

Westpac Economics Team





The New Zealand economy is being double crunched by rising interest rates and surging inflation. Recent sentiment surveys have reflected this squeeze. Over the remainder of the year and into 2023, we expect the weak sentiment to increasingly translate into slowing economic activity. The trick for the Reserve Bank will be to slow down the economy without completely derailing it.

New Zealand businesses remain downbeat. The latest ANZ business opinion survey, released last week, showed that nearly 57% of businesses expect that economic conditions will weaken over the coming year. In fact, confidence continues to linger around the lows that we saw during the 2008/09 financial crisis and when the economy first went into lockdown in 2020. Importantly, in addition to concerns about broader economic conditions, the majority of businesses now expect that trading conditions on their own shop floors will weaken over the next few months.

The weakness in business confidence is consistent with our expectations for a slowdown in economic growth over the coming months. We expect the slowdown to flow from the combined crunch on consumer demand from rising borrowing costs and surging living costs. At the same time, rising operating costs (including both materials costs and wages) are already squeezing businesses' margins. Consistent with those headwinds, businesses' investment plans remain low.

So far, though, some households have been shielded from the impact of rising interest rates. Those are households who took

out mortgages over the last year or so and who have benefited from the record low fixed mortgage rates over that time.

However, that picture is poised to change. An increasing number of borrowers will see their debt servicing costs jump over the coming months. For example, borrowers who fixed for two years in 2020, may have secured rates in the two percent range. Those same borrowers are now looking at a two-year rate that's close to double what it was back then. For the record, around 10% of mortgage lending is on floating rates, another 24% will come up for re-pricing by the end of this year, and a further 23% by mid-2023.

The strength of the labour market has also provided many households with a buffer from the other headwinds that they are now facing. Indeed, we expect the June quarter labour market surveys, released on Wednesday, to show a further drop in the unemployment rate to a fresh record low of 3.1%.

Compared to the March quarter, the June quarter was less affected by Omicron-related disruptions. With the labour market still red-hot and Covid restrictions having been relaxed,

we expect both a jump in the number of employed and in the number of hours worked over the guarter.

We also expect a further lift in wage growth over the quarter, though we expect that it will still lag inflation at this point in the cycle. For the Labour Cost Index (LCI), we're expecting a 0.9% increase in the overall measure for the June quarter. This would lift annual wage growth to 3.2%, the fastest pace since early 2009. For a better sense of what workers are actually receiving relative to inflation, we can look to the unadjusted measure of the LCI or at average hourly earnings. Both of those measures rose by 4.8% in the year to March, and we're expecting a further acceleration to around 5.5% for the year to June.

While we're on the topic of inflation, the labour market remains a crucial part of the inflation-interest rate nexus. It's still true that much of the surge in prices to date has been due to forces beyond New Zealand's control. But a tight labour market is the mechanism through which an initial price shock could become 'inflation' in the sense of an ongoing process of rising prices.

For this reason, the RBNZ has moved swiftly by hiking the OCR. At the same time, the Bank is striving to strike a balance between slowing the economy and thus inflation, but not to the point where the economy tips over into recession and where unemployment rises sharply.

For our part, we are not forecasting a recession. However, we can't entirely rule out the possibility that we will see a contraction in activity at some point over the coming year. Adding to that risk, were already seeing activity softening in some of our key trading partner economies, including the United States.

We expect that the slowdown in domestic economic activity that's now in train will prove to be moderate. In addition to the labour market strength, there are other factors in play supporting growth. For example, the low level of interest rates in recent years has been a windfall for many households and has contributed to an increase in household savings. Some households may choose to run down these savings over the next year or two in order to smooth their consumption.

While the coming slowdown is expected to be manageable from an economy-wide perspective, conditions will be varied across groups and sectors. For instance, many households on lower incomes are facing a sizeable squeeze on their spending power due to increases in the cost of household necessities like food and fuel. These households are also unlikely to have savings to call on over the coming years. In terms of industries, we expect consumer-focused industries like retail and hospitality to be the hardest hit.

Nathan Penny, Senior Agri Economist

+64 9 348 9114

nathan.penny@westpac.co.nz

Chart of the week

There is some light at the end of the supply chain tunnel. Shipping container rates have fallen significantly. While they are still high, rates have fallen by 38% since this year's high and 45% since the record high back in September 2021. Lower shipping rates benefit both importers and exporters as high shipping costs effectively act as a tax on trade. As a result, lower rates should both boost exporter incomes, and ultimately put downward pressure on the prices of imported consumer goods.

