ANZ Research

Half-Year Update 2022 Preview

6 December 2022

This is not personal advice nor financial advice about any product or service. It does not take into account your financial situation or goals. Please refer to the Important Notice

Contact

Miles Workman or David Croy for more details.

When less is more

Summary

- When the Treasury updates its economic forecasts next week we expect to see more inflation (including via wages) and less economic activity.
- The fiscal forecasts are expected to be weaker too. It's likely the forecast for a return to surplus will be delayed by a year (to the 2026 fiscal year). If so, that'll still be deemed a tick through the lens of the Government's updated (looser) fiscal strategy.
- Given the Treasury's forecasts were likely finalised before the (hawkish) November MPS, chances are they will include a slightly less aggressive interest rate outlook than most forecasters currently. If so, that could add a touch of downside risk to both their economic and fiscal outlooks.
- Current inflation pressures are making it more expensive to deliver key government services. That adds to the possibility that the Government increases its spending allowances. However, if they are concerned about what additional spending will do to inflation pressures (and therefore interest rates) they may look for reprioritisations instead. Further, the whopping $4.5bn operating allowance earmarked for Budget 2023 should be large enough to accommodate rising costs (pre-commitments against this were less than $2bn at Budget 2022).
- From a macroeconomic policy perspective, it's time for fiscal policy to 'cool the jets'. Not only is the Government running structural deficits against a positive output gap (not helpful from an inflation perspective), but NZ's growing external imbalance, evidenced by the rapidly widening current account deficit, makes the broad economy more vulnerable to correction. Fiscal consolidation would go a long way to helping ease these imbalances, as well as saving ammo for inevitable tougher times ahead.
- Turning to NZDM's bond issuance guidance, we're expecting a higher funding requirement, and therefore a bump in bond guidance as follows.

Bond issuance guidance ($bn)

	Jun-23	Jun-24	Jun-25	Jun-26	Jun-27	Total (23-26)
Budget 2022	25	25	25	15	NA	90
2022 Half-Year Update (ANZ expectation)	30	30	30	18	18	108

Source: NZDM

- Given the above, we expect NZDM to up the pace of bond issuance (when the tender schedule for January is released 15 December) and signal an intention to undertake two more syndications this fiscal year.
- We do not expect the already-signalled pace of quantitative tightening (buying back LSAP bonds from the RBNZ) to change from $5bn per year. Any changes would need to be agreed on with the RBNZ, and we think there's too much value in the current set-and-forget (at $5bn) strategy to start tweaking things.

The detail

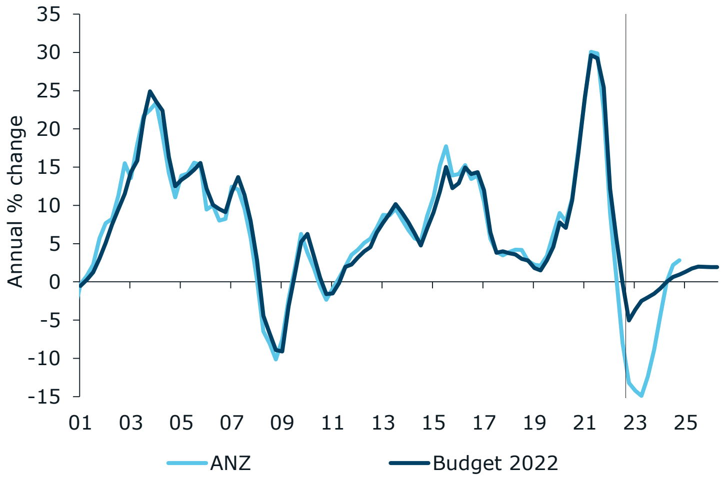
On 14 December, the Treasury will open up the Government's books once again and produce a fresh set of economic and fiscal forecasts. Meanwhile, the Minister of Finance will release the Budget Policy Statement, setting out the priorities and objectives that will guide the Government's decisions in Budget 2023.

