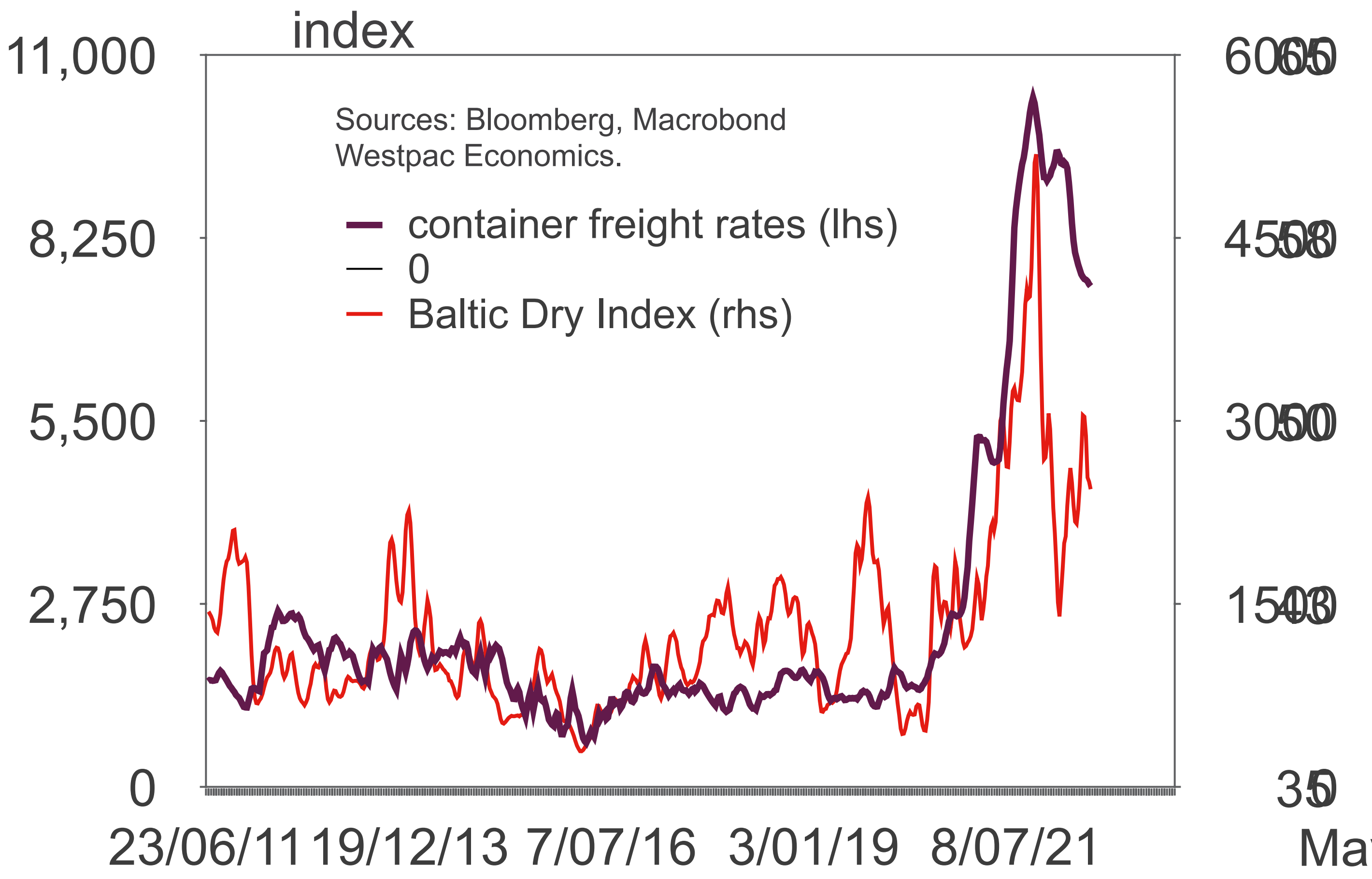
** Top five producing countries.

Sources: IHS Markit; RBA; Refinitiv

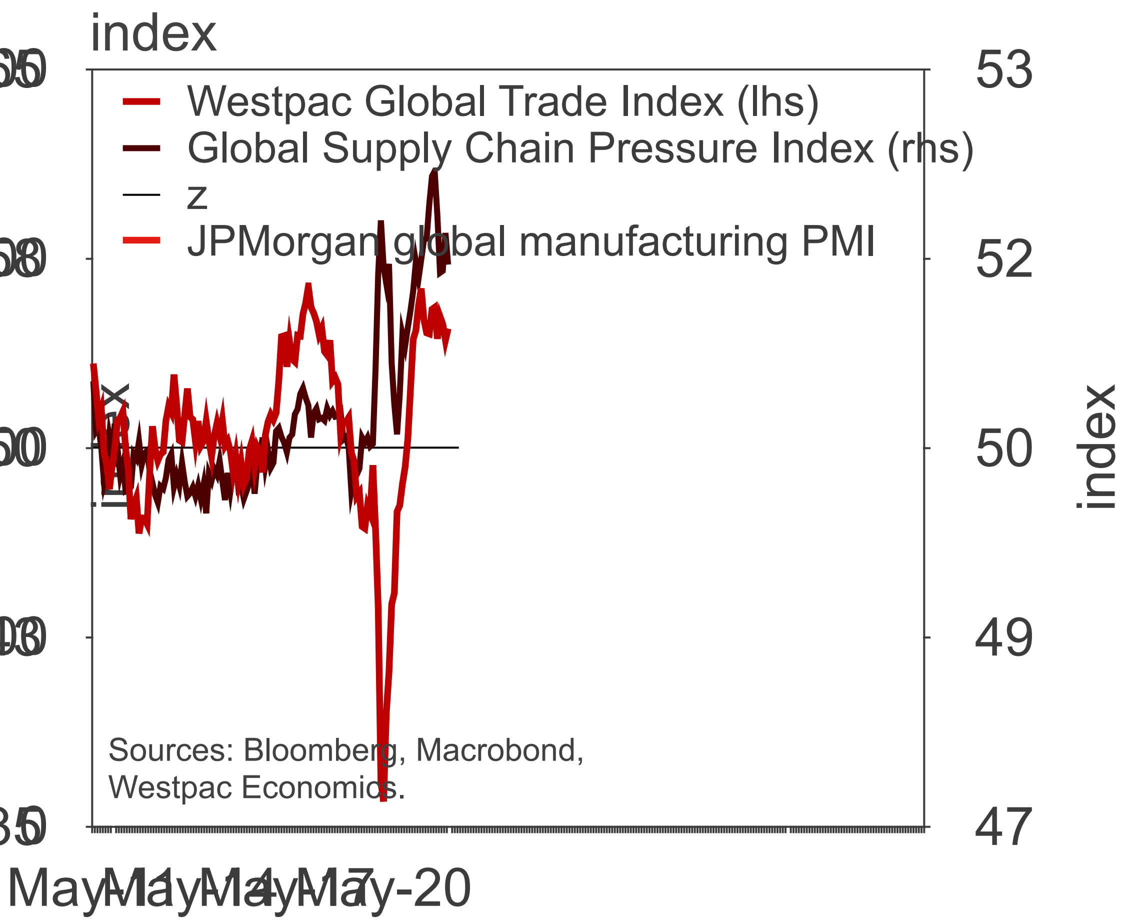
- China, which is following a zero Covid policy, presents a specific risk for trade.
- Continued intermittent disruptions from COVID restrictions very likely.
- Shipping costs look to have peaked but they are still a long way from what you would define as a meaningful correction.
- Current level of shipping costs remain a significant inflation risk.
- The disruptions to trade with Russia & Ukraine, along with conflict in the Black Sea and new outbreak of COVID in China, has added a new level of complexity to international supply chains.