Shipping container rates

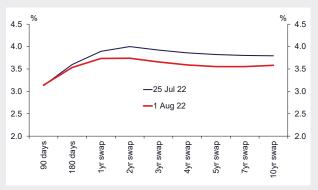


Fixed vs floating for mortgages

Wholesale interest rates have fallen from their highs in the last few weeks, as markets have reassessed the prospects for the global economy. That in turn has seen cuts to some fixed-term mortgage rates.

Even so, market pricing remains above what would be consistent with our forecast of a 3.5% peak in the Official Cash Rate this year. This suggests to us that fixing for a short period and rolling is still likely to produce a lower borrowing cost on average over the next few years. Fixing for a longer term could prove more expensive, but may suit those who want more certainty in their repayments.

NZ interest rates



The week ahead

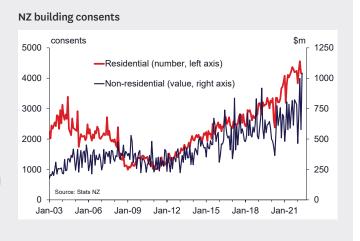
NZ Jun residential building consents

Aug 1, Last: -0.5%, Westpac f/c: -5.0%

While the level of dwelling consent issuance remains very high, the number of consents being issued each month has flattened off.

We're forecasting a 5% drop in consent numbers in June. That's mainly due to a moderation in medium-density consents after last month's sharp rise.

Conditions in the construction sector are turning. Materials shortages and rising costs have been squeezing margins. At the same time, purchasers have been stepping back as interest rates push higher and house prices drop. In light of those developments, we expect to see the number of new projects coming to market dropping off over the coming months, with building activity set to pull back from its recent highs over the coming year.



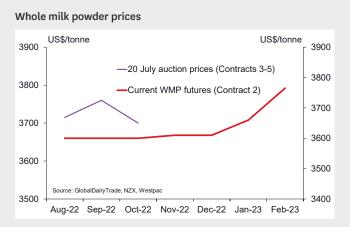
NZ GlobalDairyTrade auction, whole milk powder prices

Aug 3, Last: 5.1%, Westpac: -2%

We expect whole milk powder prices (WMP) to drop by around 2% at the upcoming auction. This follows a 5.1% price slide at the previous auction.

Commodity prices have corrected lower on growing concerns about the downside risks for global economic activity, and dairy prices have been no exception. In addition, Fonterra lifted WMP auction volumes for August and September. This move may have increased the downward pressure on prices at least temporarily.

However, further out we anticipate that very weak global supply combined with rebounding Chinese demand will support global dairy prices.



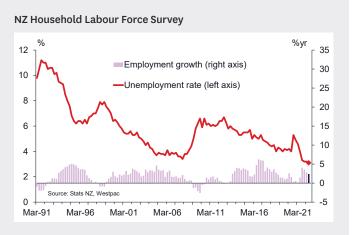
NZ Q2 Household Labour Force Survey

Aug 3, Employment last: 0.1%, Westpac f/c: 0.5%, Mkt: 0.4% Unemployment rate last: 3.2%, Westpac f/c: 3.1%, Mkt: 3.1%

We expect the unemployment rate to dip further to 3.1% in the June quarter. If so, that would mark another new low going back to the start of the survey in 1986.

The demand for workers remains red-hot. With fewer disruptions from Omicron compared to the previous quarter, we expect to see a lift in both employment and participation, with a small net decline in unemployment on balance.

Our forecast is in line with what the Reserve Bank assumed in its May forecasts, and would leave them on track for another 50 basis point OCR increase in August.



The week ahead

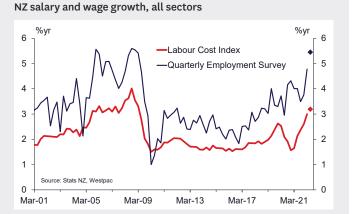
NZ Q2 Labour Cost Index

Aug 3, Private sector last: 0.7%, Westpac f/c: 1.0%, Mkt: 1.1%

Wage growth has been picking up over the last year, reflecting the tight jobs market. We expect a 1.0% rise in the Labour Cost Index for the private sector (0.9% overall). This would lift annual growth to 3.2%, the fastest pace since early 2009.

