

WESTPAC WEEKLY ECONOMIC COMMENTARY

It won't happen overnight...

28 November 2022



Kōwhai

Westpac Economics Team

✉ economics@westpac.co.nz

🌐 westpac.co.nz/economics



The Reserve Bank delivered a jumbo sized 75 basis point rise in the Official Cash Rate at its November meeting. The central bank also signalled that the cash rate is likely to rise much higher in the months ahead. We have revised up our forecast for the OCR and now expect a peak of 5.50% in early 2023. For New Zealand households, that signals big increases in borrowing costs. And as those higher interest rates ripple through the economy, we're likely to see growth slowing and unemployment rising.

We have revised our forecast for the Official Cash Rate higher. We now expect a 75 basis point rise in February, and a further 50 basis point rise in April (previously we had expected increases of 50bp and 25bp respectively at those meetings). Those increases would take the OCR to a peak of 5.50% – its highest level since 2008.

Behind that change in our OCR forecast has been ongoing strength in inflation, and a related hawkish lurch from the RBNZ. The central bank delivered a 75 basis point rise in the Official Cash Rate at its November policy meeting. That was the largest ever increase in a single meeting, and it follows a series of large increases in the cash rate over the past year. In fact, the cash rate has now risen by a total of 400 basis points since the tightening cycle began in October last year.

And the RBNZ isn't slowing down. It has signalled that further large increases in the cash rate are coming in short order. From here, the central bank is projecting the cash rate to peak at 5.50%. That's a significant upgrade from the peak of 4.1% they had expected back in August.

Prices are charging higher in nearly every corner of the economy, with the Consumers Price Index rising by 7.2% in the year to September. That was a much larger increase than the Reserve Bank had expected. Importantly, the drivers of inflation have changed over time. Price rises were initially related to supply disruptions and increases in import costs in the wake of the pandemic. However, it's domestic factors that are now driving much of the strength in inflation that we're seeing. That includes the strength of domestic demand. It also includes the tightly stretched labour market, with wage costs rising rapidly as businesses have struggled to attract and retain workers.

Crucially for the RBNZ, households and businesses increasingly expect that inflation will remain elevated despite the rise in interest rates. And that is a big worry for the central bank. Expectations, especially over longer horizons, are a key influence on how businesses adjust prices and wages, and their recent rise means that the current inflation cycle could be even more protracted. Indeed, we are already seeing signs of a wage-price spiral emerging. Average hourly earnings rose by 7.4% over the past year with the very low level of

unemployment giving workers greater bargaining power. And the strength of activity means that businesses have been willing to pay (and pass on) those higher labour costs.

Interest rate increases to date have started to weigh on domestic activity. That's been seen most clearly in the housing market, with sales dropping to low levels and prices down an average of 12% from their peak in November 2021. Nevertheless, overall economic activity remains elevated. In fact, the latest retail spending figures have shown that households are not winding back their spending despite mounting financial pressures. Instead, nominal spending levels were up another 2.5% in the three months to September. In addition, core inflation measures (which track the underlying trend in prices) have continued to push higher despite rate increases over the past year.

To get the inflation genie back in the bottle, it's clear that demand needs to soften. In fact, the RBNZ is forecasting that a recession will be needed, and is projecting falls in economic activity from mid-2023 to early 2024, along with a related rise in unemployment.

But we think a note of caution is needed here. Although inflation has been resilient to interest rate increases thus far, there should be no mistake – monetary policy is still effective. However, it takes time for interest rate changes to affect demand and inflation. To borrow a phrase, it won't happen overnight, but it will happen.

A key reason for that is because the vast majority of New Zealand mortgages are on fixed interest rates, which has shielded them from interest rate increases to date. Many borrowers are still on the very low rates that were on offer during the early stages of the pandemic.

That picture will change dramatically over the coming year. Over the next 12 months, more than half of mortgages will come up for repricing, and many borrowers will face interest rate rises of 2% or more. That will certainly pull down spending and employment. And it could also see the current strength in domestic inflation dissipate more quickly than the RBNZ expects.

Consistent with that, we now expect OCR cuts to begin in early 2024, six months earlier than we did previously. Those rate cuts are both earlier and faster than what the RBNZ is projecting.

Satish Ranchhod, Senior Economist

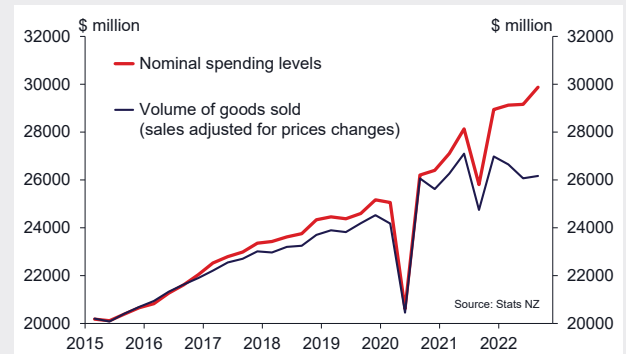
+64 9 336 5668

satish.ranchhod@westpac.co.nz

Chart of the week

Despite the large increases in prices and interest rates over the past year, households have not been reining in their spending. In fact, nominal spending levels rose 2.5% in the September quarter alone. However, while households are splashing out more cash, the actual amount of goods we've been purchasing hasn't really been rising. Taking a look back over the past couple of years, the volume of goods that households are purchasing has actually remained steady since early 2021. In essence, the post-Covid splurge in purchases has come to a halt.