Shipping rates ease but still high, container rates extreme

Container rates remain elevated

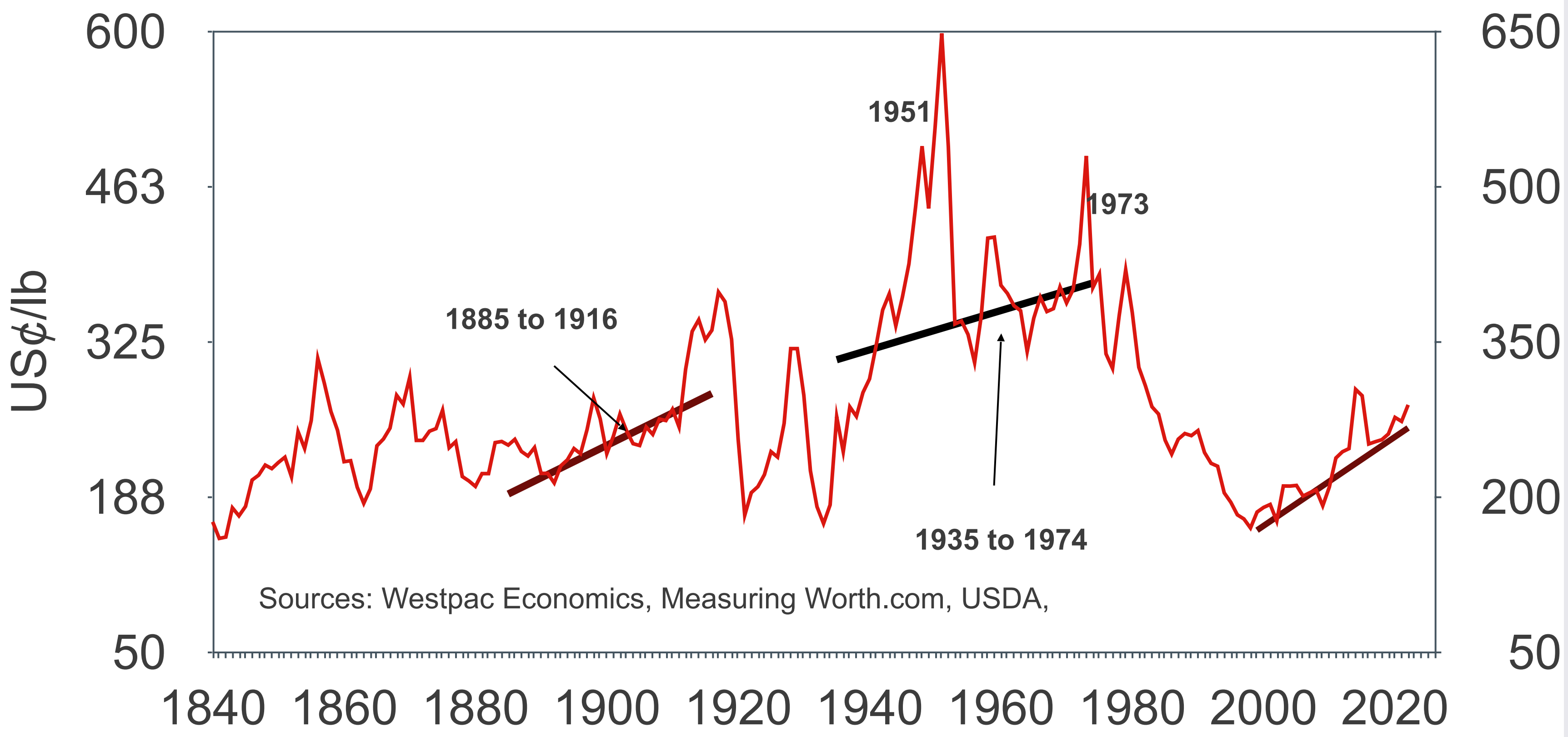


Disruptions extends with recovery



US beef prices adjusted for inflation

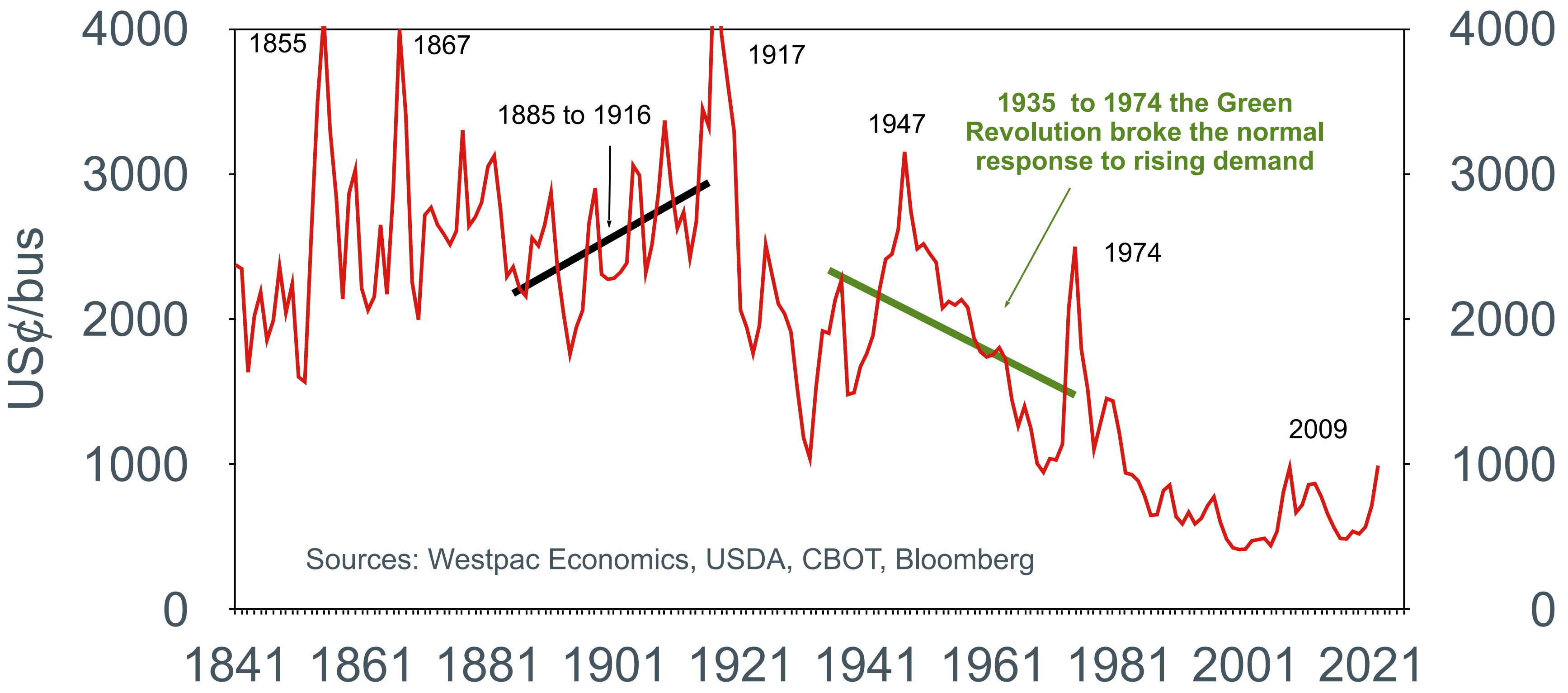
The uptrend in beef prices continues – premium for animal protein



- Periods of rapid urbanisation, rising incomes and improved storages & distribution methods resulted in a longer run trend rise in demand for beef and resulting higher trend in real (inflation beating) prices.
- Until the opening up of the Chinese economy, when rising incomes boosted the demand for animal protein, real beef prices has been in a long term trend decline since the oil crisis of the early 1970s.
- Since 2000 real beef prices have been in a robust uptrend similar to what was seen from 1885 to 1916. As incomes continue to rise China this will continue to boost the demand for beef for sometime yet.
- For 2021/22 demand is strong, especially in export as the globe recovers
- Argentine suspension of beef exports.

US wheat prices adjusted for inflation

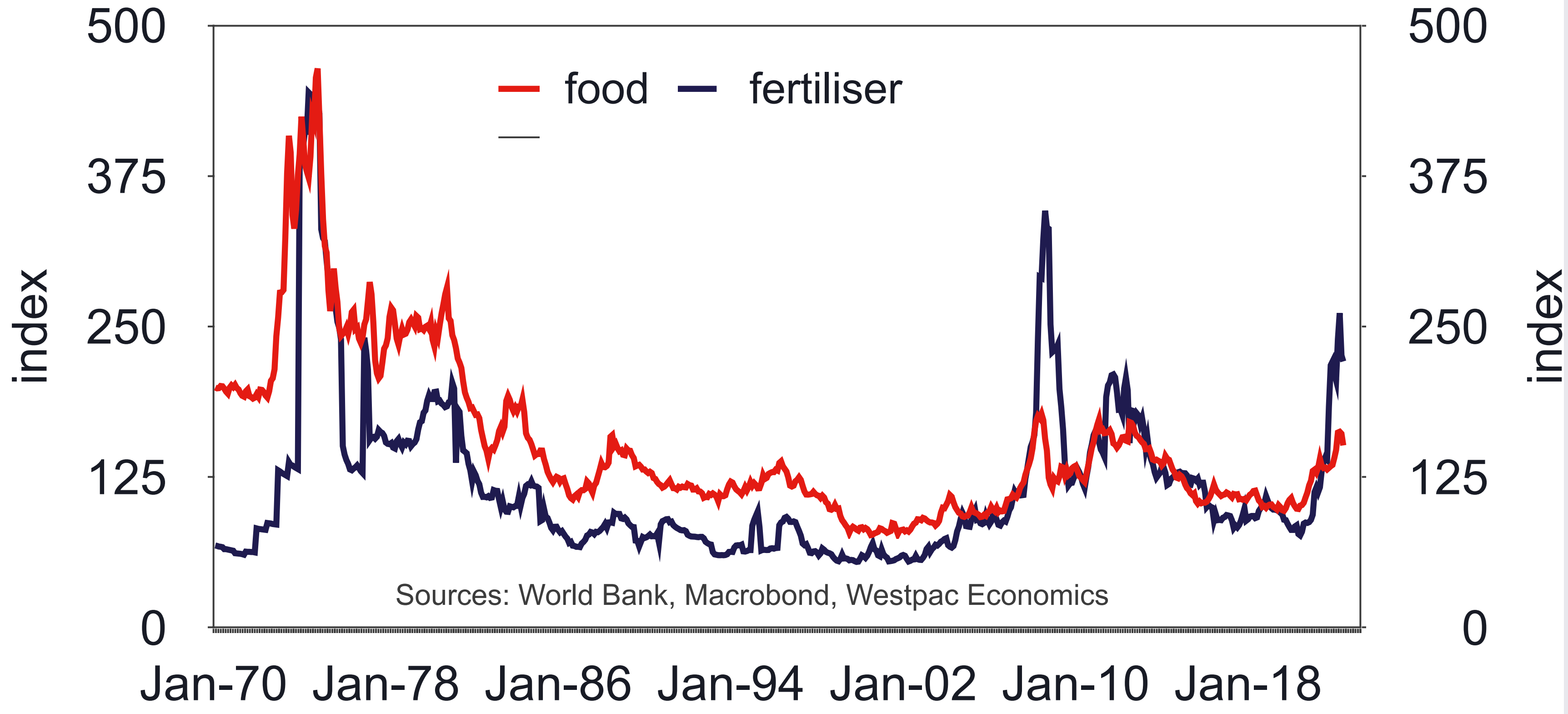
Rising productivity has benefit consumers and thus supported a much larger population more so than has supported producers incomes.



- Grain prices have been in long term downtrend due to the success of the green revolution (fertiliser, herbicides, improved tilling methods, bulk handling etc) in lifting global grain production.
- Since 2000 it appears we have found a base and may even be signs of an emerging uptrend.
- This has become possible as rising incomes and reduction in poverty provides scope for higher prices from the demand side.
- Nevertheless, the prices spike in 2009 let to food riots in some developing nations. We are back to those levels.
- For 2021/22 prices continue being supported by drought conditions in Northern America
- XXXx seasonal conditions in Australia's grain growing areas as resulted in forecasts for an above-average harvest.
- Fertiliser and freight costs have skyrocketed.

Food inflation matching 2009 but not the '70s

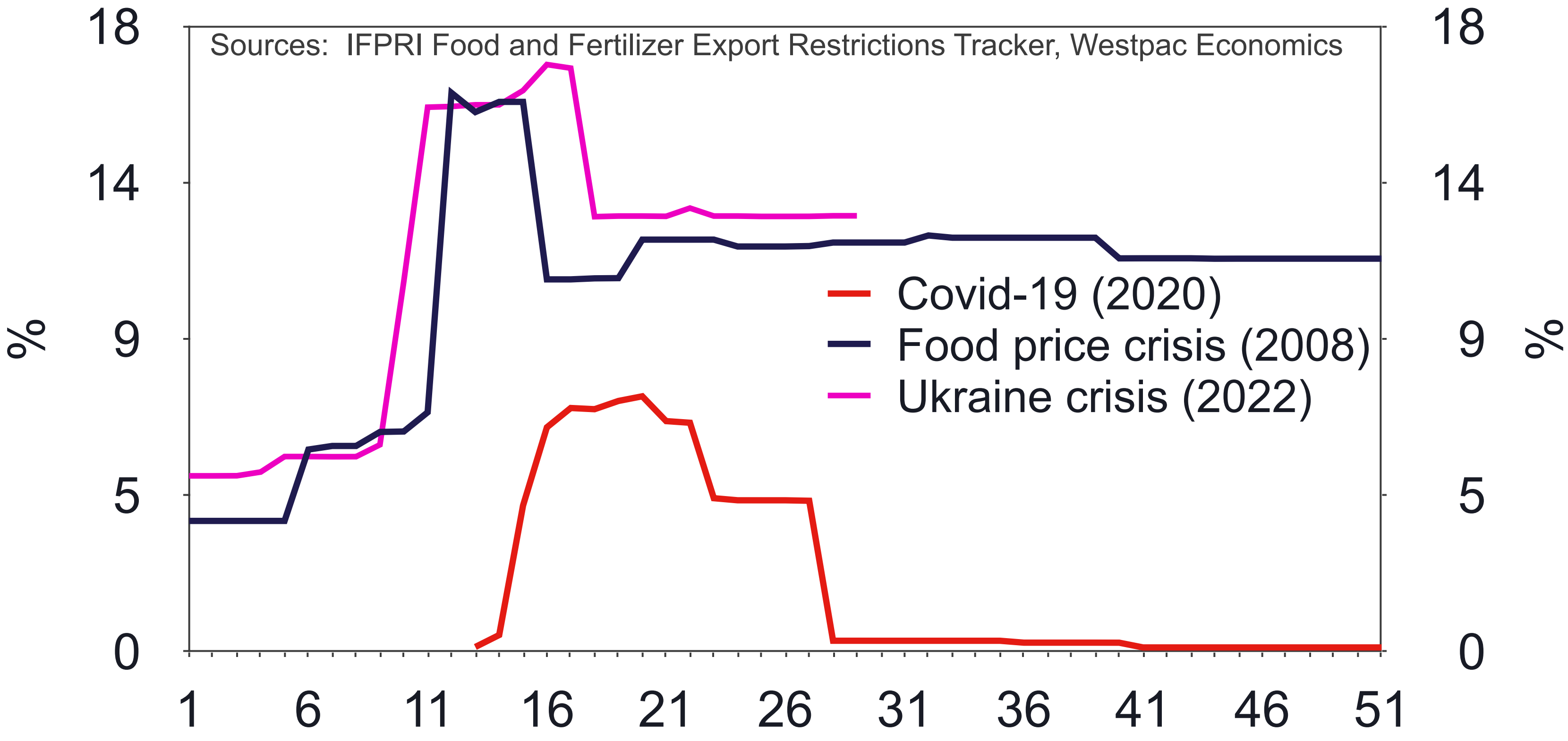
Food & fertiliser in 2022 prices (adjusted for US inflation)



- Food inflation has been rising and is not expected to ease until 2023.The World Bank noted that food prices have been rising for 2 years and by April were 78% above the 2015 to 2019 average.
- The Ukraine crisis added additional pressure with markets already under strain due to successive poor seasons for major producers.
- Energy is another underlying driver of food inflation due to to higher fertiliser prices. Sanctions on Russia are also making an indirect contribution to food prices through higher energy costs.
- Food price inflation is more widespread than in the 2008 which was limited to grains and oilseeds.
- Continued poor seasonal conditions, & higher input costs, are lowing crop prospects worldwide; the ratio of supply/demand is forecast to fall to its lowest level in 8yrs for the 12 most important agricultural commodities.