The Treasury's updated economic outlook is expected to have more near term inflation, higher interest rates, and less economic activity…

Key developments since the Budget Update include:

- Higher inflation, with annual headline CPI running at 7.2% in Q3 vs the Budget Update forecast of 6.5%.
- Ordinary time hourly earnings coming in at 7.4% y/y in Q3 vs the Budget forecast of 5.2% - implying much more domestic inflation.
- The 90-day interest rate averaging 3.5% over Q3 vs the Budget forecast of 2.4%, implying the OCR was around 100bps higher in Q3 than the Budget forecast.
- House prices falling around 12% from their peak by October (figure 1). The Budget Update forecast was for a total fall of around 7% by June 2023 – our updated forecast is for a peak to trough decline of 22%.
- The level of nominal GDP (which is what matters for tax) came in around $1.3bn lower in Q2 compared to the Treasury's forecast. But most of that can be explained by data revisions and a $1bn forecast miss in Q1. Neither of these should have implications for the tax outlook given the tax take for this period is known.

Figure 1. House price forecast



Source: REINZ, CoreLogic, The Treasury, ANZ Research

Turning to the outlook, the Treasury's economic forecasts would have been finalised around 10 November (ie around the same time as last year), meaning they will pre-date the November MPS. That means it's likely that their interest rate outlook is slightly less aggressive than most forecasters now expect. Given this, the Treasury's forecasts probably have a slightly more optimistic vibe to them compared to the RBNZ's – if so, risks will be skewed to the downside (on both the economic and fiscal front). But we do note that given the Treasury was forecasting sluggish growth of just 0.1% q/q in Q2, Q3 and Q4 2023 in the Budget Update, the hurdle is pretty low for them to now forecast recession over this horizon. Even if they don't go that far, we think that'll be the direction of travel for their activity forecasts.

But while revisions to the outlook for real activity look pretty clear-cut (down) since Budget, things are a little less certain when it comes to the outlook for nominal GDP. That's because there seems to be a lot more inflation in the system than previously expected, and a higher price outlook will be at least a partial offset to weaker activity. That's by no means a good news story for people on the street, but tax revenues and the denominator in key fiscal ratios (eg debt to GDP) don't discriminate. By our estimates (it's a guess really), we think weaker activity will dominate over the medium term (after looking through data revisions), meaning a softer nominal economy.

It's also important to note that stronger inflation also puts upwards pressure on Government expenses, with most main benefits indexed to wage growth, and higher interest rates adding to the Government's financing costs. That means the net fiscal impacts of high inflation can be a little ambiguous. The Treasury provided a handy box on this in the Budget Update. Within that box, this paragraph stands out:

> *The Government has signalled a Budget operating allowance of $4.5 billion for Budget 2023 and $3.0 billion each for Budget 2024 and Budget 2025. As well as meeting the impact from cost pressures in the future, Budget allowances are also expected to manage the fiscal impact from the new policy decisions by the Government.*

The big question is whether the Government will stick to these signalled allowances or choose to lift government spending because of inflation. It's certainly possible to stick to these allowances, but that will mean making harder choices than otherwise. But as we note in the macroeconomic context section (page 7), economic conditions simply aren't ripe for further government expansion. Our working assumption is that the Government chooses to live within the operating allowances outlined at Budget, but there could be more capital spending added to the multi-year envelope.

…and that's likely to see a weaker fiscal outlook over the medium term

For the fiscal forecasts, the year to June 2022 is now an 'actual', and it's a much better starting point than forecast at the Budget Update:

- Total Crown revenue came in $5.8bn above forecast, with core Crown revenue $4.6bn above.
- Total Crown expenses came in $3.9bn lower than forecast, with core Crown expenses $2.8bn lower.
- Reflecting this, the total Crown OBEGAL deficit of $9.7bn (which is still a very big deficit) was a whopping $9.3 narrower than forecast.
- The core Crown residual cash deficit of $27bn (which is also massive) was 4.7bn narrower than forecast.

That's a much stronger starting point, but the billion-dollar question is whether it will persist through the current (2023) fiscal year and beyond. The interim statements for the first four months of the current fiscal year (to October 2022) suggest a lot of this is temporary. Indeed, the fiscals for the first few months of the 2023 fiscal year have come in very close to forecast:

- Core Crown tax revenue was just $62m below forecast;
- Core Crown expenses were $0.5bn above forecast;
- The OBEGAL deficit of $2.8bn was $300m narrower than forecast.

However, the core Crown residual cash deficit of $12.8bn was $1.3bn wider than forecast, which is getting up there. Higher interest costs, higher health spending, but lower investment flows are the underlying drivers here. We can be confident higher interest costs will persist in the updated forecast, but the rest could be a timing story.

Indeed, the details of the October statements contained only a few clues as to what's likely to be carried through to the Treasury's updated outlook:

- finance costs were $0.5bn higher than expected by October, reflecting higher interest rates than expected – the rates outlook has only gone one way since Budget.
- GST revenue was $0.2bn below forecast (the Treasury signalled this may persist, given headwinds to consumer spending).