Retail spending

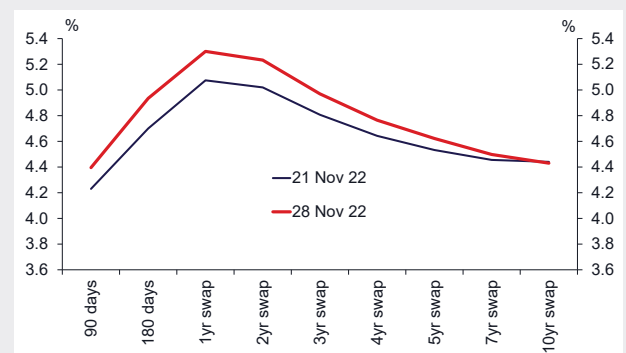


Fixed vs floating for mortgages

We expect the Reserve Bank to lift the Official Cash Rate to 5.5% by early next year, a move that has also been factored into wholesale interest rates. However, we see more scope for reducing the OCR over the longer term as inflation pressures recede.

As a result, we believe that there is value in fixing for terms of up to two years. We would regard fixing for terms longer than this as expensive, but this option may suit those who want more certainty in their repayments.

NZ interest rates



The week ahead

NZ Oct monthly employment indicator

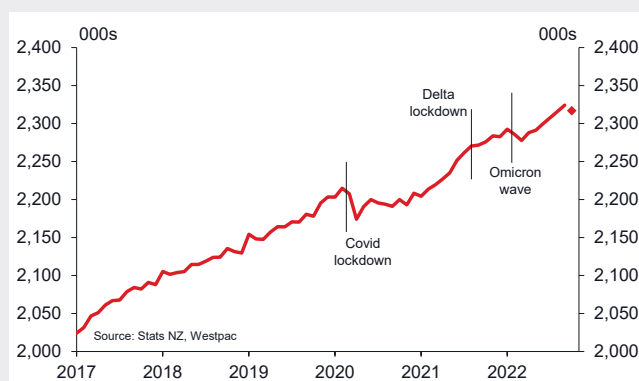
Nov 28, Last: 0.4%, Westpac f/c: -0.3%

The monthly employment indicator reports the number of filled jobs, drawn from income tax data. This measure has recorded some solid gains in previous months, rising by 1% over the September quarter as a whole.

The indicator also highlights that around 40% of the growth in employment over the last year has been among teenagers – one of the few remaining areas where there is scope to bring people into the workforce. However, this is not a viable source of labour for many industries.

The weekly snapshots of the data suggest a modest easing in jobs in October, although that's in the context of a strong run of growth recently. Employment growth is still outstripping growth in the labour force on an annual basis.

NZ monthly filled jobs



NZ Oct residential building consents

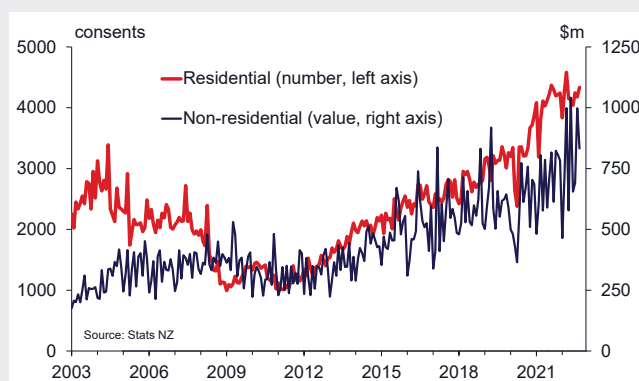
Nov 30, Last: +3.8%, Westpac f/c: -5.0%

Dwelling consent issuance rose by 3.8% in September. That stronger than expected increase was mainly due to the large number of apartment consents issued over the month. Looking at the underlying trend in consent numbers, issuance remains around record highs supported by the large number of medium density developments (like apartments and townhouses).

We are forecasting a 5% decline in consent numbers in October. That's mainly due to an easing in the 'lumpy' apartments category after last month's surge. But even with that decline, the level of consents is expected to remain elevated.

Looking further ahead, we expect that less favourable financial conditions for both purchasers and developers will see consent issuance trend down over the year ahead.

NZ building consents



NZ Nov ANZBO business confidence

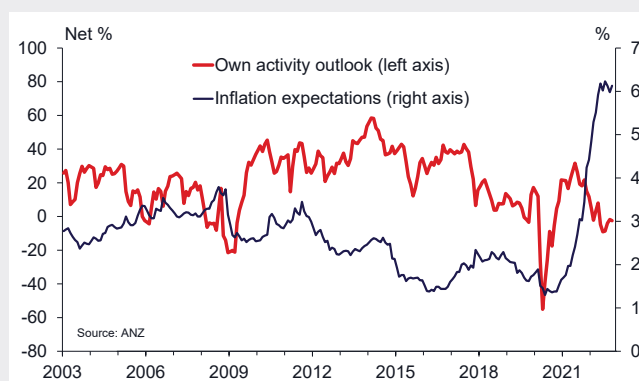
Nov 30, Last: -42.7

Business confidence dropped further into pessimistic territory in October. Although activity levels in the economy have held up, businesses are grappling with a range of challenges, including rising interest costs and ongoing shortages of staff. At the same time, operating costs have been charging higher, squeezing margins for many firms.