As food prices spike countries restrict trade

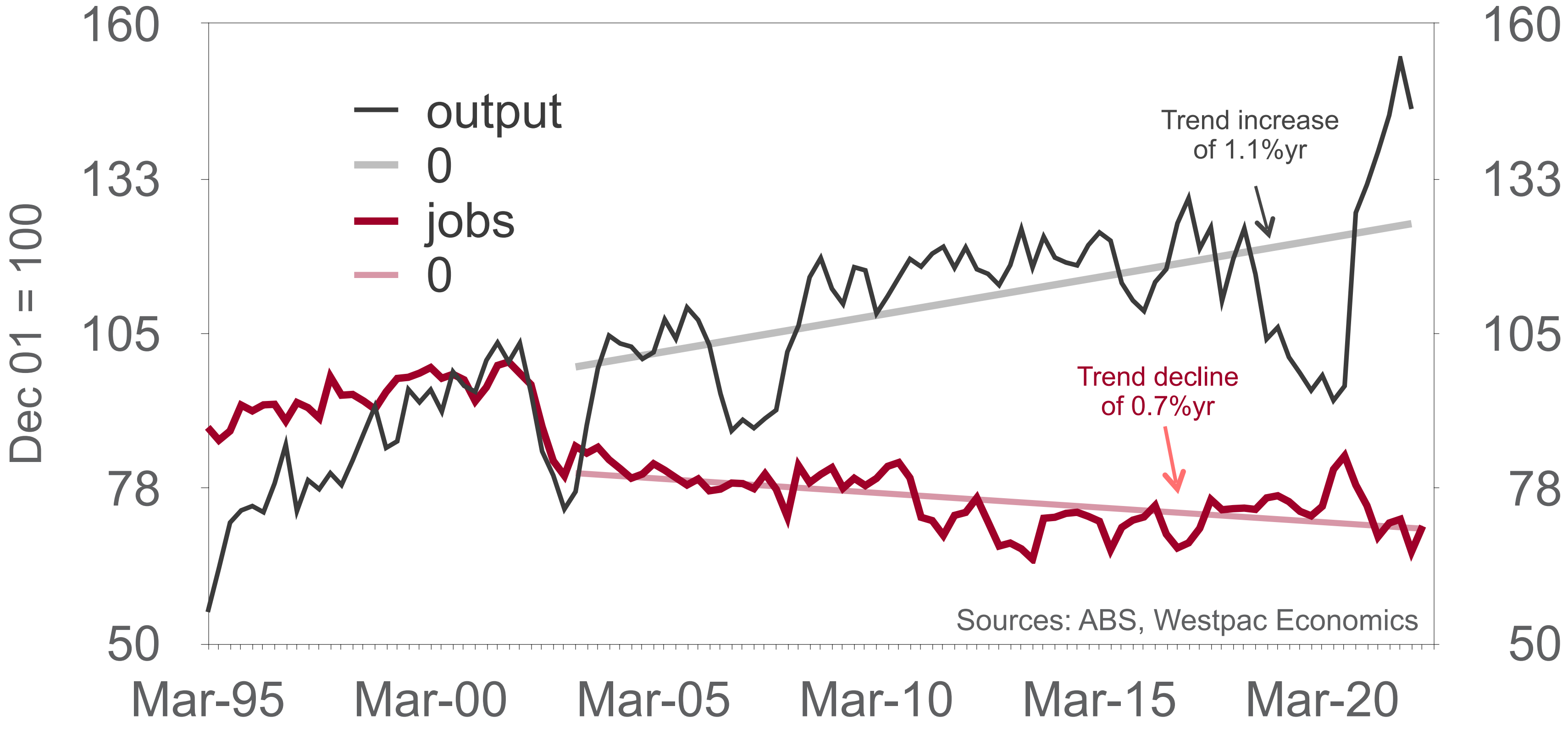
Share of global trade in calories subject to export restrictions



- Many countries have restricted trade in food – repeating policy mistakes of the 2008 food price crisis.
- Trade restrictions shift the burden of higher prices onto fewer people and most acutely those on the lowest incomes. This increases global food insecurity and is most significant in developing countries, where governments often have less ability to fund relief programs.
- According to the IFPRI food export restrictions tracker, the share of globally traded calories now subject to trade restrictions is higher than the 2008 crisis. It peaked at 17% before easing back to 12½% compared to 12¾% at the same point in 2008.
- Export restrictions are just one of policy response. Interventions in domestic production such as the extension or introduction of producer supports, interventions in input markets, such as fertiliser, and the introduction of onerous trade rules.

Agriculture continues to do more with less

Farm employment has broadly tracked sideways from 2010



Farm production soared coming out of the drought.

But farm labour has declined:

- The COVID closed borders was a significant hit to temporary farm labour supply,
- While this has been a constraint to growth farmers are learning to do more with less,
- Rising productivity is a long run historical trend,
- The 2002/2003 drought saw around 20,000 workers leave agriculture; they never returned,
- While large regional areas are benefiting from sea/tree change dynamics, smaller towns reliant on farming will continue to shrink.

Pivot

Fed quickly pivoted to rein in inflation: further rate hikes faster than first anticipated are imminent.

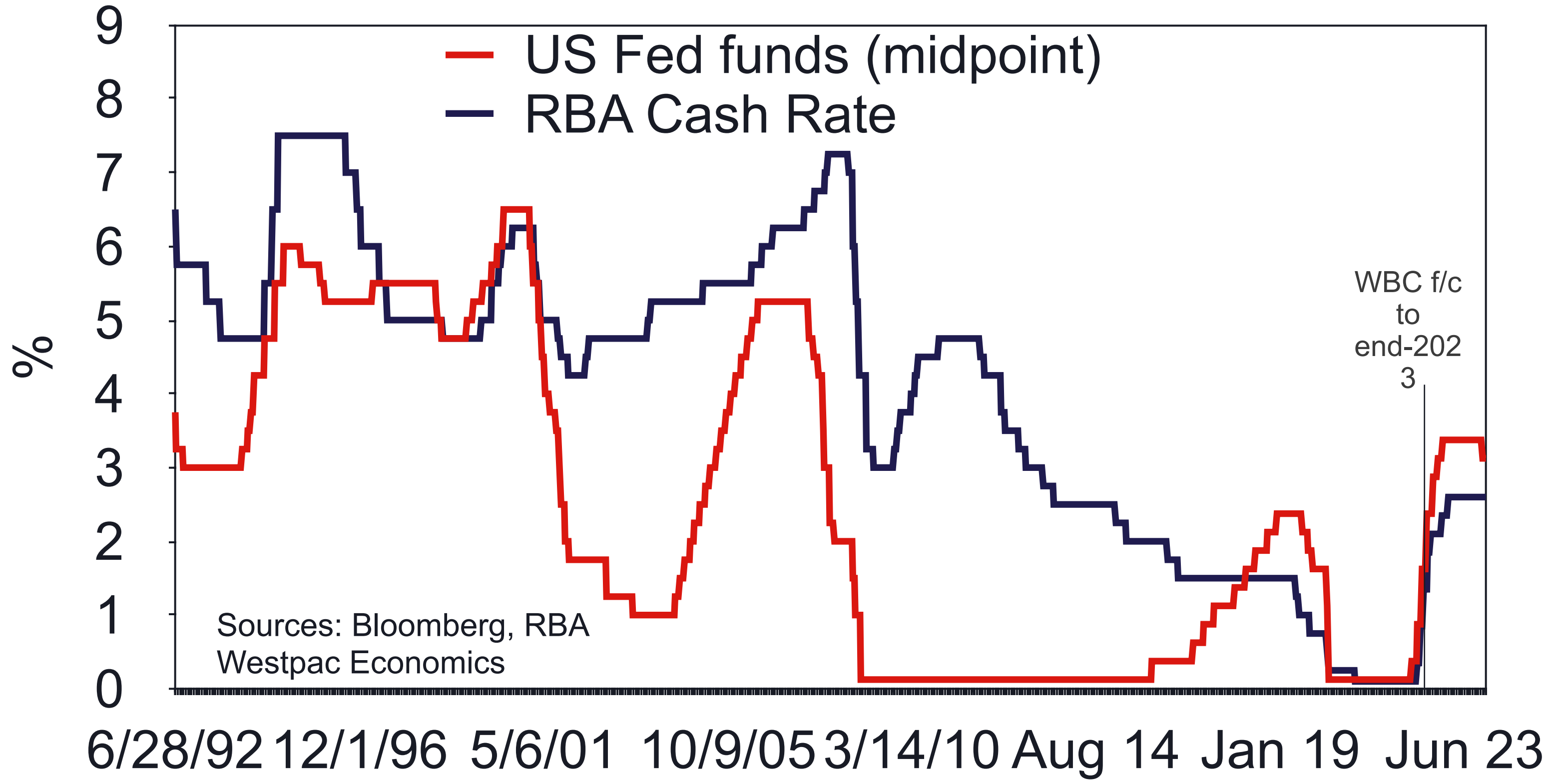
RBA was not too far behind despite earlier rhetoric.

Financial forecast out to mid 2025

	Latest	Sep-22	Jun-23	Jun-24	Jun-25
RBA Cash	1.35	2.10	2.60	2.60	2.60
Aus 10yr	3.42	3.60	3.15	2.35	2.10
3yr swap	2.98	3.55	3.10	2.75	2.70
Fed Funds	1.625	2.88	3.38	2.63	2.13
US 10yr	2.94	3.10	2.70	2.10	2.00
AUD/USD	0.6729	0.72	0.78	0.80	0.79

US and Australian interest rates

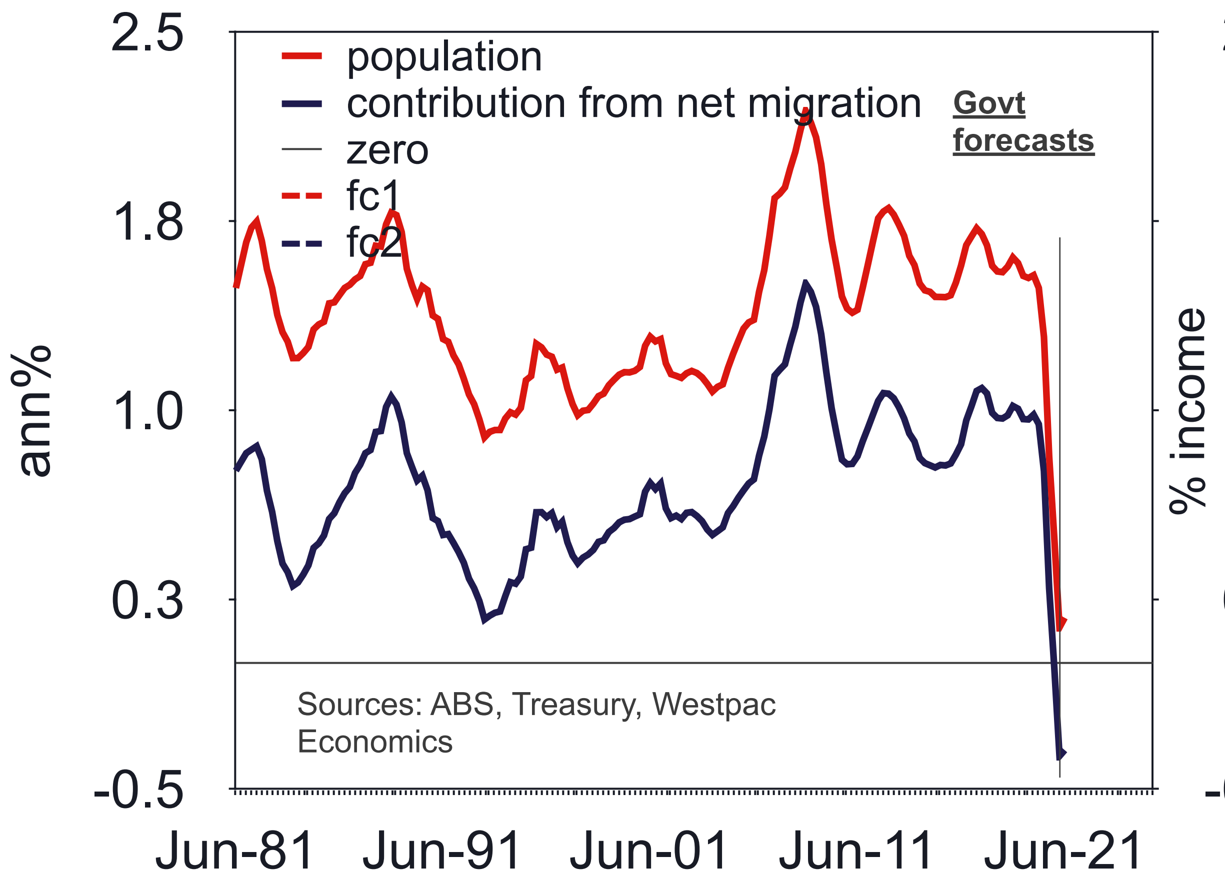
US rates higher than Aussie, an unusual situation



- Fed is expected to go very hard on rates and quickly return them to levels not scene since 2008.
- We expect the RBA to take a more measured approach but it will still be far more aggressive than their guidance was suggesting even just a few months ago.