The June quarter tends to be boosted by minimum wage rises. The 6% increase this year was similar to last year's 5.8%, but successive increases capture a greater share of the workforce.

Wage increases continue to fall short of consumer price inflation. That reflects the unusual nature of the Covid shock, where inflation has been driven by both a boost to demand and a hit to productivity.

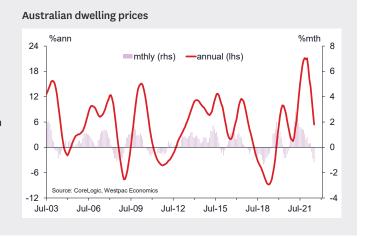


Aus Jul CoreLogic home value index

Aug 1, Last: -0.8%, WBC f/c: -1.5%

The wider housing market tipped over into correction in May, with price declines accelerating in June, the CoreLogic home value index down 0.8% after a 0.3% dip the previous month. Turnover is also declining sharply from high levels. The RBA's tightening cycle, which began with a 25bp rate rise in May and a 50bp move in June, has been the major catalyst turning the market.

Weakness looks to have intensified in July, hit by a further 50bp hike from the RBA. CoreLogic's daily measure points to a 1.5% decline across the major capitals with Sydney set for a particularly eyecatching 2.3% monthly fall.

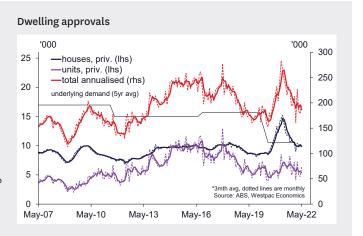


Aus Jun dwelling approvals

Aug 2, Last: 9.9%, WBC f/c: -5.0% Mkt f/c: -5.0%, Range: -14.0% to -0.5%

Dwelling approvals came in well above expectations in May, posting a 9.9% lift led by a bounce in 'units'. Looking through monthly and segment volatility, there still looks to an underlying down-trend in place, albeit showing some signs of moderation in recent months. The same processing delays that affected housing finance may also have impacted dwelling approvals through Apr-May.

Approvals are expected to see a renewed weakening in June with a 5% fall. While rate rises are often slow to impact new building, the RBA's latest moves are being compounded by a very sharp rise in building costs (the June quarter CPI showing new dwelling costs up 20%yr). There are downside risks to the June number given the Apr-May lift in units and what may have been temporary supports from the clearing of processing backlogs.



The week ahead

Aus RBA policy decision

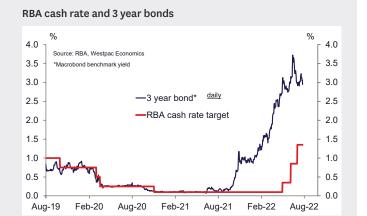
Aug 2, Last: 1.35%, WBC f/c: 1.85% Mkt f/c: 1.85%, Range: 1.85% to 2.10%

The RBA is quickly moving the cash rate back to "neutral" - and then beyond, in more measured steps. At the August meeting, we anticipate that the Board will lift rates by 50bps - the third consecutive move of 50bps - to 1.85%.

Globally and domestically, the inflation outlook is challenging, with risks that inflation expectations ratchet higher. In Australia, headline inflation is expected to climb to over 7% by year end, well above the RBA's 2-3% target band. The labour market is the tightest in 50 years and wages growth is accelerating, albeit from modest levels.

It is in this environment that the RBA is removing ultra easy monetary conditions and will shift to a contractionary stance.

Westpac anticipates that the cash rate will rise to 3.10% by year end and then peak at 3.35% in February 2023 - the expected path is another 50bps in September, and then 25bps moves at each meeting thereafter (with no meeting in January).

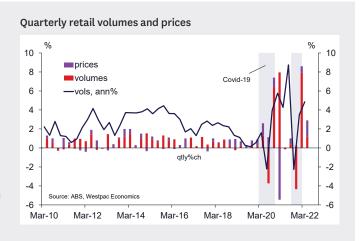


Aus 02 real retail sales

Aug 3, Last: 1.2%, WBC f/c: 1.2% Mkt f/c: 1.2%, Range: 0.6% to 2.4%

Real retail sales posted a solid 1.2% gain in Q1 following a sharp 7.9% 'reopening' surge in Q4, lifting annual growth to 4.9%yr.