Confidence is set to remain low in the November survey. Labour market pressures and operating costs have continued to push higher. There is also growing concern about the outlook for activity as interest rates continue to rise.

Despite softening in recent months, the survey's price and cost gauges have remained elevated. We expect that pattern will be repeated in the November survey, consistent with our forecast for only a gradual easing in the current high rate of inflation.

NZ business confidence



The week ahead

Aus Oct retail trade

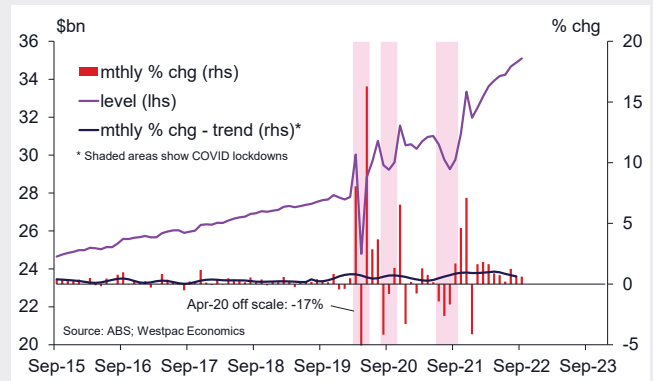
Nov 28, Last: 0.6%, WBC f/c: 0.2%
Mkt f/c: 0.5%, Range: 0.0% to 0.9%

Retail sales posted 0.6% gains in Sep and Aug, most of which looks to have been on higher prices with underlying volumes about flat. Rising interest rates may be having some small dampening effect as well with the Sep month showing notable declines in the value of sales for household goods and department stores despite likely higher prices.

The Oct update should start to show a clearer impact from interest rate rises although available evidence suggests this continues to be mild. Our Westpac Card Tracker Index held up reasonably well through the month, albeit with retail components showing some signs of softening. Retail responses to private sector business surveys were also a touch softer but still very positive overall.

On balance, we expect nominal sales to post 0.2% gain in the month, implying a small outright decline in underlying sales volumes.

Aus monthly retail sales



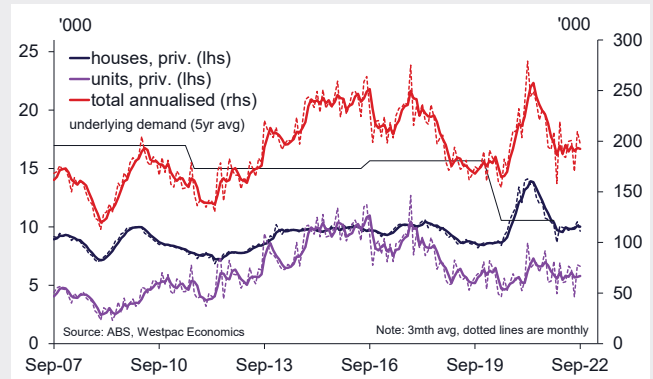
Aus Oct dwelling approvals

Nov 30, Last: -5.8%, WBC f/c: -5.0%
Mkt f/c: -2.0%, Range: -6.0% to 3.0%

Dwelling approvals posted a 5.8% decline in Sep, following a string of upside surprises through most of 2022. The detail suggests approvals are starting to reflect the numerous headwinds at play – including sharp rises in interest rates and building costs, and the wider housing market downturn – with a notable decline in private detached houses.

October is likely to show a clearer cyclical shift. We expect approvals to post another 5% decline with risks again to the downside.

Aus dwelling approvals



Aus Oct Monthly CPI Indicator %/yr

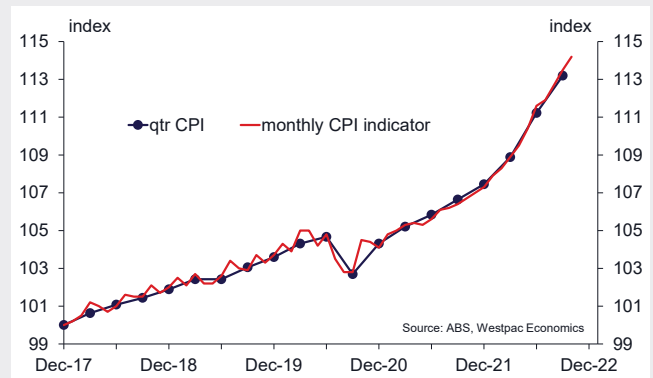
Nov 30, Last: 7.3%, WBC f/c: 7.3%
Mkt f/c: 7.6%, Range: 7.1% to 8.3%

The monthly indicator has proven to be reliable leading indicator for the quarterly CPI. Through the September quarter the monthly indicator lifted 0.6% in July, 0.2% in August and 0.6% in September taking the annual pace from 6.7% at June to 7.3% in September. The quarterly CPI was up 7.3% in the year to September.

Considering the partial indicators we have, and making reference to the timing of the surveys for the various components of the CPI, Westpac is forecasting the Monthly Indicator to lift 0.6% in October holding the annual rate flat at 7.3%. We are nearing the peak in the annual pace of inflation but given the timing of the various surveys we don't expect to see it until December.