Two key factors post Covid, population & savings

Population growth recovers



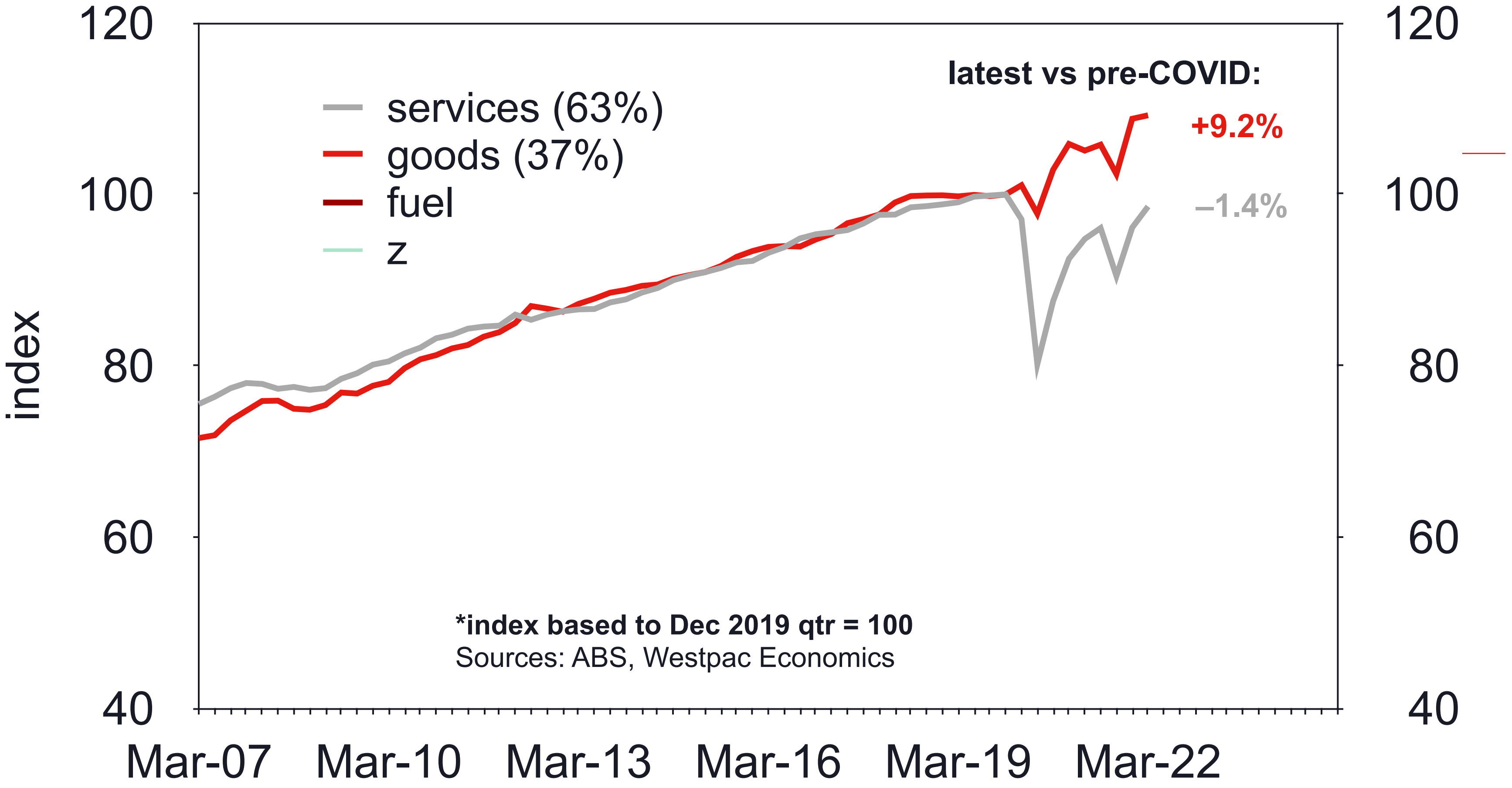
Households unwind extensive savings buffer

Aust. consumer spending: goods vs services

The expected rotation towards services still lags

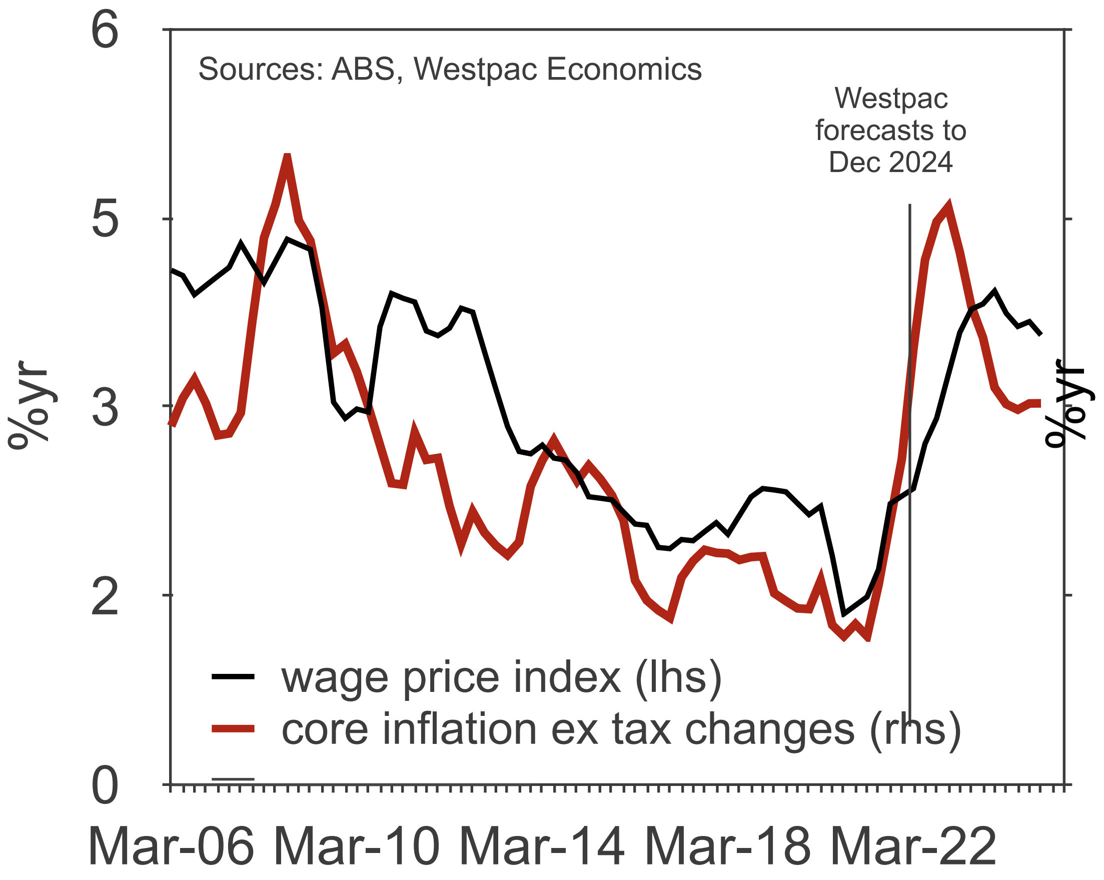
Rotation

COVID hit service sectors hard but demand for goods has surged – similar picture abroad.

