ANZ Research

NZ Labour Market Forecast Update: Applying pressure

3 February 2022

Contact

Finn Robinson or Sharon Zollner for more details.

Applying pressure

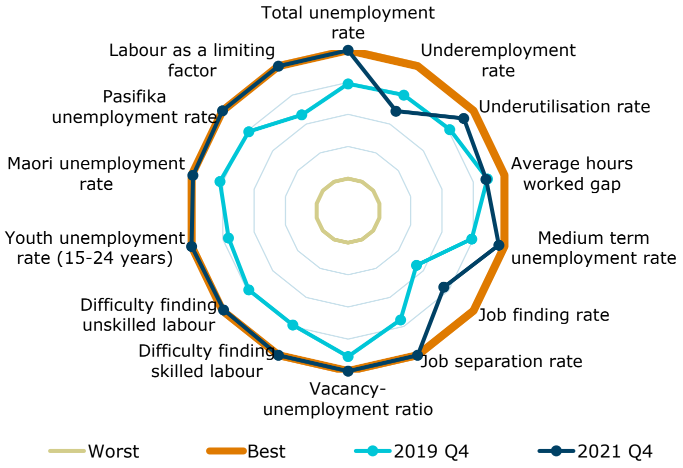
Introduction

- The labour market is the tightest it's been in the inflation-targeting era, with unemployment down to a record low of 3.2% in Q4, and many of the RBNZ's employment indicators as strong as they've been since at least the year 2000.
- We expect to see some further tightening in the labour market over early 2022, with still-constrained labour supply well short of meeting demand. We therefore see unemployment falling to a low of 2.9%, before gradually rising to 3% in 2023 as higher interest rates bite. Wage growth shouldn't be far behind – we're forecasting wage growth will accelerate from 2.8% y/y in 2021, to a peak of 3.8% in late 2022.
- Forecast uncertainty for the labour market is high (like everything at the moment). In particular, we don't know how the border opening will impact the labour market. While an open border makes it far easier to arrive, an unknown number of people will have been waiting for this development to leave – we're not the only country desperately looking for skilled workers. Omicron is another key uncertainty, as is the impact of tighter monetary policy.
- Given the uncertainty, we continue to expect the RBNZ will keep hiking interest rates in measured 25bp increments, to a peak of 3% in April 2023. But risks abound – the Kōtuku will be navigating some turbulent air as we move through 2022.

Where is the labour market now?

Q4's labour market print, while coming in a touch softer than our top-of-market expectation, was still very strong. The unemployment rate was 3.2% in Q4 – a record low in the HLFS data (which goes back to 1986), and that was in the context of a participation rate that at 71.1% is only a whisker below its record high of 71.2% in the previous quarter. Figure 1 shows how the RBNZ's indicators of the labour market are tracking – the vast bulk are now at or close to the orange line, ie the strongest outturn since 2000. This reflects the sheer strength we're seeing in the overall labour market picture.

Figure 1. RBNZ employment indicators



Source: Stats NZ, MBIE, NZIER, RBNZ, Macrobond, ANZ Research

Note: The yellow circle in the middle is the worst outcome since 2000, while the orange circle is the best outcome since 2000. The light blue line shows the state of play in 2019 Q4, when the RBNZ said "employment is at or slightly above its maximum sustainable level" in the February 2020 MPS. The details of the indicators are outlined in this RBNZ Analytical Note.

There were some relative soft spots, with average hours worked still down 4.1% y/y, having only partially re-traced their lockdown-induced fall in Q3, while underemployment also ticked up 0.2ppts to 3.4% of the labour force. But underemployment is still very low relative to the post-GFC period, and measures like hours worked are going to continue to be volatile as COVID outbreaks disrupt the labour market. This is a temporary dynamic, and as we've discussed previously, in the big picture COVID is more likely to reduce labour supply than dent demand – that's inflationary.

For the RBNZ, they're likely to look at figure 1 and come to the same conclusion as us – labour demand is well in excess of the amount available, and that's going to be a persistent driver of stronger wages (and therefore domestic inflation) over the next year or so. True, wage inflation wasn't quite as strong as they (or we) expected in Q4, and that saw the market dial back slightly the odds it's placing on the chance of a 50bp hike in February. But in a labour market this tight, wage inflation won't be far behind (something we discuss extensively below).