From there we expect to moderate as we move through 2023 with the usual monthly volatility.

Aus CPI monthly indicator vs. qtr CPI



The week ahead

Aus Q3 construction work

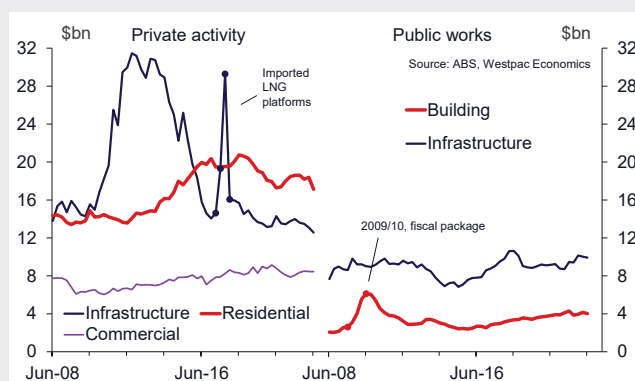
Nov 30, Last: -3.8%, WBC f/c: 2.0%
Mkt f/c: 2.0%, Range: -1.8% to 5.0%

Construction work contracted in 3 of the past 4 quarters, including a 3.8% drop in June, despite a sizeable pipeline of work. Inclement weather associated with the La Nina has caused significant delays, compounded by labour and material shortages.

For the September quarter, given the ongoing headwinds, we anticipate only a partial rebound from that sizeable 3.8% decline in June – at a forecast +2%, which would still leave the level of activity below that a year ago (-1.3%) and below that in mid-2021 (-2.4%).

That June quarter fall included declines across each of the states, as well as declines across segments – notable was a sharp drop in private detached home building, of -13.9%. If there is confirmation of a September quarter partial recovery in work, we envisage that it will be relatively broadly based across the segments with gains in housing, business construction and public works.

Aus construction work by segment



Aus Oct private sector credit

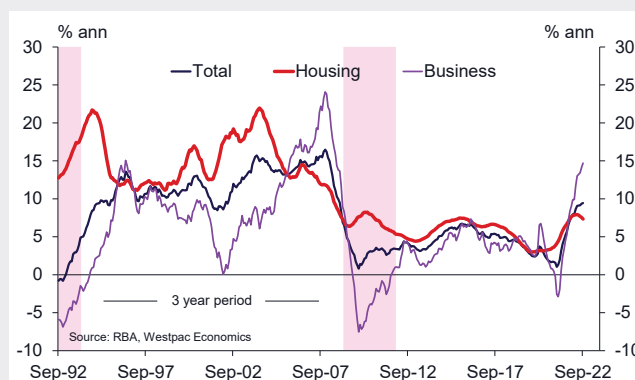
Nov 30, Last: 0.7%, WBC f/c: 0.6%
Mkt f/c: 0.6%, Range: 0.5% to 0.8%

There is an emerging gradual slowing in the monthly pace of credit growth – as rapidly rising interest rates reduce the borrowing capacity of households.

This comes after a period of strong growth, as households and businesses responded to earlier policy stimulus. Over the year to September, credit grew by 9.4%, the fastest annual pace since 2008. The September outcome included 7.3%/yr for residential, flat for personal and 14.7%/yr for business lending.

Monthly credit growth has eased from 0.9% throughout the June quarter to 0.8% for July and August, then a 0.7% result for September. We anticipate that credit growth will edge down to 0.6% in October, led by housing, as well as some easing in the recent rapid pace of business lending. New lending for housing is in retreat, contracting by 24% over the past 8 months to September, including a 22% fall over the past 4 months.

Aus annual credit growth



Aus Nov CoreLogic home value index

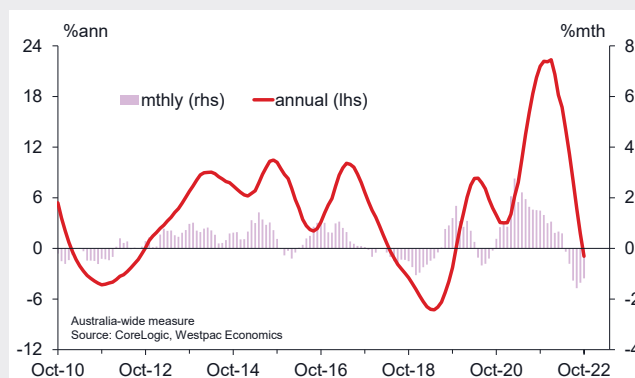
Dec 1, Last: -1.1%, WBC f/c: -1.0%

The housing market correction that began in May ran at a rapid pace through the second half of 2022. Prices fell 1.1% in October, a slight moderation on the 1.4-1.6%/mth declines in Q3 but still a rapid rate overall.

November is set to see a repeat with the daily index pointing to another 1.0% decline for the month. This will take annual growth to -5.4%/yr with a 7.5% fall since April.

While the slightly milder monthly pace and marginal improvement in auction markets suggest the correction is moderating, stabilisation still looks a long way off, especially with more rate rises on the way.