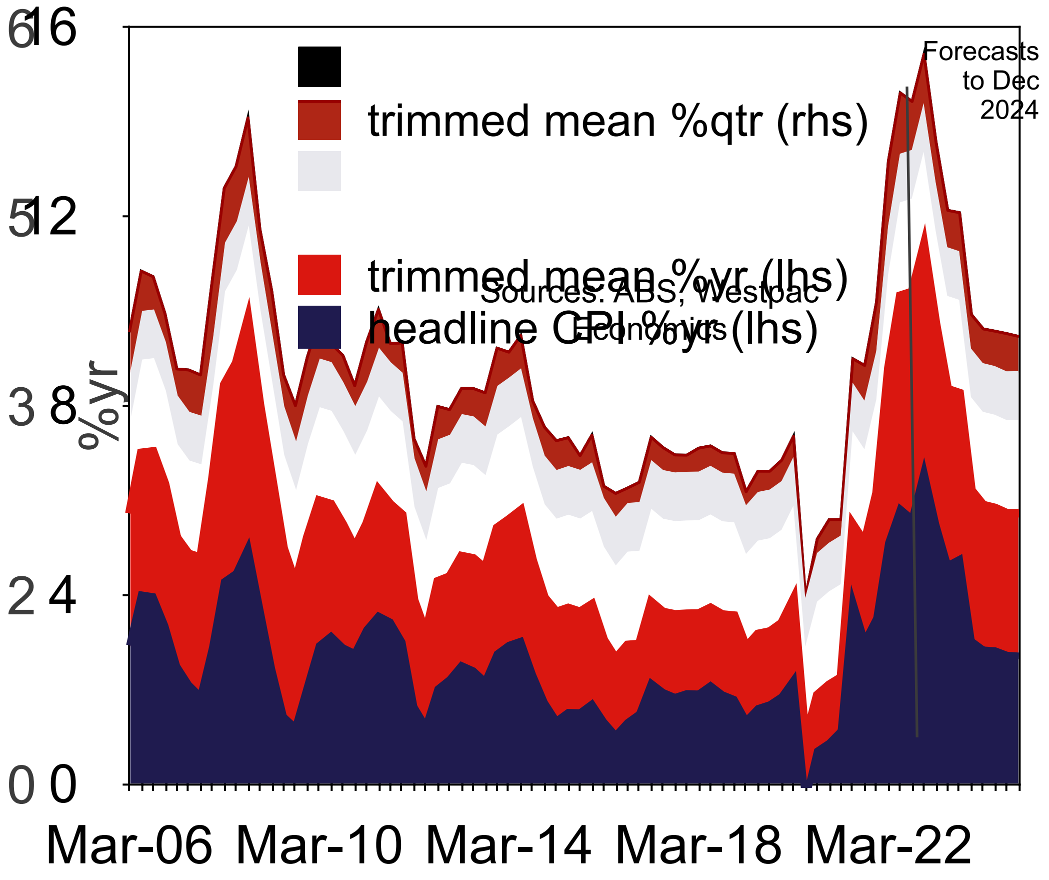


Core inflation to move higher as one-off effects fade

Core inflation to peak ahead of wages

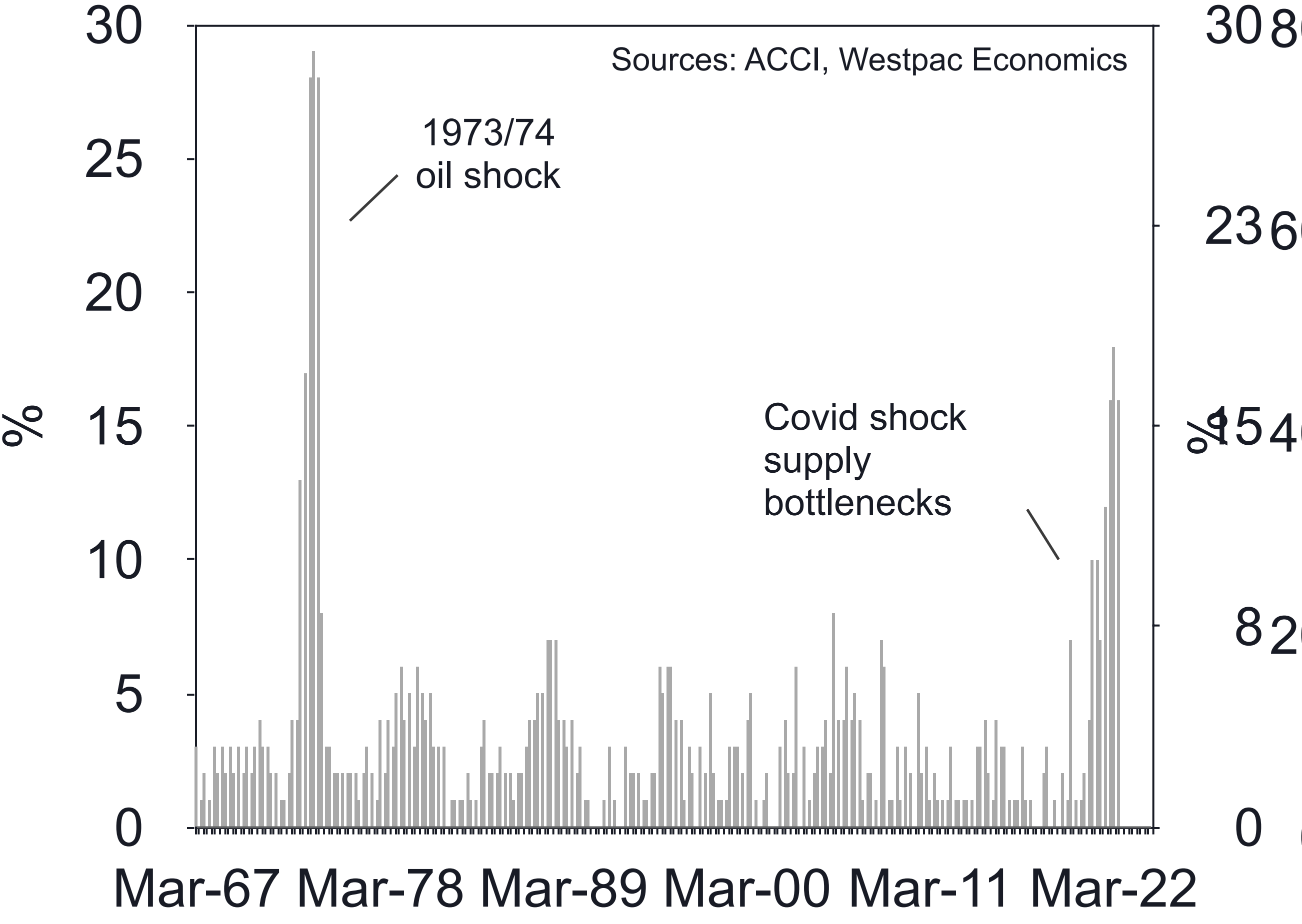


Headline & core inflation forecasts

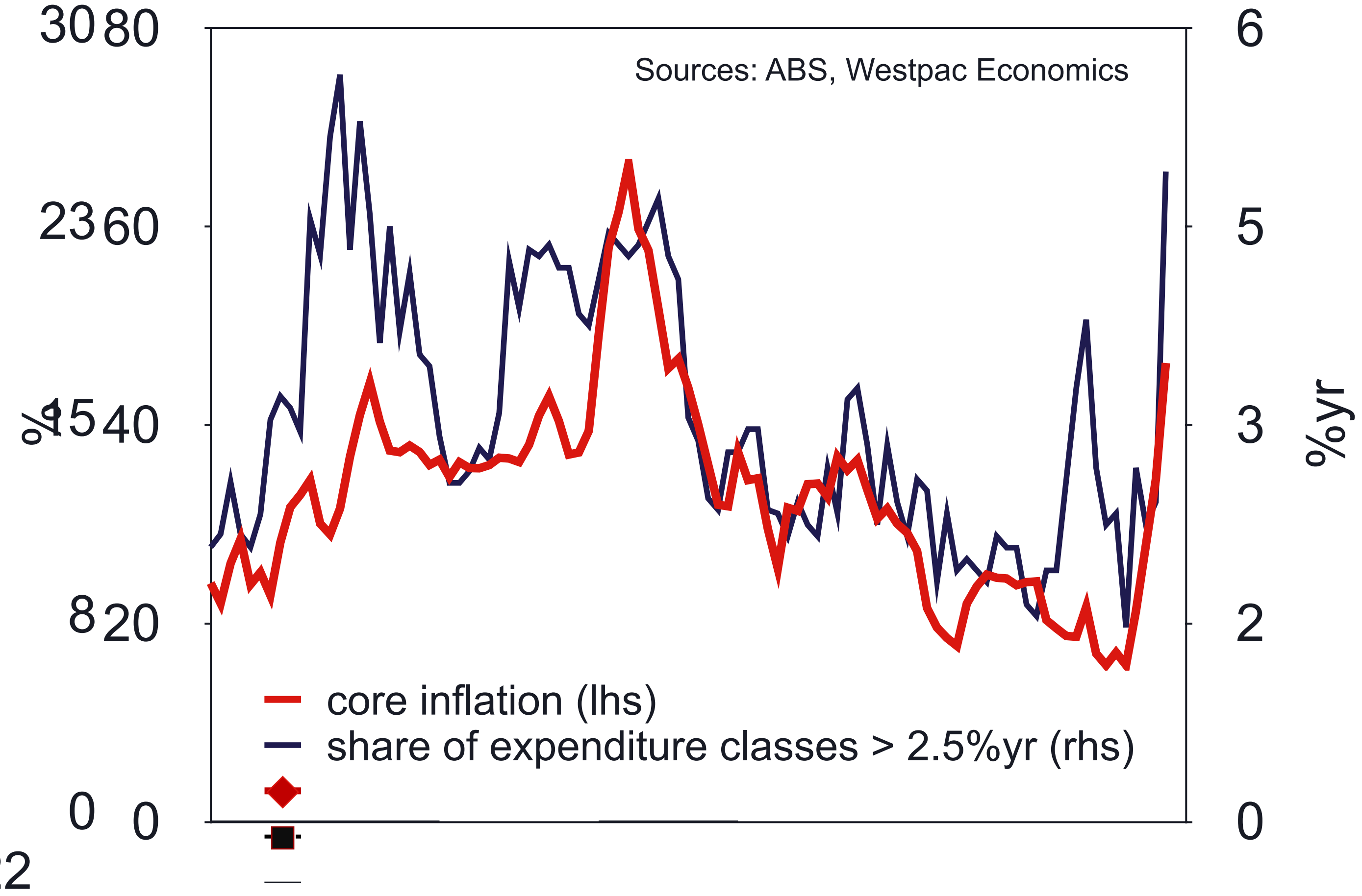


Covid biggest supply shock since 1970's

Biggest "materials" constraint since 1974 oil shock

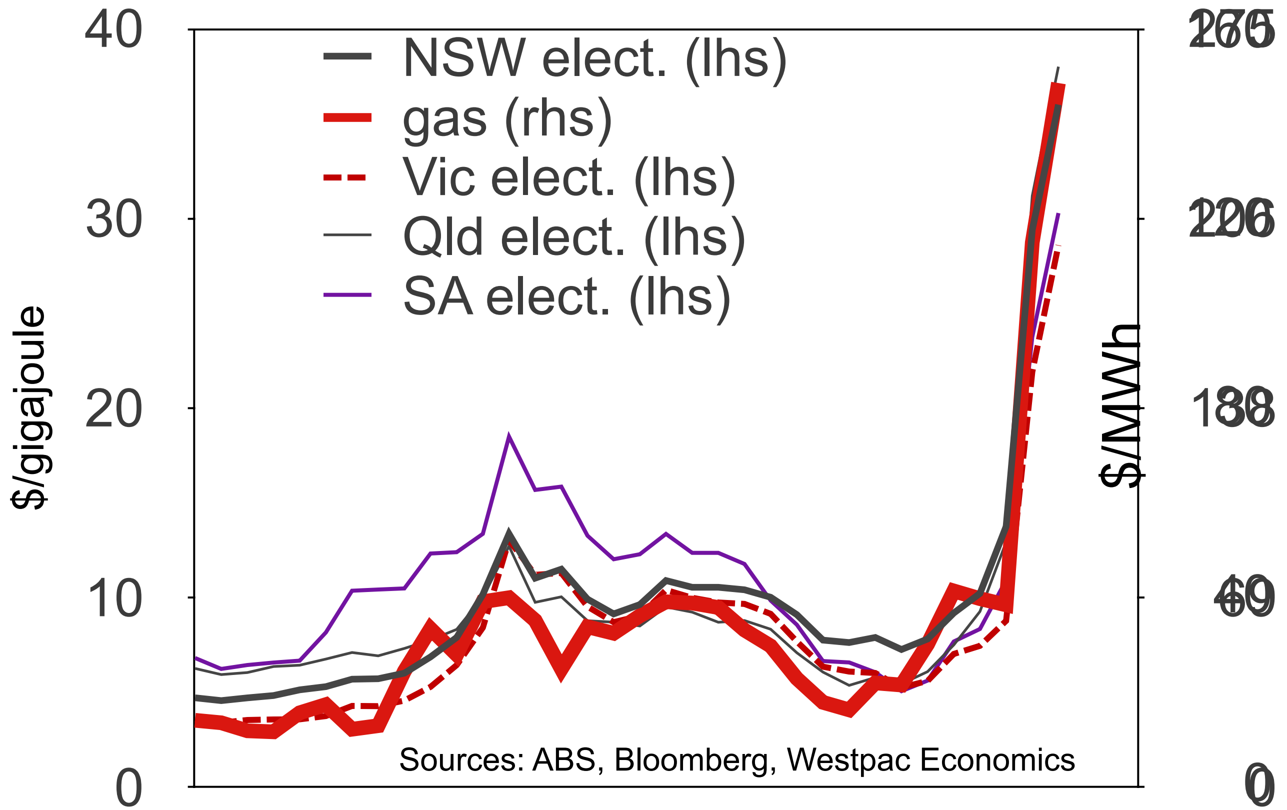


Inflationary pressures are broadening

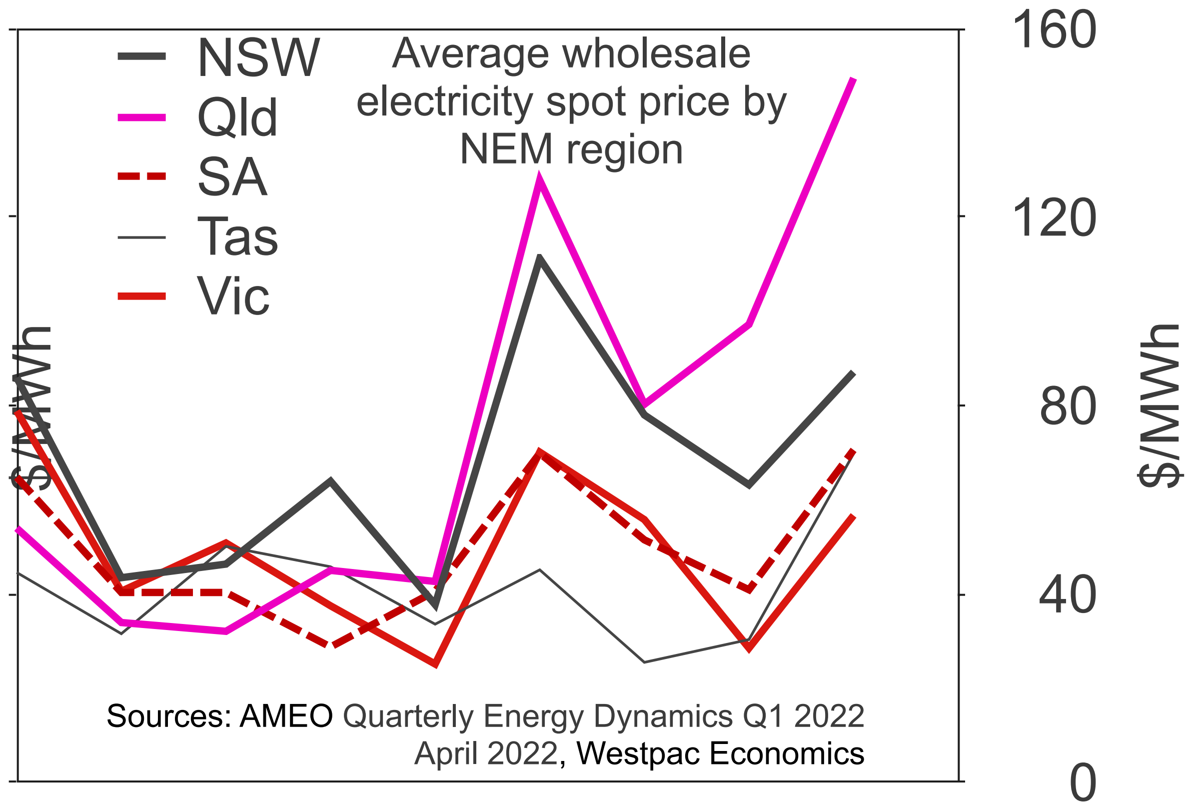


Gas sets marginal power prices but regional issues matter

Spot electricity futures vs gas

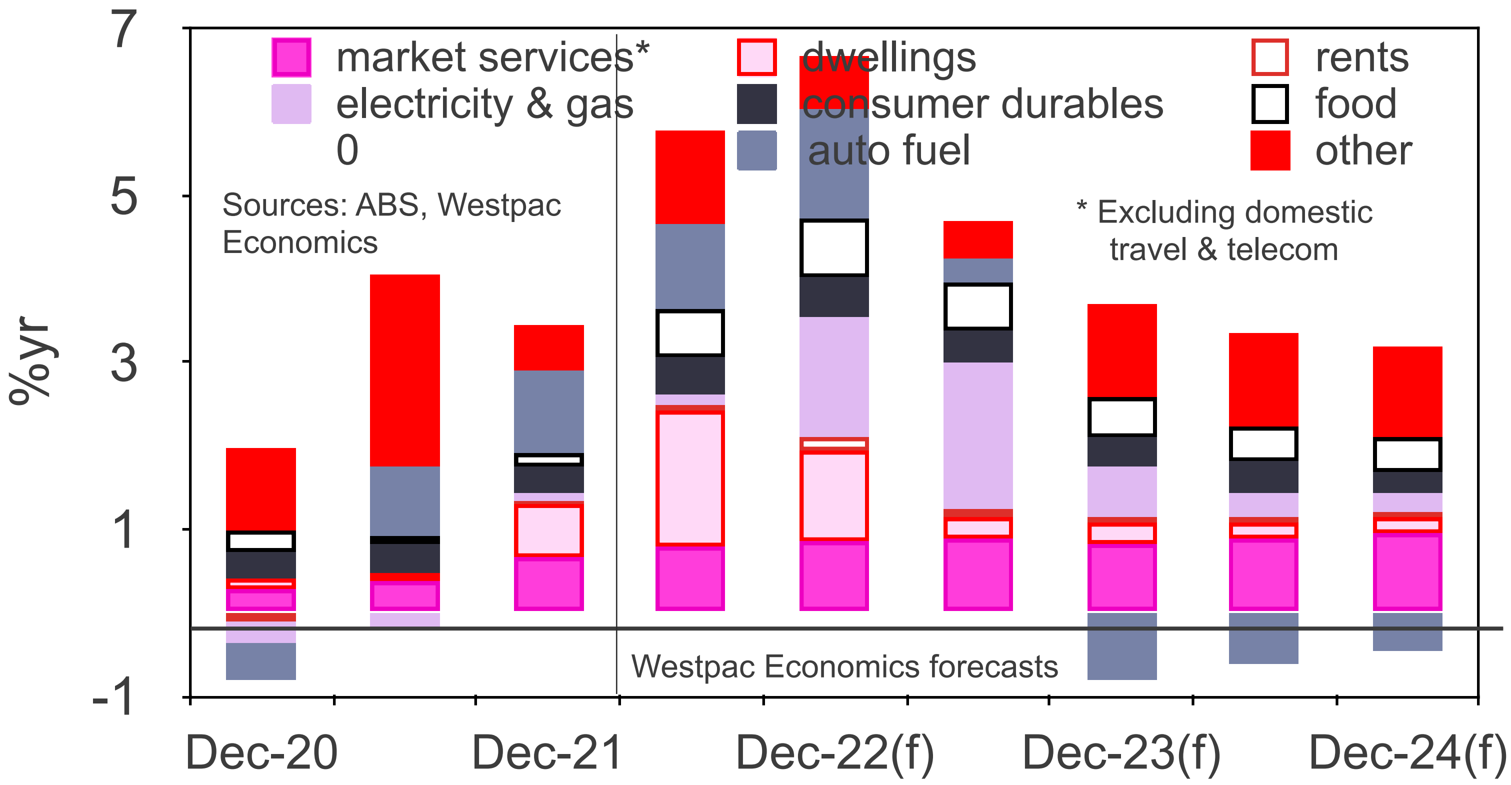


Regional power prices



Inflation turning more fundamental

Dwellings fade, fuel turns negative as market services lift

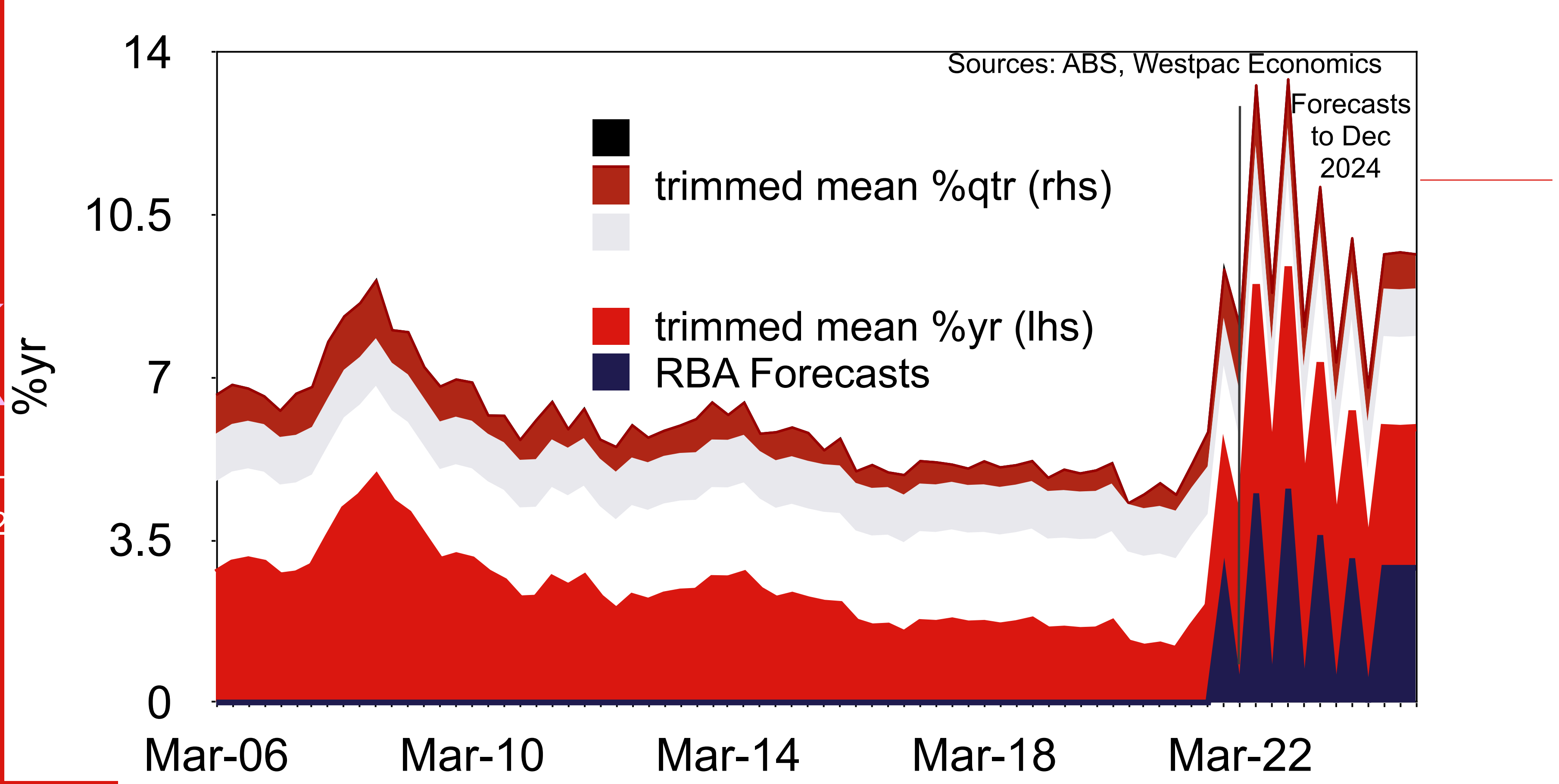


- We have adjusted dwelling price forecasts to account for a larger than expected rise in the underlying series before grants, ongoing cost pressure in construction plus a boost from the expiration of grants.