Q2 is set for a similar result. Monthly figures already released show nominal sales up 3.2%qtr, a touch stronger than Q1's 2.9%qtr. The Q2 CPI detail showed strong gains for some retail categories, notably food prices up 2%qtr, clothing up 3.5%qtr, furniture up 6.2%qtr and furnishings and household equipment both up 4%qtr. Expenditure switching will tend to moderate these effects as they are measured in the retail deflator. However, a quarterly price rise in the order of 2%still looks likely. That would imply a quarterly volume gain of 1.2%qtr, in line with that seen in Q1.



Aus Jun trade balance, AUDbn

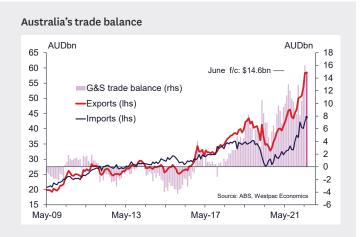
Aug 4, Last: 16.0, WBC f/c: 14.6 Mkt f/c: 13.9, Range: 10.5 to 18.0

Australia's monthly trade surplus climbed to a fresh record high of \$16.0bn in May, up from \$13.2bn for April and well above the Q1 average of \$10.5bn. Export earnings have increased in Q2 on higher commodity prices, as well as a lift in volumes, off a low base.

For June, we expect the surplus to remain elevated, albeit down from the May peak, at a forecast \$14.6bn.

Imports are expected to advance, +3.2%, +\$1.4bn. This is on a likely combination of higher prices (including global energy costs) and an upward trend in volumes, to meet rising domestic demand.

Export earnings were potentially flat in the month, consolidating recent strong gains, +5% in April and +9.5% in May. For June, coal earnings are likely lower, on a pull-back in prices from lofty levels. Metal prices were also down. Offsetting this are potential gains for services (border reopening) and a further rise in LNG, as well as an increase in iron ore on additional shipments.

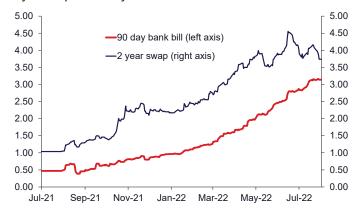


New Zealand forecasts

Economic forecasts		Quai	rterly		Annual			
	2022							
% change	Mar (a)	Jun	Sep	Dec	2020	2021	2022f	2023f
GDP (Production)	-0.2	1.0	0.7	1.2	-2.1	5.6	2.1	3.3
Employment	0.1	0.5	0.0	0.2	0.6	3.5	0.8	0.9
Unemployment Rate % s.a.	3.2	3.1	3.0	3.0	4.9	3.2	3.0	3.3
СРІ	1.8	1.7	1.6	0.1	1.4	5.9	5.2	3.3
Current Account Balance % of GDP	-6.5	-7.5	-7.8	-7.5	-0.8	-5.8	-7.5	-6.1

Financial forecasts	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24
Cash	3.00	3.50	3.50	3.50	3.50	3.50	3.50
90 Day bill	3.40	3.60	3.60	3.60	3.60	3.60	3.60
2 Year Swap	3.90	3.80	3.70	3.50	3.30	3.15	3.00
5 Year Swap	3.80	3.70	3.50	3.30	3.15	3.00	2.90
10 Year Bond	3.60	3.50	3.40	3.25	3.10	3.00	2.95
NZD/USD	0.64	0.66	0.68	0.69	0.70	0.71	0.71
NZD/AUD	0.90	0.90	0.91	0.91	0.91	0.91	0.91
NZD/JPY	85.8	87.1	88.4	87.6	87.5	87.3	85.9
NZD/EUR	0.61	0.61	0.61	0.61	0.61	0.62	0.61
NZD/GBP	0.52	0.52	0.53	0.53	0.53	0.53	0.53
TWI	71.2	71.8	72.8	73.0	73.4	74.1	73.8