Aus dwelling prices

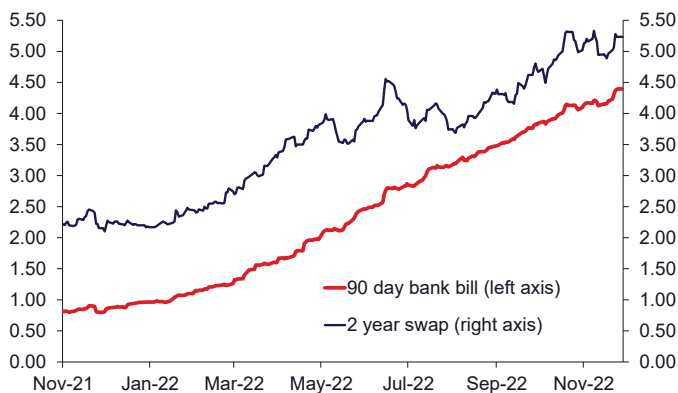


New Zealand forecasts

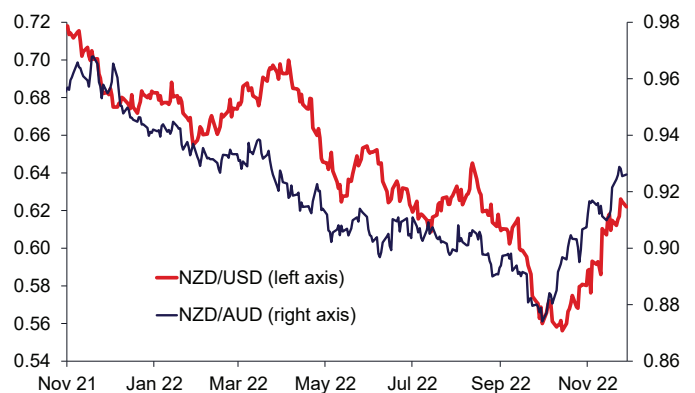
Economic forecasts	Quarterly				Annual			
	2022		2023		2020	2021	2022f	2023f
% change	Jun (a)	Sep	Dec	Mar				
GDP (Production)	1.7	0.4	0.4	0.9	-2.1	5.5	2.2	1.9
Employment	0.0	1.3	0.1	0.1	0.6	3.3	1.3	0.5
Unemployment Rate % s.a.	3.3	3.3	3.3	3.4	4.9	3.2	3.3	3.8
CPI	1.7	2.2	0.8	1.2	1.4	5.9	6.5	3.9
Current Account Balance % of GDP	-7.7	-8.0	-7.5	-6.4	-0.8	-6.0	-7.5	-4.7

Financial forecasts	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24
Cash	4.25	5.00	5.50	5.50	5.50	5.25	4.75
90 Day bill	4.60	5.50	5.60	5.60	5.50	5.05	4.55
2 Year Swap	5.30	5.20	5.00	4.80	4.50	4.20	3.90
5 Year Swap	4.70	4.60	4.50	4.35	4.20	4.05	3.90
10 Year Bond	4.30	4.30	4.20	4.10	4.00	3.80	3.70
NZD/USD	0.63	0.64	0.65	0.66	0.67	0.68	0.68
NZD/AUD	0.93	0.93	0.93	0.92	0.91	0.90	0.89
NZD/JPY	86.9	87.0	87.1	87.1	87.1	86.4	85.1
NZD/EUR	0.61	0.61	0.61	0.61	0.60	0.60	0.60
NZD/GBP	0.53	0.53	0.53	0.54	0.54	0.54	0.54
TWI	73.5	73.6	73.4	73.1	73.0	72.8	72.2

2 year swap and 90 day bank bills



NZD/USD and NZD/AUD



NZ interest rates as at market open on 28 November 2022

Interest rates	Current	Two weeks ago	One month ago
Cash	4.25%	3.50%	3.50%
30 Days	4.32%	4.02%	3.79%
60 Days	4.36%	4.08%	3.95%
90 Days	4.40%	4.15%	4.10%
2 Year Swap	5.23%	4.95%	5.02%
5 Year Swap	4.62%	4.62%	4.70%

NZ foreign currency mid-rates as at 28 November 2022

Exchange rates	Current	Two weeks ago	One month ago
NZD/USD	0.6220	0.6071	0.5802
NZD/EUR	0.5990	0.5898	0.5842
NZD/GBP	0.5150	0.5162	0.5027
NZD/JPY	86.60	85.34	86.24
NZD/AUD	0.9261	0.9099	0.9074
TWI	72.62	70.82	69.81