- For June we have a 4.6% rise in dwelling prices made up of 1.8ppt from the ending of the grants and 2.8% from underlying gains. There is some upside to risk from construction costs.
- The 22 cent reduction in the fuel excise in June, to be reversed in December as are the various state power offsets which will be a negative in Q3.
- Most importantly is the broadening inflationary pressures that are expected to continue through to the end of this year.
- Q1 1.4% rise in the trimmed mean should be the peak in the quarterly pace of core inflation to be followed by 1.0%qtr prints to year end with the annual pace peaking at 4.8%yr in September 2022.
- Headline CPI moderates to a still solid 1.5% rise in June, then 0.6% rise in September (due to power rebates) and a 2.2% rise in December
- The annual pace peaking at 6.6% before moderating to 3.0%yr by end 2023.

Westpac vs. RBA core inflation forecasts

Peak

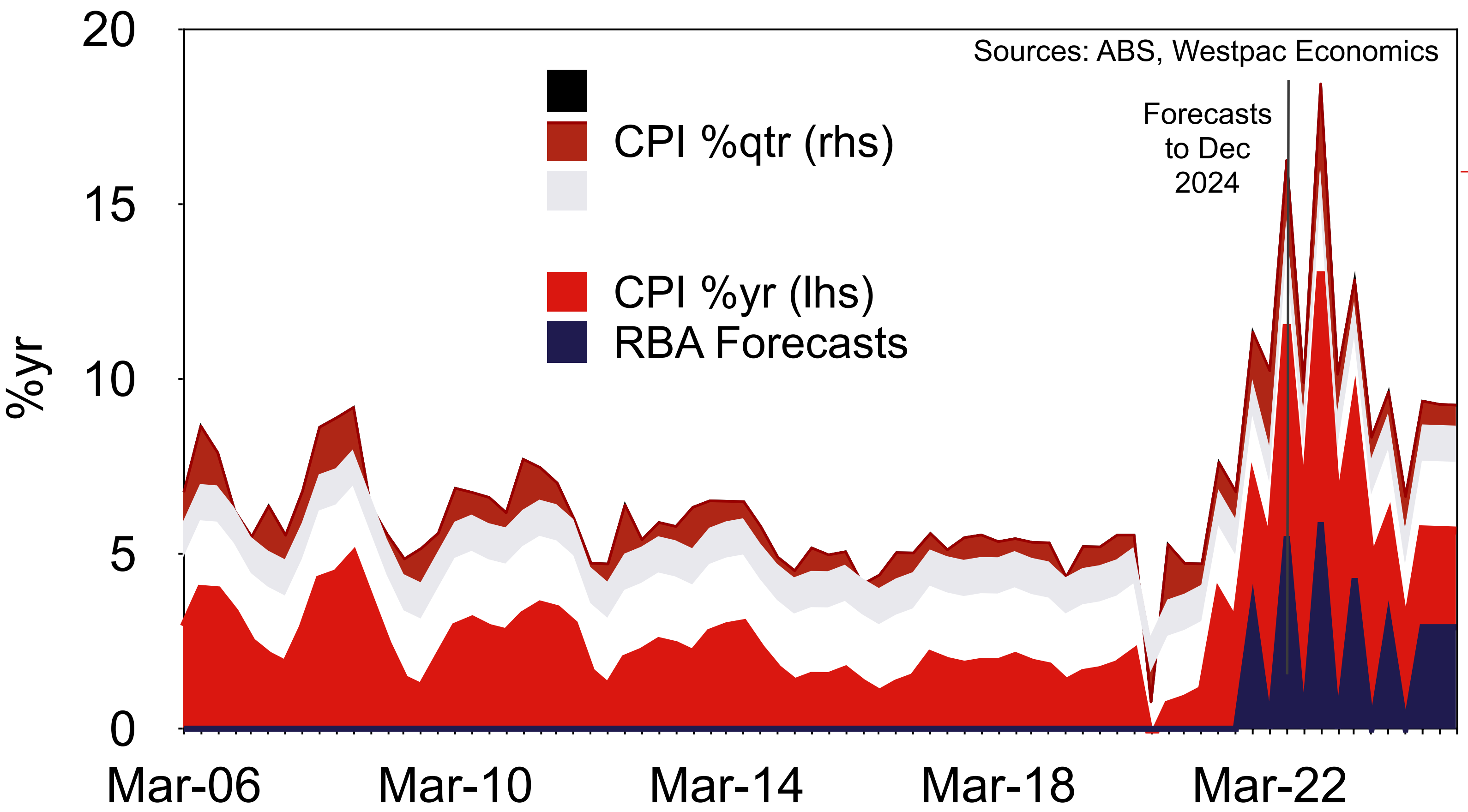
Core inflation to peak in late 2
or early 2023