For the remaining overs and unders in the details, it's difficult to gauge if the variance to forecast is just timing, or something else.

There is also uncertainty around the other indirect taxes variance of $0.2bn as at October. This reflects the Government's decision to extend the temporary reduction to fuel excise duty and road user charges. Unless told otherwise by the Government, the Treasury's forecasts will assume that this tax relief will end at the current stated date of 31 January (the same end date as half-price public transport), and that implies revenues over the coming months will be downgraded a smidgen (all else equal), but won't carry through to the next fiscal year.

Putting it all together, there will likely be some inflation-induced pressure to bump up spending slightly for the current fiscal year (to June 2023). But that would be on top of a goliath $5.9bn operating allowance, so perhaps the Government will choose to look for reprioritisations instead (seeking to avoid putting further upwards pressure on interest rates). Beyond the current fiscal year, we think the Government should have room in the operating allowance for Budget 2023 ($4.5bn) to manage the higher cost of delivering public services. Allowances for Budget 2024 and beyond (at $3bn) should not yet come under pressure, but they are likely to do so as the time approaches. Broadly, if we do see an upgrade in operating spending in the Half-Year forecasts, we don't think it'll be large – possibly up to $1bn overall. That would still be a touch more stimulus for the RBNZ to offset with a higher OCR though.

The multi-year capital allowance is a tougher one to predict. There was $5.1bn set aside at Budget 2022 for Budgets 2023 to 2025, which implies an average of just $1.7bn for new capital spending in each of those years – pretty small compared to the $4.7bn allocated in Budget 2022! Of course the extension of the Treasury's forecast horizon (out one year to June 2027) means more capital spending will enter the multi-year envelope, and we suspect it could be a greater bump than $1.7bn. Indeed, this won't have much impact on the Government's OBEGAL (with the associated interest cost the only major implication for opex), and the net debt ceiling is so far away that any debt implications are unlikely to factor into decision making (for better or worse).

However, once again, any bump in capital spending will be more stimulus for the RBNZ to hike against, so the Government has a big value judgement to make: is their spending worth the extra interest costs imposed on households and businesses, and worth the extra burden on tax payers? And to what degree would it crowd out private sector activity?

In aggregate, spending increases in a capacity-stretched economy tend to be higher cost, and lower benefit. But there are also always good arguments to 'look through' the business cycle and just get on with it.

Then there's the Climate Emergency and Response Fund, which could be topped up from sources other than ETS revenue if the Government chooses. Yet another potential source of surprise on the day.

Speaking of revenue, this is where we see potential for some of the largest forecast revisions. That's a tax story, which is ultimately a weaker economy story. It's very hard to gauge what this could be worth in dollar terms (we have enough trouble putting together our own forecast, let alone guessing the Treasury's), but a negative impact of $1-2bn from the year ended June 2024 onwards is what falls out of our back-of-the-envelope.

In terms of the OBEGAL, it'll probably be touch and go if the eventual return to surplus is still forecast to occur in the year to June 2025 (as at Budget). At $2.6bn, this was definitely light enough to get blown away in the winds of an economic outlook revision. We suspect this has probably been pushed out to the following fiscal year (to June 2026).

Ironically, the new net debt measure (which includes NZSF assets) will look worse at the starting point ($70.1bn in the four months to October vs the Budget forecast of $66.6bn) largely because of valuation changes across the newly included assets. This higher profile is likely to persist over the forecast horizon, particularly as a share of GDP as we expect the latter to be downgraded on both historical revisions and a weaker outlook. But given the Government no longer has an explicit debt target (just an operating balance target), we no longer see this as a binding constraint on discretionary fiscal policy decisions. Net debt will be forecast to be well under the 30% of GDP 'ceiling' over the entire forecast.