Data calendar

		Last	Market median	Westpac forecast	Risk/Comment
Mon 28					
NZ	Oct employment indicators	0.4%	-	-0.3%	Easing after some solid gains in recent months.
Aus	RBA Governor Lowe	-	-	-	Appearing before Senate Economics Committee.
	Oct retail sales	0.6%	0.5%	0.2%	Rate rises starting to impact?
UK	Nov Nationwide house prices	-0.9%	-	-	Due this week. Housing market correction clearly deepening.
US	Nov Dallas Fed index	-19.4	-23.0	-	Regional surveys broadly showing weakness.
	Fedspeak	-	-	-	Williams and Bullard.
Tue 29					
Eur	Nov economic confidence	92.5	-	-	Broader economic sentiment continues to deteriorate...
	Nov consumer confidence	-23.9	-	-	... though consumer confidence is consolidating at low levels.
US	Sep FHFA house prices	-0.7%	-1.2%	-	Correction deepening amid broad-based price declines...
	Sep S&P/CS home price index	-1.32%	-1.15%	-	... cumulative rate hikes to date will continue to impact.
	Nov consumer confidence index	102.5	100.0	-	Inflation and rates are weighing heavily on households.
Wed 30					
NZ	Oct building permits	3.8%	-	-5.0%	Pullback in medium density consents after last month's surge.
	Nov ANZ business confidence	-42.7	-	-	Activity gauges to remain low, price gauges elevated.
Aus	Oct dwelling approvals	-5.8%	-2.0%	-5.0%	Surprisingly steady through Q3 but set to fall.
	Oct CPI Monthly Indicator %yr	7.3%	7.6%	7.3%	The Monthly Indicator is a reliable leading indicator for...
	Oct CPI MI trimmed mean %yr	5.4%	-	-	... the quarterly CPI. It is yet to show signs of peaking.
	Q3 construction work done	-3.8%	2.0%	2.0%	Only a partial rebound, constrained by ongoing headwinds.
	Oct private sector credit	0.7%	0.6%	0.6%	Emerging gradual slowing as higher interest rates impact.
	RBA Head of Domestic Markets	-	-	-	Kearns speaking at Securitisation conference.
Chn	Nov manufacturing PMI	49.2	49.0	-	Policy initiatives will support mfg and services in time...
	Nov non-manufacturing PMI	48.7	48.0	-	... but virus and global demand risks loom for now.
Eur	Nov CPI %yr	10.7%	-	-	Breadth of inflation pulse of increased concern.
US	Oct wholesale inventories	0.6%	0.5%	-	Unwarranted inventory accrual a risk given end demand.
	Q3 GDP, annualised	2.6%	2.7%	-	Very small revision anticipated in second estimate for Q3.
	Nov Chicago PMI	45.2	47.0	-	Pointing to clear downside risk for business conditions.
	Oct pending home sales	-10.2%	-5.2%	-	Weakness in sales volumes set to persist.
	Oct JOLTS job openings	10717k	10325k	-	Gradually falling from historic peak.
	Federal Reserve Beige book	-	-	-	To provide an update on conditions across the 12 Fed districts.
	Fedspeak	-	-	-	Chair Powell on economy and labour market. Bowman, Cook.
Thu 01					
Aus	Nov CoreLogic home value index	-1.1%	-	-1.0%	Price declines still look firmly entrenched.
	Q3 private new capital expenditure	-0.3%	1.4%	1.6%	Upward trend in equipment, partial rebound in B&S.
Chn	Nov Caixin manufacturing PMI	49.2	48.9	-	Under pressure from virus risks and weakening global demand.
Eur	Nov S&P Global manufacturing PMI	47.3	-	-	Final estimate.
	Oct unemployment rate	6.6%	-	-	Slack will begin to emerge more clearly in 2023.
UK	Nov S&P Global manufacturing PMI	46.2	-	-	Final estimate.
US	Oct personal income	0.4%	0.4%	-	Real incomes remain under pressure from inflation...
	Oct personal spending	0.6%	0.8%	-	... putting consumption at risk of weakness.
	Oct PCE deflator	0.3%	0.4%	-	FOMC is paying close attention to core PCE inflation...
	Oct core PCE deflator	0.5%	0.3%	-	... as they plan to step down the pace of rate hikes.
	Nov S&P Global manufacturing PMI	47.6	-	-	Manufacturing activity clearly remains in a fragile state...
	Nov ISM manufacturing	50.2	49.8	-	... S&P indicating that small/mid-sized firms are under pressure.
	Oct construction spending	0.2%	-0.2%	-	Softening demand clearly weighing on construction.
	Initial jobless claims	240k	-	-	To remain at relatively low levels for now.
	Fedspeak	-	-	-	Logan and Bowman.
Fri 02					
NZ	Q3 terms of trade	-2.4%	-	0.5%	Improved export prices balanced out the rising import bill.
Aus	Oct housing finance	-8.2%	-2.1%	-3.5%	Stabilising turnover suggests a slower pace of decline...
	Oct owner occupier finance	-9.3%	-	-4.5%	... for finance associated with purchase of established...
	Oct investor finance	-6.0%	-	-2.0%	... dwellings but construction-related looks to be down sharply.
	RBA Governor Lowe	-	-	-	Panel participant at Bank of Thailand conference.
US	Nov non-farm payrolls	261k	200k	180k	Payrolls increasingly at odds with other indicators...
	Nov unemployment rate	3.7%	3.7%	3.8%	... but U/E likely to remain little changed in near-term...
	Nov average hourly earnings %mth	0.4%	0.3%	0.3%	... supporting robust wage growth, for now.
	Fedspeak	-	-	-	Barr and Evans.