The outlook for unemployment

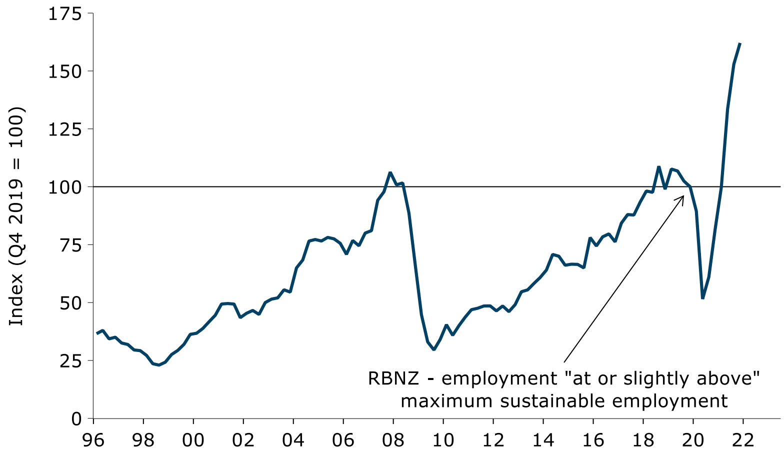
So, a record low of 3.2% unemployment – is that the limit? It seems unlikely, when we take a step back and look at what's actually driving labour supply and demand in the New Zealand economy.

On the supply side, the border is still closed (albeit not for long, touch wood), while participation is hovering around record levels. In the near term, then, it's going to be an uphill battle to bring more people into the labour force (especially with Omicron spreading in the community), and it will require firms to make their jobs ever more enticing (ie higher wages and/or better working conditions). Of course, with 3.4% of the labour force still underemployed, there's scope for some workers to increase their hours, but firms have copious amounts of vacancies, so even a further reduction in underemployment won't do much to ease things.

With the Government announcing plans for the imminent (albeit gradual) reopening of the border, that could open up international labour markets for Kiwi firms. But there'll also be a queue of Kiwis wanting to head overseas once they know they won't have to go through the MIQ lottery to return home, and there's plenty of demand for skilled workers overseas, including in our nearest neighbour. Indeed, tight labour markets have very much been a global phenomenon, so it's not clear that attracting international applicants will be easy for some industries. All up, it's highly uncertain how the border opening will actually impact the labour market. For now we've assumed a moderate boost in labour supply (and employment) from H2 2022 onwards, and we'll watch developments closely over this year.

But for now, the domestic labour supply is very constrained relative to what seems to be insatiable labour demand. We can see this in the ratio of the job-vacancy index to the implied number of unemployed people from the HLFS – it hit another record high in the December quarter (figure 2). Hiring intentions in both the QSBO and our own Business Outlook remain positive, implying it'll take even more slowing in labour demand before the intense pressure in the labour market eases. One factor dampening demand will be higher interest rates, as the RBNZ acts to bring surging domestic inflation pressures back to earth.

Figure 2. Job-vacancy to unemployment ratio

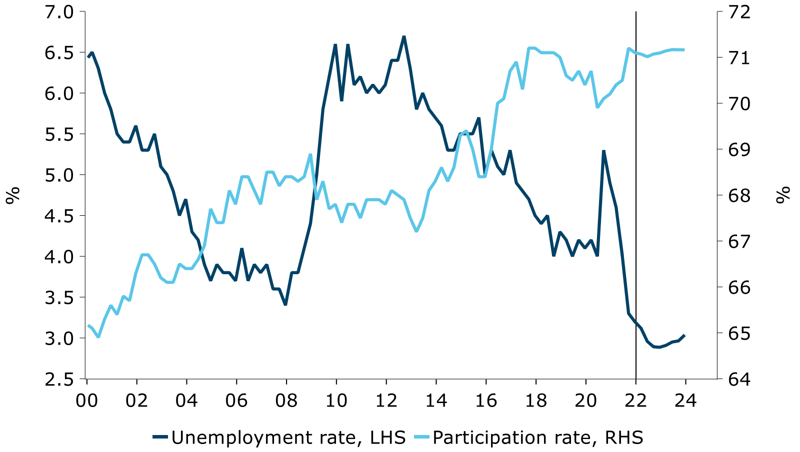


Source: Stats NZ, MBIE, Macrobond, ANZ Research

We expect the unemployment rate will fall a touch further to a low of 2.9% in Q3 2022, and hang around the 3% level until the end of 2023 (figure 3).

But if the past two years have taught us anything, it's that forecasting even one quarter ahead in the time of COVID is highly uncertain. It's possible that tighter monetary policy becomes a more significant drag on employment than we've factored in, seeing unemployment rise closer to 4%. However, there's so much excess demand in the labour market currently that under our central scenario of the RBNZ achieving a soft landing for the economy, we think the labour market can handle a fairly sizeable rise in interest rates before it would result in higher unemployment.

Figure 3. Unemployment and participation rate forecasts



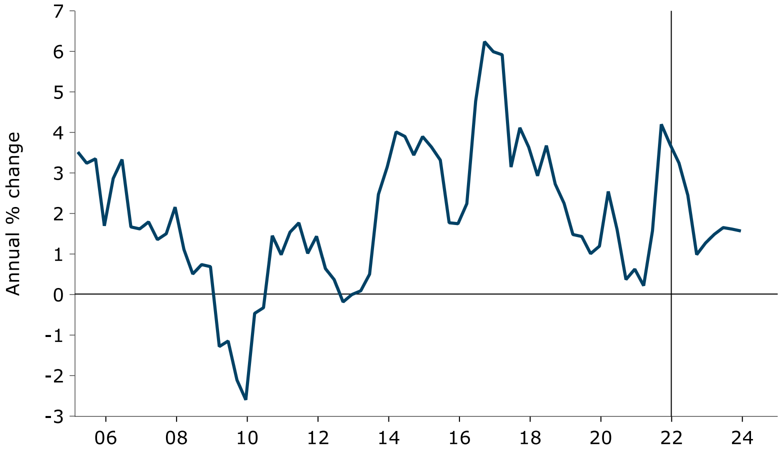
Source: Stats NZ, Macrobond, ANZ Research