2 year swap and 90 day bank bills



NZD/USD and NZD/AUD



NZ interest rates as at market open on 1 August 2022

Interest rates	Current	Two weeks ago	One month ago
Cash	2.50%	2.50%	2.00%
30 Days	2.79%	2.65%	2.40%
60 Days	2.98%	2.89%	2.62%
90 Days	3.14%	3.13%	2.83%
2 Year Swap	3.74%	4.11%	3.80%
5 Year Swap	3.55%	3.88%	3.79%

NZ foreign currency mid-rates as at 1 August 2022

Exchange rates	Current	Two weeks ago	One month ago
NZD/USD	0.6274	0.6176	0.6249
NZD/EUR	0.6150	0.6080	0.5979
NZD/GBP	0.5159	0.5154	0.5148
NZD/JPY	83.66	85.36	84.61
NZD/AUD	0.9001	0.9036	0.9077
TWI	71.18	70.54	70.70

Data calendar

		Last	Market median	Westpac forecast	Risk/Comment
Mon 01					
NZ	Jun building permits	-0.5%	-	-5.0%	Pullback after last month's rise in medium density consents.
Aus	Bank holiday NSW	_	-	_	Bank holiday in NSW, Picnic day in NT. Markets are open.
	Jul MI inflation gauge	4.7%	-	-	Inflation well above the RBA's target band.
	Jul ANZ job ads	1.4%	-	-	Job vacancies on par with total unemployed.
	Jul CoreLogic home value index	-0.8%	-	-1.5%	Price correction accelerated in July, Sydney down ~2.3%mth.
Chn	Jul Caixin manufacturing PMI	51.7	51.5	-	To hold broadly steady as China navigates reopening.
ur	Jul S&P Global manufacturing PMI	49.6	49.6	-	Final estimate for the month.
	Jun unemployment rate	6.6%	6.6%	-	Holding at record lows.
JK	Jul S&P Global manufacturing PMI	52.2	_	_	Final estimate for the month.
JS	Jul S&P Global manufacturing PMI	52.3	_	_	Final estimate for the month.
	Jun construction spending	-0.1%	0.4%	-	Home building to provide medium-term support.
	Jul ISM manufacturing	53.0	52.1	_	Supply and cost pressures weighing on mfg growth.
ue 02		,			
lus	Jun housing finance	1.7%	-3.0%	-5.0%	Downturn to show through more clearly
	Jun investor finance	0.9%	_	-4.5%	investors marginally less affected
	Jun owner occupier finance	2.1%	_	-5.5%	than affordability constrained owner occupiers.
	Jun dwelling approvals	9.9%	-5.0%	-5.0%	Rate hikes, surging costs to hit.
	RBA policy decision	1.35%	1.85%	1.85%	Rates quickly moving back to neutral – and then beyond.
JK	Jul Nationwide house prices	0.3%	0.5%	_	Demand to soften as rate hikes take effect.
IS	Jun JOLTS job openings	11254k	10994k	_	Continues to point to extraordinary labour demand.
	Fedspeak	_	_	_	Evans; NY Fed Q2 household debt and credit report too.
Ved 03					
IZ	GlobalDairyTrade auction prices (WMP)	-5.1%	_	-2.0%	Global dairy prices remain under pressure.
	Q2 unemployment rate	3.2%	3.1%	3.1%	Evidence points to a further tightening in the jobs market
	Q2 employment	0.1%	0.5%	0.5%	with fewer Covid disruptions boosting employment.
	Q2 LCI wage inflation (pvte, ord. time)	0.7%	1.1%	1.0%	Wage growth picking up, boosted by minimum wage in Q2.
	Jul ANZ commodity prices	-0.4%	_	_	Commodity prices falling on the back of dairy price falls.
us	Q2 real retail sales	1.2%	1.2%	1.2%	Nominal sales up 3.2%qtr but 2% of that likely due to prices.
hn	Jul Caixin services PMI	54.5	53.8	_	To remain buoyant given lingering virus disruptions.
ur	Jul S&P Global services PMI	50.6	50.6	_	Final estimate for the month.
	Jun retail sales	0.2%	0.0%	_	Cost of living pressures weighing on retail trade.
JK	Jul S&P Global services PMI	53.3		_	Final estimate for the month.
JS	Jul S&P Global services PMI	47.0			Final estimate for the month.
,,,	Jul ISM non-manufacturing	55.3	53.9	_	Services at risk from loss of real income and rates.
	Jun factory orders	1.6%	0.8%	_	Capital investment holding at robust levels
	Jun durable goods orders	1.9%	0.070		but uncertainty clouding the outlook.
	Fedspeak	1.570		_	Bullard.
hu 04	reuspeak				buttar a.
lus	Jun trade balance \$bn	16.0	13.9	14.6	Imports up (prices & vol's), exports consolidate after rapid gains
JK	<u> </u>			- 14.0	50bp hike needed to quell inflation.
IS	BoE policy decision	1.25%	1.75%		Deficit to remain wide.
13	Jun trade balance US\$bn	-85.5	-81.5	_	
	Initial jobless claims	256k	_	_	Slowly starting to lift from historic lows.
	Fedspeak	_	-		Mester.
ri 05	PRACTICAL TO THE PRACTI				no local Construction Construction
Aus	RBA Statement on Monetary Policy	-	_		Updated forecasts key focus.
Chn	Q2 current account balance US\$bn	88.9	-	-	Trade very strong in 2022.
JS	Jul non-farm payrolls	372k	250k	200k	Payrolls due for a week month given HH survey flat in Q2
	Jul unemployment rate	3.6%	3.6%	3.6%	but U/E unlikely to rise for a few months
	Jul average hourly earnings %mth	0.3%	0.4%	0.3%	putting off the next leg down in wage growth.