International forecasts

Economic Forecasts (Calendar Years)	2018	2019	2020	2021	2022f	2023f
Australia						
Real GDP %yr	2.8	2.0	-2.1	4.9	4.2	1.9
CPI inflation %yr	1.8	1.8	0.9	3.5	7.9	4.1
Unemployment rate %	5.0	5.2	6.8	4.7	3.3	4.5
Current account % of GDP	-2.1	0.7	2.4	3.2	1.3	-0.9
United States						
Real GDP %yr	2.9	2.3	-3.4	5.7	1.9	0.4
CPI inflation %yr	2.4	1.9	1.2	5.1	7.1	2.5
Unemployment rate %	3.9	3.7	8.1	5.4	3.7	4.8
Current account % of GDP	-2.3	-2.6	-2.5	-2.4	-2.4	-2.4
Japan						
Real GDP %yr	0.6	-0.4	-4.6	1.7	1.7	1.5
Euro zone						
Real GDP %yr	1.8	1.6	-6.1	5.2	3.2	0.4
United Kingdom						
Real GDP %yr	1.7	1.7	-9.3	7.4	3.6	-0.2
China						
Real GDP %yr	6.8	6.0	2.2	8.1	3.5	6.0
East Asia ex China						
Real GDP %yr	4.5	3.8	-2.3	4.2	4.5	4.4
World						
Real GDP %yr	3.6	2.8	-3.0	6.0	3.2	3.0

Forecasts finalised 4 November 2022

Interest rate forecasts	Latest	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24
Australia								
Cash	2.85	3.10	3.60	3.85	3.85	3.85	3.60	3.35
90 Day BBSW	3.10	3.55	3.97	4.05	4.05	3.97	3.72	3.47
10 Year Bond	3.54	3.80	3.80	3.60	3.40	3.20	3.00	2.90
International								
Fed Funds	3.875	4.375	4.625	4.625	4.625	4.625	4.375	3.875
US 10 Year Bond	3.69	4.00	4.00	3.80	3.60	3.40	3.10	2.90

Exchange rate forecasts	Latest	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24
AUD/USD	0.6767	0.68	0.69	0.70	0.72	0.74	0.75	0.76
USD/JPY	138.68	140	138	136	134	132	130	128
EUR/USD	1.0412	1.04	1.05	1.07	1.09	1.11	1.12	1.13
GBP/USD	1.2103	1.20	1.21	1.22	1.23	1.24	1.25	1.26
USD/CNY	7.1628	7.20	7.00	6.80	6.60	6.50	6.40	6.30
AUD/NZD	1.0810	1.08	1.08	1.08	1.09	1.10	1.11	1.13

Contact the Westpac economics team

Michael Gordon, Acting Chief Economist

+64 9 336 5670

Satish Ranchhod, Senior Economist

+64 9 336 5668

Nathan Penny, Senior Agri Economist

+64 9 348 9114

Paul Clark, Industry Economist

+64 9 336 5656

Any questions email:

economics@westpac.co.nz

Disclaimer

Things you should know

Westpac Institutional Bank is a division of Westpac Banking Corporation ABN 33 007 457 141 ("Westpac").

Disclaimer

This material contains general commentary, and market colour. The material does not constitute investment advice. Certain types of transactions, including those involving futures, options and high yield securities give rise to substantial risk and are not suitable for all investors. We recommend that you seek your own independent legal or financial advice before proceeding with any investment decision. This information has been prepared without taking account of your objectives, financial situation or needs. This material may contain material provided by third parties. While such material is published with the necessary permission none of Westpac or its related entities accepts any responsibility for the accuracy or completeness of any such material. Although we have made every effort to ensure the information is free from error, none of Westpac or its related entities warrants the accuracy, adequacy or completeness of the information, or otherwise endorses it in any way. Except where contrary to law, Westpac and its related entities intend by this notice to exclude liability for the information. The information is subject to change without notice and none of Westpac or its related entities is under any obligation to update the information or correct any inaccuracy which may become apparent at a later date. The information contained in this material does not constitute an offer, a solicitation of an offer, or an inducement to subscribe for, purchase or sell any financial instrument or to enter a legally binding contract. Past performance is not a reliable indicator of future performance. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.

Country disclosures

Australia: Westpac holds an Australian Financial Services Licence (No. 233714). This material is provided to you solely for your own use and in your capacity as a wholesale client of Westpac.

New Zealand: In New Zealand, Westpac Institutional Bank refers to the brand under which products and services are provided by either Westpac or Westpac New Zealand Limited ("WNZL"). Any product or service made available by WNZL does not represent an offer from Westpac or any of its subsidiaries (other than WNZL). Neither Westpac nor its other subsidiaries guarantee or otherwise support the performance of WNZL in respect of any such product. The current disclosure statements for the New Zealand branch of Westpac and WNZL can be obtained at the internet address www.westpac.co.nz. For further information please refer to the Product Disclosure Statement (available from your Relationship Manager) for any product for which a Product Disclosure Statement is required, or applicable customer agreement.

China, Hong Kong, Singapore and India: This material has been prepared and issued for distribution in Singapore to institutional investors, accredited investors and expert investors (as defined in the applicable Singapore laws and regulations) only. Recipients in Singapore of this material should contact Westpac Singapore Branch in respect of any matters arising from, or in connection with, this material. Westpac Singapore Branch holds a wholesale banking licence and is subject to supervision by the Monetary Authority of Singapore. Westpac Hong Kong Branch holds a banking licence and is subject to supervision by the Hong Kong Monetary Authority. Westpac Hong Kong branch also holds a license issued by the Hong Kong Securities and Futures Commission (SFC) for Type 1 and Type 4 regulated activities. This material is intended only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance. Westpac Shanghai and Beijing Branches hold banking licenses and are subject to supervision by the China Banking and Insurance Regulatory Commission (CBIRC). Westpac Mumbai Branch holds a banking license from Reserve Bank of India (RBI) and subject to regulation and supervision by the RBI.