We assume that the participation rate will hold up close to current levels (figure 3). Rising inflation is undermining real wages, so some household members may need to enter the labour force to make ends meet. At the same time, firms are desperate for workers, so as wage offers improve, more people will likely be lured into employment.

The real risk for participation is Omicron. If the overseas experience with widespread community spread is anything to go by, we could see a significant drop in participation, at least temporarily. That would only exacerbate the mismatch between labour demand and supply – and therefore boost inflation. So at this point, it's actually an upside risk to already too-strong domestic inflation.

Finally, touching on employment – in a labour market this supply constrained, the outlook for employment growth is not strong – not for lack of trying! We're expecting very slow employment growth over the first half of this year, with some improvement over the second half and into 2023 as the border opening is assumed to provide a net boost to employment levels in New Zealand (figure 4).

Figure 4. Employment forecast



Source: Stats NZ, Macrobond, ANZ Research

How low can you go?

When the labour market is this tight, forecasting the unemployment rate requires a guesstimate of the what the limits are.

There are a few things going on at present.

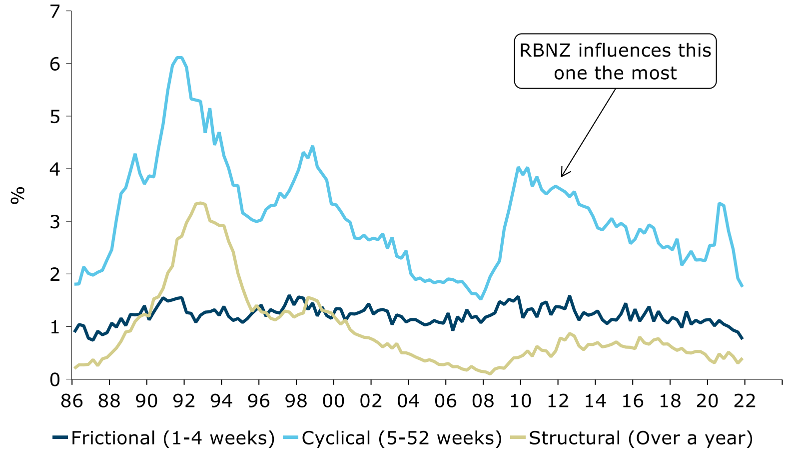
Firstly, COVID has changed the shape of the economy. And it's hard for people who lose jobs in one industry to transition into another industry – especially if such a shift requires physically moving regions or retraining. So there's still some sand in the gears of the process in of matching unemployed people with vacant positions (economists call this a decline in 'matching efficiency').

Secondly, the labour market is always characterised by some level of unemployment. "Frictional" unemployment captures people who become unemployed for a short period in between jobs. And long-term unemployment reflects structural issues that bar people from being able to find employment.

If we loosely define frictional unemployment as lasting a month or less, and structural unemployment as lasting for over a year, then together these two amount to about 1-2% of the labour force in the past two decades (figure 5).

Given monetary policy can only really affect the cyclical side of things, these factors mean we may struggle to see unemployment drop much further than the already record-low 3.2% in Q4 – hence our forecast for a 2.9% trough in the unemployment rate. That said, we've been pleasantly surprised by how much employment has been able to grow in recent months, so add it to the pile of uncertainties that could surprise us.

Figure 5. Frictional, structural, and cyclical unemployment1



Source: Stats NZ, Macrobond, ANZ Research

On a related note, it's worth touching briefly on why the RBNZ doesn't aim for zero unemployment. There are lots of good ways to reduce the average level of unemployment over time (skills training, investment in mental and physical health, a laser focus on marginal tax rates etc). But running monetary policy too loose for too long isn't one of them. It just results in boom-bust cycles, resulting in deeper recessions than necessary that hit the most vulnerable the hardest.

That's not to say that a period of heat in the labour market doesn't has its advantages! It provides a strong incentive for firms to invest in productivity-enhancing technology that will underpin higher real wages in the future, and

[1] This decomposition follows an equivalent analysis by the RBA.