International forecasts

Economic Forecasts (Calendar Years)	2018	2019	2020	2021	2022f	2023f
Australia						
Real GDP %yr	2.8	2.0	-2.1	4.8	4.5	2.7
CPI inflation %yr	1.8	1.8	0.9	3.5	6.6	3.0
Unemployment rate %	5.0	5.2	6.8	4.7	3.3	3.5
Current account % of GDP	-2.1	0.7	2.6	3.5	1.7	-1.2
United States						
Real GDP %yr	2.9	2.3	-3.4	5.7	2.0	0.8
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	4.1
Current account % of GDP	-2.3	-2.6	-2.5	-2.4	-2.4	-2.4
Japan						
Real GDP %yr	0.6	-0.2	-4.5	1.6	1.7	1.8
Euro zone						
Real GDP %yr	1.8	1.6	-6.4	5.3	2.2	1.5
United Kingdom						
Real GDP %yr	1.7	1.7	-9.3	7.4	3.3	0.0
China						
Real GDP %yr	6.8	6.0	2.2	8.1	5.3	5.5
East Asia ex China						
Real GDP %yr	4.5	3.8	-2.3	4.1	4.5	4.6
World						
Real GDP %yr	3.6	2.9	-3.1	6.1	3.4	3.2

Forecasts finalised 8 July 2022

Interest rate forecasts	Latest	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24
Australia								
Cash	1.35	2.35	3.10	3.35	3.35	3.35	3.35	3.10
90 Day BBSW	2.15	3.05	3.55	3.55	3.55	3.55	3.38	3.13
10 Year Bond	3.06	3.60	3.50	3.35	3.15	2.90	2.65	2.50
International								
Fed Funds	2.375	2.875	3.375	3.375	3.375	3.375	3.125	2.875
US 10 Year Bond	2.67	3.10	3.00	2.90	2.70	2.50	2.30	2.20

Exchange rate forecasts	Latest	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24
AUD/USD	0.7003	0.71	0.73	0.75	0.76	0.77	0.78	0.78
USD/JPY	133.76	134	132	130	127	125	123	121
EUR/USD	1.0204	1.05	1.09	1.11	1.13	1.14	1.15	1.16
GBP/USD	1.2179	1.23	1.26	1.28	1.30	1.32	1.34	1.35
USD/CNY	6.7449	6.55	6.35	6.25	6.20	6.15	6.15	6.10
AUD/NZD	1.1098	1.11	1.11	1.10	1.10	1.10	1.10	1.10

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 457141 ('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, as officiation 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 her 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 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 license 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 1 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 wastpac is subject to regulation by the Financial Countd 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). (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.

We stpac 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.

- Chinese Wall/Cell arrangements;
- physical separation of various Business/Support Units;
- (iii) and well defined wall/cell crossing procedures;
- (v) documented and well defined procedures for dealing with conflicts of interest;
- 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 ("MCM"), 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 related manaria instruments inentioned 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 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.