UK: The contents of this communication, which have been prepared by and are the sole responsibility of Westpac Banking Corporation London and Westpac Europe Limited. Westpac (a) has its principal place of business in the United Kingdom at Camomile Court, 23 Camomile Street, London EC3A 7LL, and is registered at Cardiff in the UK (as Branch No. BR00106), and (b) authorised and regulated by the Australian Prudential Regulation Authority in Australia. Westpac is authorised in the United Kingdom by the Prudential Regulation Authority. Westpac is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request. Westpac Europe Limited is a company registered in England (number 05660023) and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

This communication is being made only to and is directed at (a) persons who have professional experience in matters relating to investments who fall within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order") or (b) high net worth entities, and other persons to whom it may otherwise lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as "relevant persons"). Any person who is not a relevant person should not act or rely on this communication or any of its contents. The investments to which this communication relates are only available to and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such investments will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely upon this communication or any of its contents. In the same way, the information contained in this communication is intended for "eligible counterparties" and "professional clients" as defined by the rules of the Financial Conduct Authority and is not intended for "retail clients". With this in mind, Westpac expressly prohibits you from passing on the information in this communication to any third party. In particular this communication and, in each case, any copies thereof may not be taken, transmitted or distributed, directly or indirectly into any restricted jurisdiction. This communication is made in compliance with the Market Abuse Regulation (Regulation(EU) 596/2014).

Investment recommendations disclosure

The material may contain investment recommendations, including information recommending an investment strategy. Reasonable steps have been taken to ensure that the material is presented in a clear, accurate and objective manner. Investment Recommendations for Financial Instruments covered by MAR are made in compliance with Article 20 MAR. Westpac does not apply MAR Investment Recommendation requirements to Spot Foreign Exchange which is out of scope for MAR.

Unless otherwise indicated, there are no planned updates to this Investment Recommendation at the time of publication. Westpac has no obligation to update, modify or amend this Investment Recommendation or to notify the recipients of this Investment Recommendation should any information, including opinion, forecast or estimate set out in this Investment Recommendation change or subsequently become inaccurate.

Westpac will from time to time dispose of and acquire financial instruments of companies covered in this Investment Recommendation as principal and act as a market maker or liquidity provider in such financial instruments.

Westpac does not have any proprietary positions in equity shares of issuers that are the subject of an investment recommendation.

Westpac may have provided investment banking services to the issuer in the course of the past 12 months.

Westpac does not permit any issuer to see or comment on any investment recommendation prior to its completion and distribution.

Individuals who produce investment recommendations are not permitted to undertake any transactions in any financial instruments or derivatives in relation to the issuers covered by the investment recommendations they produce.

Westpac has implemented policies and procedures, which are designed to ensure conflicts of interests are managed consistently and appropriately, and to treat clients fairly.

The following arrangements have been adopted for the avoidance and prevention of conflicts in interests associated with the provision of investment recommendations.

- (i) Chinese Wall/Cell arrangements;
- (ii) physical separation of various Business/Support Units;
- (iii) and well defined wall/cell crossing procedures;
- (iv) a "need to know" policy;
- (v) documented and well defined procedures for dealing with conflicts of interest;
- (vi) steps by Compliance to ensure that the Chinese Wall/Cell arrangements remain effective and that such arrangements are adequately monitored.

U.S.: Westpac operates in the United States of America as a federally licensed branch, regulated by the Office of the Comptroller of the Currency. Westpac is also registered with the US Commodity Futures Trading Commission ("CFTC") as a Swap Dealer, but is neither registered as, or affiliated with, a Futures Commission Merchant registered with the US CFTC. Westpac Capital Markets, LLC ("WCM"), a wholly-owned subsidiary of Westpac, is a broker-dealer registered under the U.S. Securities Exchange Act of 1934 ("the Exchange Act") and member of the Financial Industry Regulatory Authority ("FINRA"). This communication is provided for distribution to U.S. institutional investors in reliance on the exemption from registration provided by Rule 15a-6 under the Exchange Act and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors in the United States. WCM is the U.S. distributor of this communication and accepts responsibility for the contents of this communication. All disclaimers set out with respect to Westpac apply equally to WCM. If you would like to speak to someone regarding any security mentioned herein, please contact WCM on +1 212 389 1269. All disclaimers set out with respect to Westpac apply equally to WCM.

Investing in any non-U.S. securities or related financial instruments mentioned in this communication may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the SEC in the United States. Information on such non-U.S. securities or related financial instruments may be limited. Non-U.S. companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect in the United States. The value of any investment or income from any securities or related derivative instruments denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related derivative instruments.

The author of this communication is employed by Westpac and is not registered or qualified as a research analyst, representative, or associated person under the rules of FINRA, any other U.S. self-regulatory organisation, or the laws, rules or regulations of any State. Unless otherwise specifically stated, the views expressed herein are solely those of the author and may differ from the information, views or analysis expressed by Westpac and/or its affiliates.

Past performance is not a reliable indicator of future performance. The forecasts given in this document are predictive in character. Whilst every effort has been taken to ensure that the assumptions on which the forecasts are based are reasonable, the forecasts may be affected by incorrect assumptions or by known or unknown risks and uncertainties. The ultimate outcomes may differ substantially from these forecasts.