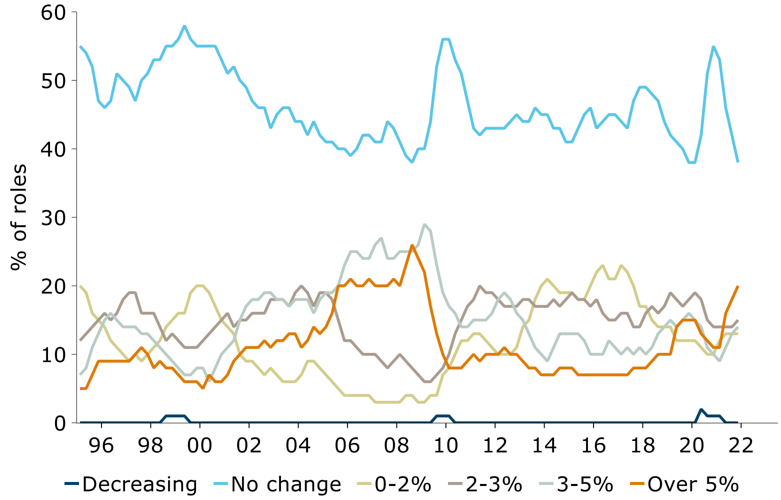
it provides individuals with opportunities to upskill that should set them in better stead for the rest of their careers. But monetary policy does not and should not deliberately attempt to keep unemployment lower than is sustainable. It just won't end well, unfortunately.

The outlook for wages

Probably the most disappointing aspect of the jobs report yesterday was the headline number for private sector wages, with the Labour Cost Index rising 0.7% q/q (2.8% y/y), versus widespread expectations for a 0.9% q/q lift. That suggests we're not yet seeing the kind of wage prints that would be consistent with a labour market this tight.

However, under the hood there were some encouraging signs. The unadjusted LCI was up a solid 1.1% q/q (4.2% y/y), while average hourly earnings came in at 1.4% q/q (4.1% y/y). Both were actually very good prints for Q4, when wage rises are usually a bit lower. And, the share of jobs receiving a 5% or larger annual pay rise for the year to December 2021 was up to 20% - the highest reading since 2009, and a marked lift from just 7% in the mid-2010s (figure 6). The share of roles receiving no pay rise is at an historic low of 38%.

Figure 6. Distribution of annual wage rises



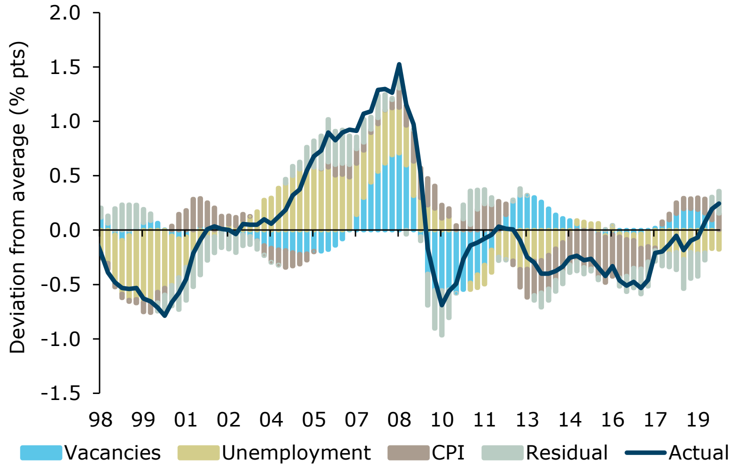
Source: Stats NZ, Macrobond, ANZ Research

But the fact remains that at 2.8% y/y, annual growth in the LCI is still well short of what we would expect to see, given an unemployment rate of 3.2% and CPI inflation of 5.9%. So why haven't we seen the kind of strong wage inflation that characterised the mid-2000s when the unemployment rate was last in the 3s?

It's probably because wages just take a while to adjust. We've gone through a decade where inflation was too low for the RBNZ's target, and where indexing once-a-year pay reviews to last year's inflation probably wasn't a bad strategy in terms of keeping up with the cost of living. This inertia in wage-setting behaviour may take some time to be overcome. But with low unemployment, high vacancies, and the surging cost of living, that adjustment will have to happen, or firms will find the resignation letters piling up.

Historically, we estimate that low unemployment and high vacancies over the mid-2000s were significant and persistent drivers of the above-average wage growth we saw over that period (figure 7). In the mid-2010s, on the other hand, below-target CPI inflation was an active drag on wages. Right now, all three factors are pointing strongly upwards. And while it may take some time for wage growth to rise to the levels we saw in the 2000s, we think it will. As figure 7 shows, high labour demand (vacancies), low labour supply (unemployment), and the rising cost of living (inflation) are very persistent drivers of high wages – so we expect a solid rise in wage growth over the next few years.