Westpac vs. RBA CPI forecasts

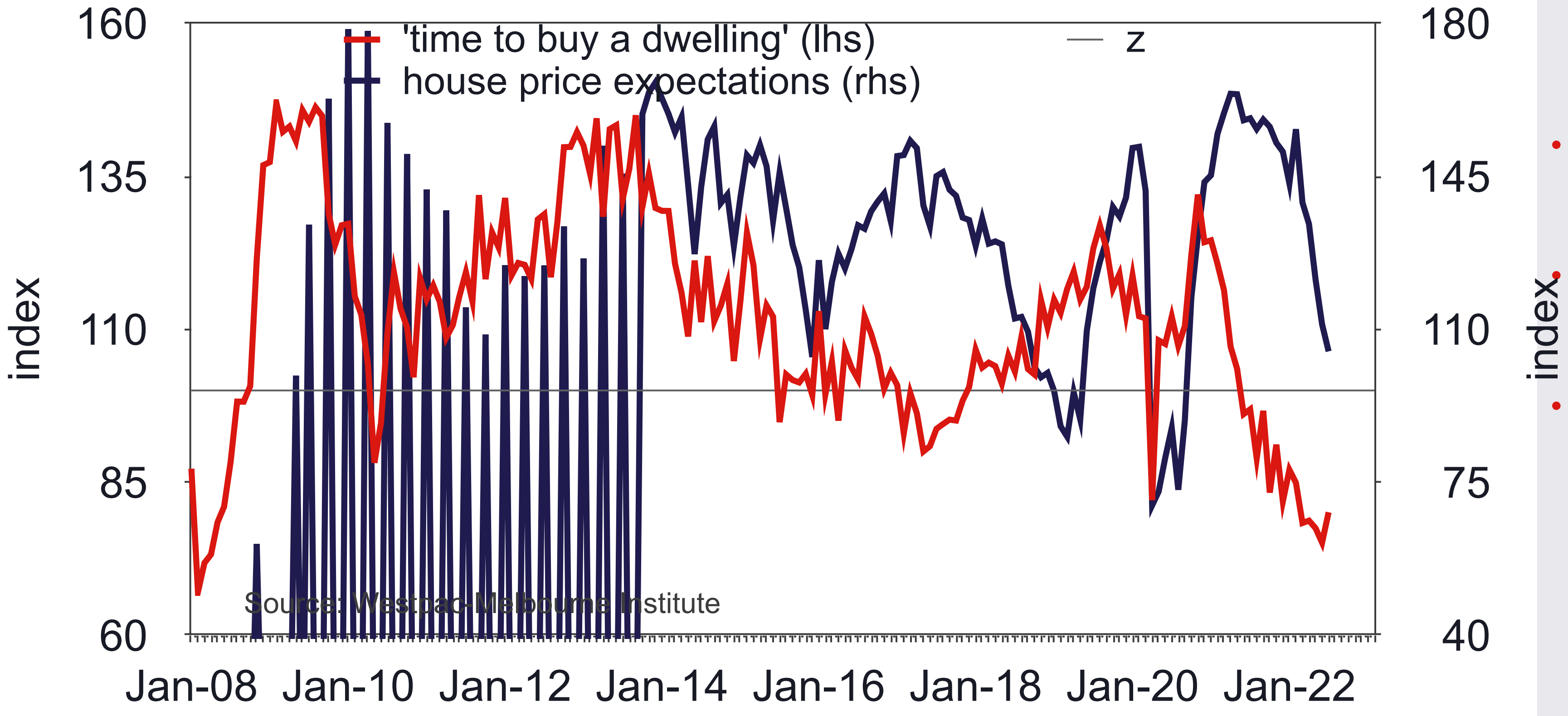
Crude

The decline in crude oil prices is critical to the moderation in headline inflation.



Housing consumer sentiment: clear signals

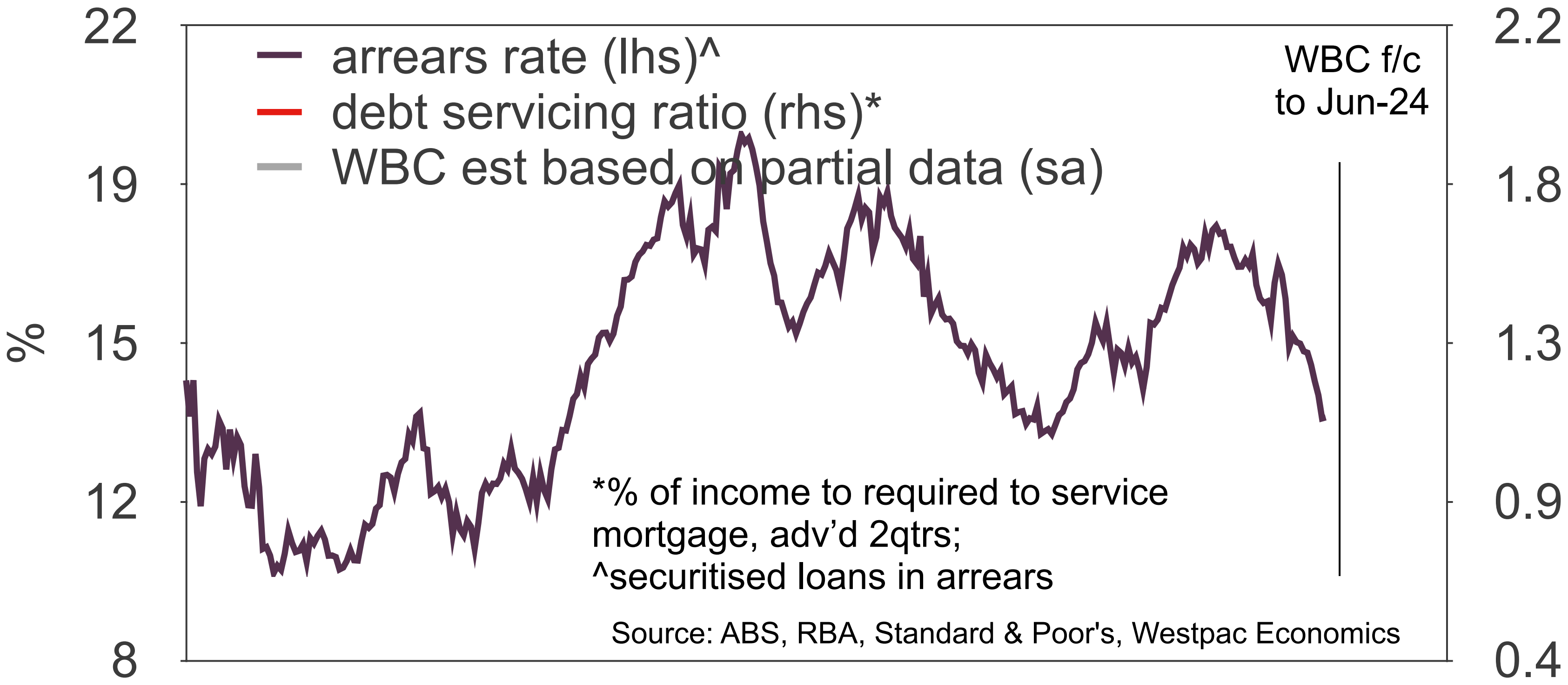
Time to buy may have found a base but yet to correct.



- Time to buy is closely linked to affordability as it is seen as a response is this a good time to buy a house to live in.
- History points to stronger house price expectations driving lower time to buy a dwelling.
- Both pointing to more weakness to come before we see a turn around.
- It appears that price expectations have to fall further before we will see an improvement in time to buy.

Household debt servicing, clear link to arrears

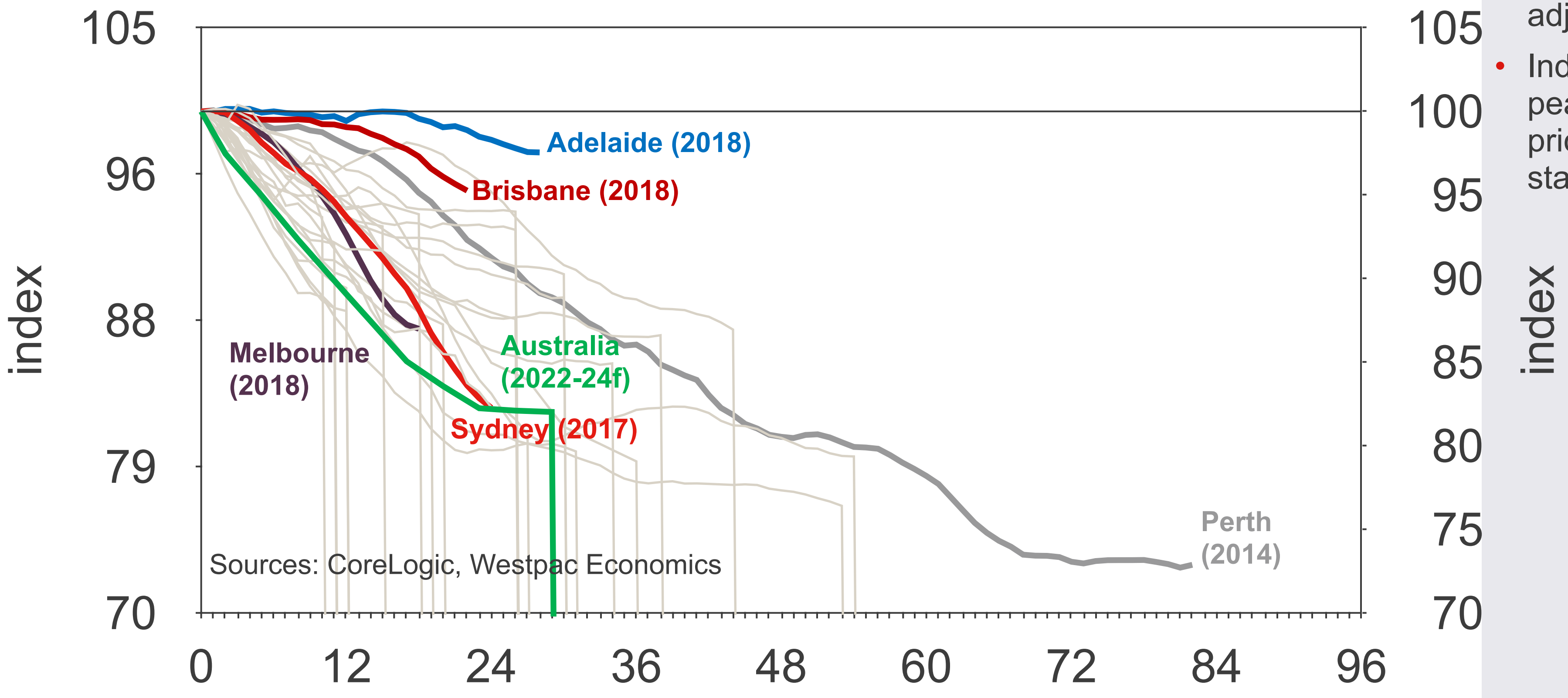
As debt servicing costs rise so too does arrears



- Increased mortgage repayment stress to become apparent by early 2023.
- Higher debt levels increases the sensitivity of households to rising interest rates.
- This is a key reason we see a relatively low peak in the RBA cash rate.

Dwelling price corrections

History of house price corrections; Perth had deepest and longest



- All price corrections since 1980, adjusted for inflation;
- Indexes based at 100 at price peak, coloured series show latest price correction, figures indicate starting year

Conclusion

- **While seasonal conditions can't get much better agriculture is set to face global and domestic constraints and challenges. Farmers continue to more with less.**
- Global inflation surge a major test for central banks – all now tightening aggressively.
- Fed facing biggest inflation challenge, running the gauntlet of a 'growth recession' but will pause by year end, inflation key.
- Near term energy crisis is likely to be sustained as supply responses is more mute than usual.
- Material and labour shortages at extreme levels – not seen since 70's; should ease by 2024.
- Risks are for "slowflation" rather than stagflation.
- Unemployment to fall to 3.2% in 2022 but start rising later in 2023. Wages growth will lift and while Wage Price Index is slow moving it will hit 4%yr; other measures more timely.
- RBA has an aggressive path with a powerful tool and a flexible mandate – cash rate to peak at 2.6%.
- High household debt and interest rate sensitivity will be key to constraining RBA tightening.
- With a tight labour market inflation reduction relies on slowing interest sensitive sectors – housing; consumer spending; construction; house prices.
- Housing stretched – supply; affordability; falling prices in 2023 and 2024.
- AUD to reach USD0.80 in 2023 when global risk abates.