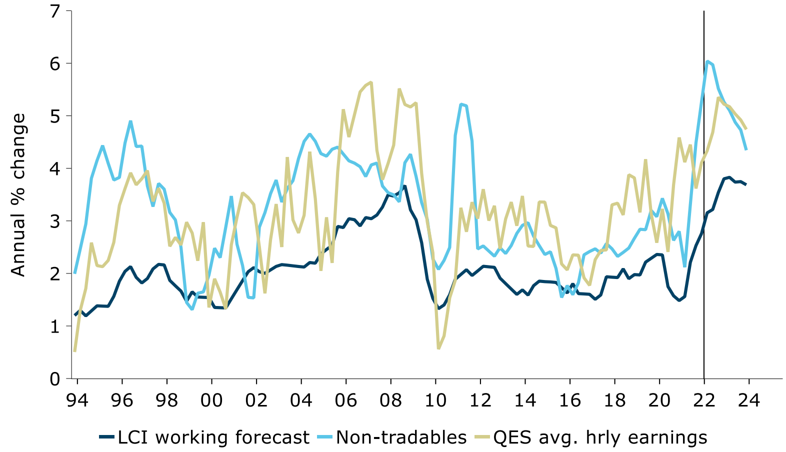
Figure 7. Historical drivers of NZ wage inflation (excluding COVID years)[2]



Source: Stats NZ, MBIE, ANZ Research

Turning to the numbers, we're anticipating that wage growth will accelerate over 2022, with LCI wage inflation rising from 2.8% in Q4 2021 to a peak of 3.8% at the end of the year. And average hourly earnings growth is forecast to lift to a peak of 5.4% in the second half of this year, from 4.1% currently (figure 8). Beyond that, tighter monetary policy should help to bring domestic inflation pressures back under control – and in turn that will reduce the pressure on wages from the cost of living.

Figure 8. Wage inflation forecast and non-tradables inflation



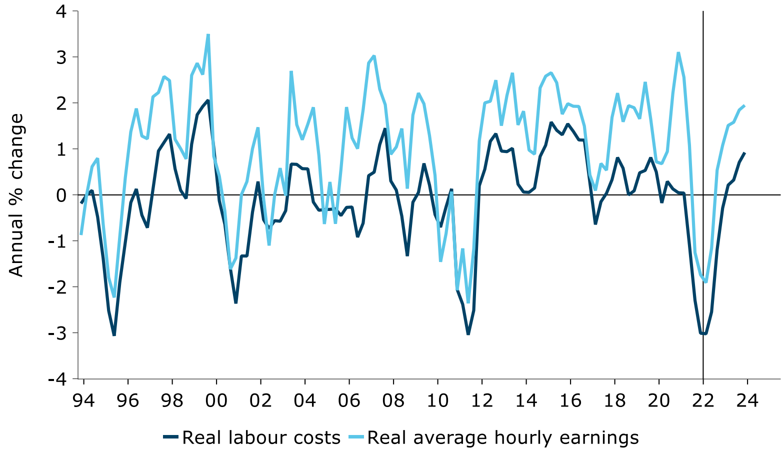
Source: Stats NZ, Macrobond, ANZ Research

Given the strength in CPI inflation in recent quarters, it's no surprise that real wages are falling rapidly at present. In the year to December 2021, inflation-adjusted average hourly earnings were actually down 1.7%. So even if on paper the labour market is the tightest on record, many households probably still feel like they're going backwards.

[2] Technical details: The figure shows the historical decomposition of de-meaned wage growth after estimating an SVAR from 1995 to 2019 (ending in 2019 to avoid COVID-era volatility). We use the svars package in R.

There is reason for cautious optimism on that front. Our forecasts for wages and inflation imply real wage growth back in positive territory towards end-2022/early-2023, before accelerating over the rest of 2023. However, until then, households may have to wear the cost of declining real wage growth – and that will reduce demand, and probably contribute to soggy consumer confidence as well.

Figure 9. Real wage growth implied by our forecasts



Source: Stats NZ, Macrobond, ANZ Research

Bringing it all together

Overall, this labour market is highly inflationary. A 3.2% unemployment rate is a good thing, absolutely. But inflation is gobbling up the gains that households might expect to see in a labour market this favourable for workers. And for the RBNZ, it’s quite clear that the mismatch between labour demand and supply is not consistent with low and stable inflation. In fact, the super-tight labour market will likely be a strong contributor to domestic inflation pressures over 2022.

In order to bring demand back in line with supply, we see the RBNZ lifting the OCR in 25bp steps to 3% in April 2023. That’s assuming nothing goes wrong though, and that the RBNZ is able to engineer a soft landing. The history of inflation targeting suggests that’s easier said than done from this core inflation starting point. That’s consistent with our earlier discussion of boom-bust risks caused by monetary policy being too stimulatory for too long – which, with the benefit of hindsight, it has been.

The good news is that as long as the wheels don’t fall off, we’re not forecasting that higher interest rates will cause a significant rise in unemployment – demand is so out of whack with supply that the RBNZ can probably hike interest rates pretty far before causing many job losses. But there’s always the risk that higher interest rates prove more potent – particularly after the bonkers increase in house prices that we’ve seen in the past year and a bit.

And while we normally focus on the demand side of the equation when forecasting, labour supply is equally important at the moment. Border impacts are just one more uncertainty to add to the list.

All up, this uncertainty speaks to the RBNZ continuing in measured 25bp steps as they gradually tighten monetary policy.

Contact us

Meet the team

We welcome your questions and feedback. Click here for more information about our team.

Sharon Zollner
Chief Economist

Follow Sharon on Twitter
@sharon_zollner

Telephone: +64 27 664 3554
Email: sharon.zollner@anz.com

General enquiries:
research@anz.com

Follow ANZ Research
@ANZ_Research (global)

David Croy
Senior Strategist

Market developments, interest rates, FX, unconventional monetary policy, liaison with market participants.

Telephone: +64 4 576 1022
Email: david.croy@anz.com

Susan Kilsby
Agricultural Economist

Primary industry developments and outlook, structural change and regulation, liaison with industry.

Telephone: +64 21 633 469
Email: susan.kilsby@anz.com

Miles Workman
Senior Economist

Macroeconomic forecast co-ordinator, fiscal policy, economic risk assessment and credit developments.

Telephone: +64 21 661 792
Email: miles.workman@anz.com

Finn Robinson
Economist

Macroeconomic forecasting, economic developments, labour market dynamics, inflation and monetary policy.

Telephone: +64 21 629 553
Email: finn.robinson@anz.com

Kyle Uerata
Economic Statistician

Economic statistics, ANZ proprietary data (including ANZ Business Outlook), data capability and infrastructure.

Telephone: +64 21 633 894
Email: kyle.uerata@anz.com

Natalie Denne
PA / Desktop Publisher

Business management, general enquiries, mailing lists, publications, chief economist’s diary.

Telephone: +64 21 253 6808
Email: natalie.denne@anz.com

Important notice

Last updated: Last updated: 15 October 2021

This document is intended for ANZ's Institutional, Markets and Private Banking clients. It should not be forwarded, copied or distributed. The opinions and research contained in this document are (a) not personal advice nor financial advice about any product or service; (b) provided for information only; and (c) intended to be general in nature and does not take into account your financial situation or goals.

This document may be restricted by law in certain jurisdictions. Persons who receive this document must inform themselves about and observe all relevant restrictions.

Disclaimer for all jurisdictions: This document is prepared and distributed in your country/region by either: Australia and New Zealand Banking Group Limited (ABN11 005 357 522) (**ANZ**); or its relevant subsidiary or branch (each, an **Affiliate**), as appropriate or as set out below.

This document is distributed on the basis that it is only for the information of the specified recipient or permitted user of the relevant website (**recipients**).

This document is solely for informational purposes and nothing contained within is intended to be an invitation, solicitation or offer by ANZ to sell, or buy, receive or provide any product or service, or to participate in a particular trading strategy.

Distribution of this document to you is only as may be permissible by the laws of your jurisdiction, and is not directed to or intended for distribution or use by recipients resident or located in jurisdictions where its use or distribution would be contrary to those laws or regulations, or in jurisdictions where ANZ would be subject to additional licensing or registration requirements. Further, the products and services mentioned in this document may not be available in all countries.

ANZ in no way provides any financial, legal, taxation or investment advice to you in connection with any product or service discussed in this document. Before making any investment decision, recipients should seek independent financial, legal, tax and other relevant advice having regard to their particular circumstances.

Whilst care has been taken in the preparation of this document and the information contained within is believed to be accurate, ANZ does not represent or warrant the accuracy or completeness of the information Further, ANZ does not accept any responsibility to inform you of any matter that subsequently comes to its notice, which may affect the accuracy of the information in this document.

Preparation of this document and the opinions expressed in it may involve material elements of subjective judgement and analysis. Unless specifically stated otherwise: they are current on the date of this document and are subject to change without notice; and, all price information is indicative only. Any opinions expressed in this document are subject to change at any time without notice.

ANZ does not guarantee the performance of any product mentioned in this document. All investments entail a risk and may result in both profits and losses. Past performance is not necessarily an indicator of future performance. The products and services described in this document may not be suitable for all investors, and transacting in these products or services may be considered risky.

ANZ expressly disclaims any responsibility and shall not be liable for any loss, damage, claim, liability, proceedings, cost or expense (Liability) arising directly or indirectly and whether in tort (including negligence), contract, equity or otherwise out of or in connection with this document to the extent permissible under relevant law. Please note, the contents of this document have not been reviewed by any regulatory body or authority in any jurisdiction.

ANZ and its Affiliates may have an interest in the subject matter of this document. They may receive fees from customers for dealing in the products or services described in this document, and their staff and introducers of business may share in such fees or remuneration that may be influenced by total sales, at all times received and/or apportioned in accordance with local regulatory requirements. Further, they or their customers may have or have had interests or long or short positions in the products or services described in this document, and may at any time make purchases and/or sales in them as principal or agent, as well as act (or have acted) as a market maker in such products. This document is published in accordance with ANZ's policies on conflicts of interest and ANZ maintains appropriate information barriers to control the flow of information between businesses within it and its Affiliates.

Your ANZ point of contact can assist with any questions about this document including for further information on these disclosures of interest.

Country/region specific information: Unless stated otherwise, this document is distributed by Australia and New Zealand Banking Group Limited (**ANZ**).