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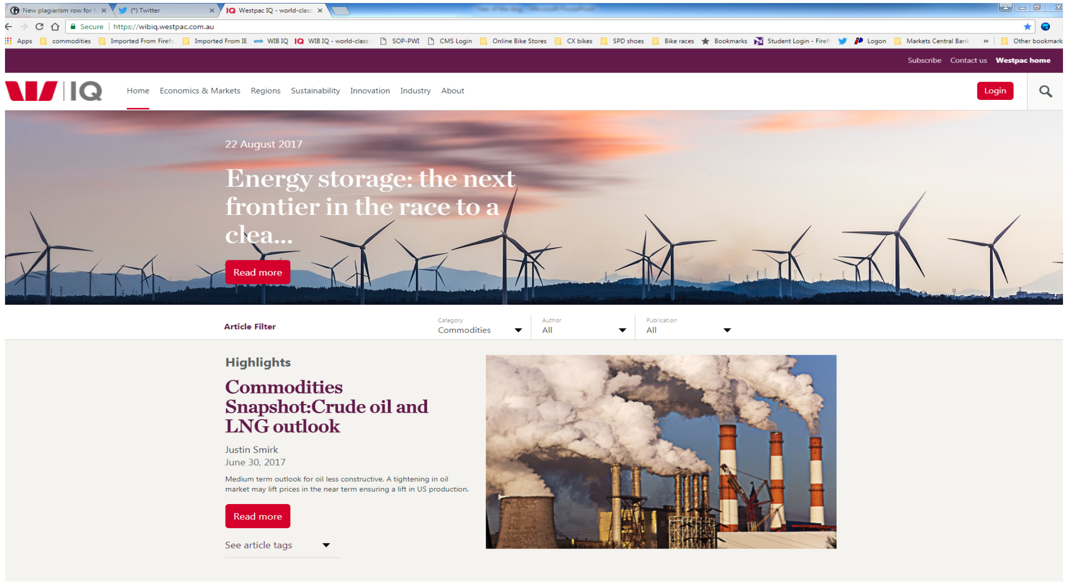

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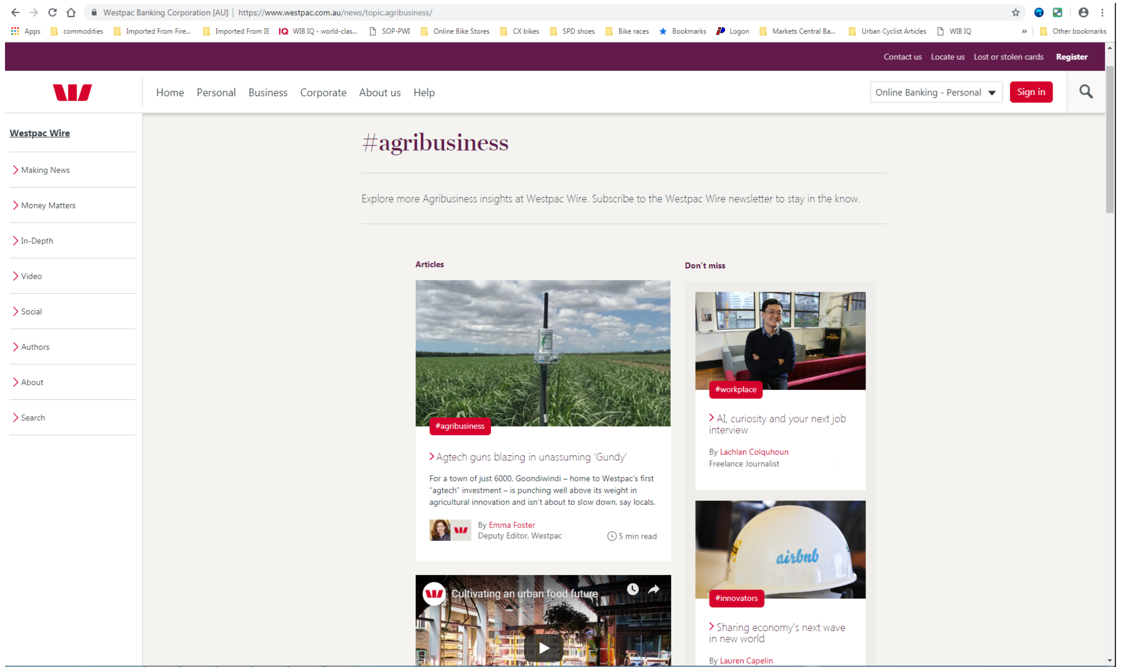

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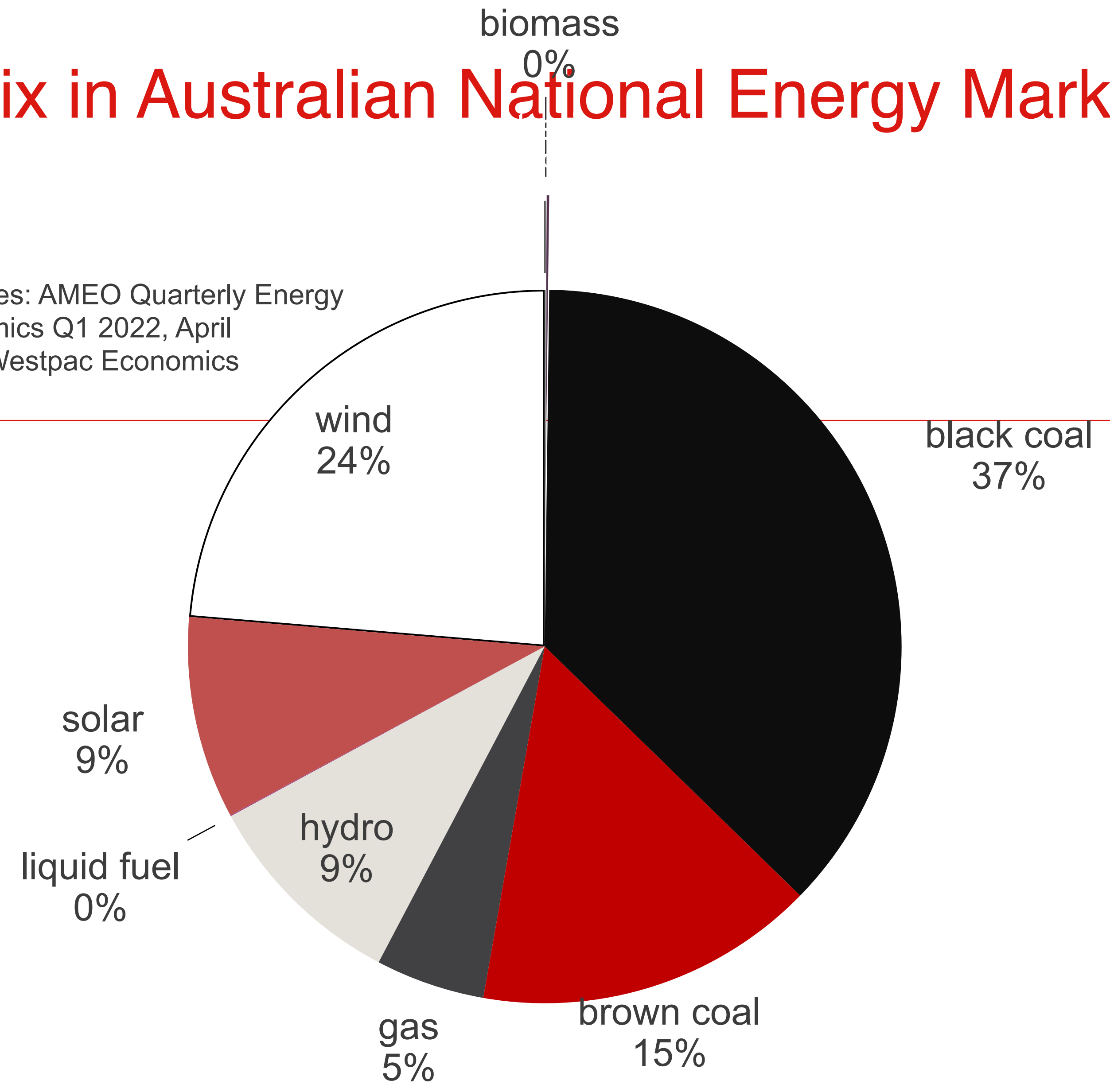
Gas

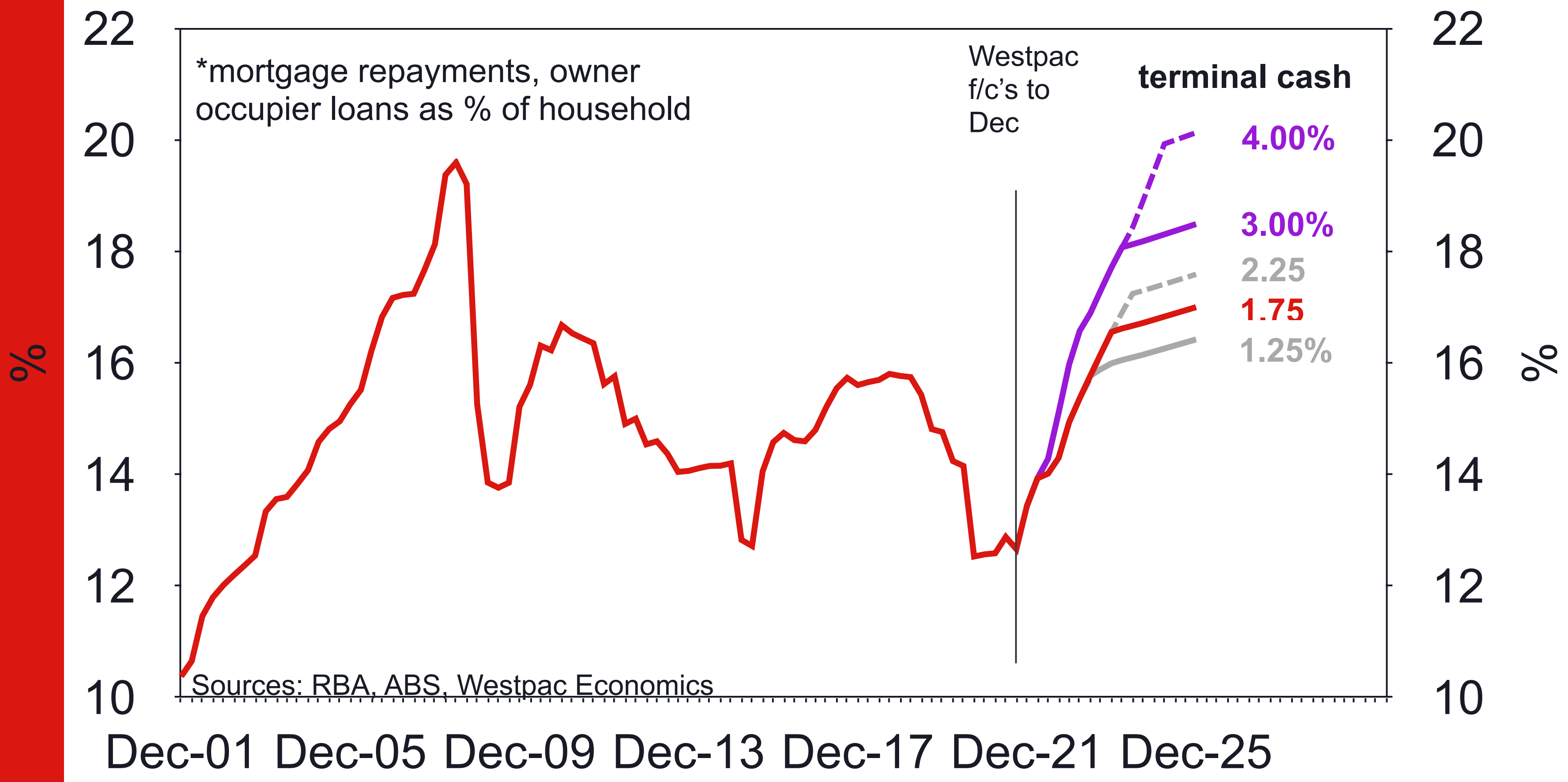
Gas may only be 5% of generation but as the marginal producer, mostly used during peak requirements, it is the price setting fuel.

Fuel mix in Australian National Energy Market



Sources: AMEO Quarterly Energy Dynamics Q1 2022, April 2022Westpac Economics

Australia's Debt servicing ratio to limit RBA



Limit

With elevated household debt levels interest rates have much larger bite in regards to household activity than they have in the past.

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