Australia. ANZ holds an Australian Financial Services licence no. 234527. For a copy of ANZ's Financial Services Guide please or request from your ANZ point of contact.

Brazil, Brunei, India, Japan, Kuwait, Malaysia, Switzerland, Taiwan. This document is distributed in each of these jurisdictions by ANZ on a cross-border basis.

Cambodia. The information contained in this document is confidential and is provided solely for your use upon your request. This does not constitute or form part of an offer or solicitation of any offer to engage services, nor should it or any part of it form the basis of, or be relied in any connection with, any contract or commitment whatsoever. ANZ does not have a licence to undertake banking operations or securities business or similar business, in Cambodia. By requesting financial services from ANZ, you agree, represent and warrant that you are engaging our services wholly outside of Cambodia and subject to the laws of the contract governing the terms of our engagement.

Chile. You understand and agree that ANZ Banking Group Limited is not regulated by Chilean Authorities and that the provision of ANZ Research is not subject to any Chilean supervision and is not guaranteed by any regulatory or governmental agency in Chile.

European Economic Area (EEA): ***United Kingdom.*** ANZ is authorised in the United Kingdom by the Prudential Regulation Authority (**PRA**) and is subject to regulation by the Financial Conduct Authority (**FCA**) and limited regulation by the PRA. Details about the extent of our regulation by the PRA are available from us on request. This document is distributed in the United Kingdom by Australia and New Zealand Banking Group Limited ANZ solely for the information of persons who would come within the FCA definition of "eligible counterparty" or "professional client". It is not intended for and must not be distributed to any person who would come within the FCA definition of "retail client". Nothing here excludes or restricts any duty or liability to a customer which ANZ may have under the UK Financial Services and Markets Act 2000 or under the regulatory system as defined in the Rules of the Prudential Regulation Authority (**PRA**) and the FCA. ANZ is authorised in the United Kingdom by the PRA and is subject to regulation by the FCA and limited regulation by the PRA. Details about the extent of our regulation by the PRA are available from us on request.

Fiji. For Fiji regulatory purposes, this document and any views and recommendations are not to be deemed as investment advice. Fiji investors must seek licensed professional advice should they wish to make any investment in relation to this document.

Hong Kong. This publication is issued or distributed in Hong Kong by the Hong Kong branch of ANZ, which is registered at the Hong Kong Monetary Authority to conduct Type 1 (dealing in securities), Type 4 (advising on securities) and Type 6 (advising on corporate finance) regulated activities. The contents of this publication have not been reviewed by any regulatory authority in Hong Kong.

Important notice

India. If this document is received in India, only you (the specified recipient) may print it provided that before doing so, you specify on it your name and place of printing.
Myanmar. This publication is intended to be general and part of ANZ's customer service and marketing activities when implementing its functions as a licensed bank. This publication is not Securities Investment Advice (as that term is defined in the Myanmar Securities Transaction Law 2013).
New Zealand. This material is for information purposes only and is not financial advice about any product or service. We recommend seeking financial advice about your financial situation and goals before acquiring or disposing of (or not acquiring or disposing of) a financial product.
Oman. ANZ neither has a registered business presence nor a representative office in Oman and does not undertake banking business or provide financial services in Oman. Consequently ANZ is not regulated by either the Central Bank of Oman or Oman's Capital Market Authority. The information contained in this document is for discussion purposes only and neither constitutes an offer of securities in Oman as contemplated by the Commercial Companies Law of Oman (Royal Decree 4/74) or the Capital Market Law of Oman (Royal Decree 80/98), nor does it constitute an offer to sell, or the solicitation of any offer to buy non-Omani securities in Oman as contemplated by Article 139 of the Executive Regulations to the Capital Market Law (issued vide CMA Decision 1/2009). ANZ does not solicit business in Oman and the only circumstances in which ANZ sends information or material describing financial products or financial services to recipients in Oman, is where such information or material has been requested from ANZ and the recipient understands, acknowledges and agrees that this document has not been approved by the CBO, the CMA or any other regulatory body or authority in Oman. ANZ does not market, offer, sell or distribute any financial or investment products or services in Oman and no subscription to any securities, products or financial services may or will be consummated within Oman. Nothing contained in this document is intended to constitute Omani investment, legal, tax, accounting or other professional advice.
People's Republic of China (PRC). This document may be distributed by either ANZ or Australia and New Zealand Bank (China) Company Limited (**ANZ China**). Recipients must comply with all applicable laws and regulations of PRC, including any prohibitions on speculative transactions and CNY/CNH arbitrage trading. If this document is distributed by ANZ or an Affiliate (other than ANZ China), the following statement and the text below is applicable: No action has been taken by ANZ or any affiliate which would permit a public offering of any products or services of such an entity or distribution or re-distribution of this document in the PRC. Accordingly, the products and services of such entities are not being offered or sold within the PRC by means of this document or any other document. This document may not be distributed, re-distributed or published in the PRC, except under circumstances that will result in compliance with any applicable laws and regulations. If and when the material accompanying this document relates to the products and/or services of ANZ China, the following statement and the text below is applicable: This document is distributed by ANZ China in the Mainland of the PRC.
Qatar. This document has not been, and will not be:

- lodged or registered with, or reviewed or approved by, the Qatar Central Bank (**QCB**), the Qatar Financial Centre (**QFC**) Authority, QFC Regulatory Authority or any other authority in the State of Qatar (**Qatar**); or
- authorised or licensed for distribution in Qatar,

and the information contained in this document does not, and is not intended to, constitute a public offer or other invitation in respect of securities in Qatar or the QFC. The financial products or services described in this document have not been, and will not be:

- registered with the QCB, QFC Authority, QFC Regulatory Authority or any other governmental authority in Qatar; or
- authorised or licensed for offering, marketing, issue or sale, directly or indirectly, in Qatar.

Accordingly, the financial products or services described in this document are not being, and will not be, offered, issued or sold in Qatar, and this document is not being, and will not be, distributed in Qatar. The offering, marketing, issue and sale of the financial products or services described in this document and distribution of this document is being made in, and is subject to the laws, regulations and rules of, jurisdictions outside of Qatar and the QFC. Recipients of this document must abide by this restriction and not distribute this document in breach of this restriction. This document is being sent/issued to a limited number of institutional and/or sophisticated investors (i) upon their request and confirmation that they understand the statements above; and (ii) on the condition that it will not be provided to any person other than the original recipient, and is not for general circulation and may not be reproduced or used for any other purpose.

Singapore. This document is distributed in Singapore by the Singapore branch of ANZ solely for the information of "accredited investors", "expert investors" or (as the case may be) "institutional investors" (each term as defined in the Securities and Futures Act Cap. 289 of Singapore). ANZ is licensed in Singapore under the Banking Act Cap. 19 of Singapore and is exempted from holding a financial adviser's licence under Section 23(1)(a) of the Financial Advisers Act Cap. 100 of Singapore. In respect of any matters arising from, or in connection with, the distribution of this publication in Singapore, please speak to your usual ANZ contact in Singapore.

United Arab Emirates (UAE). This document is distributed in the UAE or the Dubai International Financial Centre (**DIFC**) (as applicable) by ANZ. This document does not, and is not intended to constitute: (a) an offer of securities anywhere in the UAE; (b) the carrying on or engagement in banking, financial and/or investment consultation business in the UAE under the rules and regulations made by the Central Bank of the UAE, the Emirates Securities and Commodities Authority or the UAE Ministry of Economy; (c) an offer of securities within the meaning of the Dubai International Financial Centre Markets Law (DIFCML) No. 12 of 2004; and (d) a financial promotion, as defined under the DIFCML No. 1 of 200. ANZ DIFC Branch is regulated by the Dubai Financial Services Authority (**DFSA**) ANZ DIFC Branch is regulated by the Dubai Financial Services Authority (**DFSA**). The financial products or services described in this document are only available to persons who qualify as "Professional Clients" or "Market Counterparty" in accordance with the provisions of the DFSA rules.

United States. Except where this is a FX- related document, this document is distributed in the United States by ANZ Securities, Inc. (**ANZ SI**) which is a member of the Financial Regulatory Authority (**FINRA**) (www.finra.org) and registered with the SEC. ANZSI's address is 277 Park Avenue, 31st Floor, New York, NY 10172, USA (Tel: +1 212 801 9160 Fax: +1 212 801 9163). ANZSI accepts responsibility for its content. Information on any securities referred to in this document may be obtained from ANZSI upon request. This document or material is intended for institutional use only – not retail. If you are an institutional customer wishing to effect transactions in any securities referred to in this document you must contact ANZSI, not its affiliates. ANZSI is authorised as a broker-dealer only for institutional customers, not for US Persons (as "US person" is defined in Regulation S under the US Securities Act of 1933, as amended) who are individuals. If you have registered to use this website or have otherwise received this document and are a US Person who is an individual: to avoid loss, you should cease to use this website by unsubscribing or should notify the sender and you should not act on the contents of this document in any way. Non-U.S. analysts: Non-U.S. analysts may not be associated persons of ANZSI and therefore may not be subject to FINRA Rule 2242 restrictions on communications with the subject company, public appearances and trading securities held by the analysts. Where this is an FX-related document, it is distributed in the United States by ANZ's New York Branch, which is also located at 277 Park Avenue, 31st Floor, New York, NY 10172, USA (Tel: +1 212 801 916 0 Fax: +1 212 801 9163).

Vietnam. This document is distributed in Vietnam by ANZ or ANZ Bank (Vietnam) Limited, a subsidiary of ANZ.

This document has been prepared by ANZ Bank New Zealand Limited, Level 10, 171 Featherston Street, Wellington 6140, New Zealand, Ph 64 4 382 1992, e-mail nzeconomics@anz.com, http://www.anz.co.nz.