NZDM expected to upgrade bond issuance guidance

As always, there's a lot to consider when it comes to guessing NZDM's bond issuance guidance:

- We know there will be a touch more funding pressure on NZDM now that Kainga Ora will no longer issue under its own name (check out this helpful Q&A for more details). This is expected to add around $3bn to NZDM's funding requirement for the current fiscal year (including refinancing the $300m June 2023 maturity). There is currently $7.6bn of HNZ bonds on issue, with the next maturity ($1.9bn) in June 2025. Further announcements are expected next year regarding how this will be managed. So for now, we only see implications for 2022/23 issuance guidance.
- We assume the Government will live within the operating allowances set at Budget 2022, but a touch more capital spending may be on the cards. We've allowed for around $1bn of extra funding per fiscal year for this.
- Interest rates have surprised to the upside since the Budget Update. That means less cash in the door for a given face value of bonds that go out. We estimate this will add around $1bn to the funding requirement in any given fiscal year.
- Changes to the Treasury's economic and fiscal outlook have the potential to drive very significant changes to the Government's funding requirement. We expect this to add to NZDM funding pressure.
- NZDM's funding programme already incorporates a running down of its liquid assets over the coming years. We don't expect any change to this strategy or the pace of run-down.

Weighing it all up, we see bond issuance guidance being upgraded by around $3-5bn in each year. Our analysis lands on $29bn programmes for the next three years, and $19bn thereafter. But NZDM tends to round to the nearest $2bn or $5bn, and that suggests either $28bn for 2023-25, followed by $20 for 2026 and 2027, or $30bn for 2023-25, followed by $18bn for 2026 and 2027. We've gone with the latter as a central pick, on the expectation that NZDM will see the risks around the funding requirement as being skewed higher.

In the year to June 2023, higher issuance largely reflects Kainga Ora funding and higher interest rates. From the year to June-2024 onwards, we assume no Kainga Ora impact (we'll just have to wait for the work to be done on this), but higher funding pressures on the back of a weaker economic outlook and higher interest rates, as well as a touch more capex.

And of course, NZDM can deal with any overs and unders via its flexible approach to T-bill issuance. That adds an additional layer of uncertainty to our expectation, but also makes it more likely that issuance guidance will be relatively stable at nice round numbers. For the extra fiscal year, we think this will be held flat at $18bn. That makes sense to us given the skew of risks and NZDM's preference for stability, but a strong forecast cash surplus for that year could see it come in lower.

Table 1. Bond issuance guidance ($bn)

	Jun-23	Jun-24	Jun-25	Jun-26	Jun-27	Total (23-26)
Budget 2022	25	25	25	15	NA	90
2022 Half-Year Update (ANZ expectation)	30	30	30	18	18	108

Source: NZDM

Stepping back from the above, we see risks as skewed towards *actual* issuance coming in higher than NZDM's guidance. Another economic crisis may not be far away, there is increased flexibility in the Government's fiscal rules, and there could be more refinancing from Kainga Ora to incorporate in the future.

What does this mean for the pace of bond issuance and syndications?

The next couple of paragraphs are likely to only be of relevance to market participants. But they are important and the numbers are big.

Given forecast bond programmes, we are pencilling in an increase in the pace of issuance to $500m per tender, and think NZDM will likely do two more syndications in the current fiscal year. That's based on our view that the market seems comfortable enough absorbing $400-$500m of bonds a week. Weekly issuance was greater during 2020 and 2021, but of course QE was supporting the bond market back then. NZDM can't count on QE any more, and will be eager to avoid undersubscribed tenders, as occurred for the first time in a decade last week.

NZDM has issued $8bn of bonds via tender so far this fiscal year. If we add the $5.5bn of syndicated issuance to that, and assume full allotment of the final two tenders scheduled for December, that'll take fiscal YTD issuance to $14.3bn. Assuming a $30bn bond programme and 23 more tenders over the second half of the fiscal year (that's what's implied if NZDM resumes tendering from 12 January and they cancel tenders on syndication weeks), that'll leave $6.5bn of funding to do if tenders remain at $400m a week, or $4.2b of funding if tenders are upped to $500m week. So we think a couple more syndications make sense. They could opt for just one, but we think it makes more sense to play it safe, and go for two, and take pressure off the pace of weekly issuance, which would be pretty "hot" at $500m per week.

As to which bonds NZDM will syndicate, we think it makes sense to bring a new May 2030 bond to market to fill the gap between the 29s and 31s. There are currently no bonds maturing in the 2029/30 fiscal year, and a May 2030 would close that gap and align with a corresponding ACGB. The second syndication is likely to be a tap of the 26s or 28s, both of which have significant headroom to their respective tranche caps, but a limited window within which to issue.

Looking ahead, NZDM will need to fill gaps further out on the curve too, but they'll arguably be in no hurry to do that given the likelihood of two or three syndications per fiscal year for the foreseeable future. Indeed, accounting for the customary issuance recess over the holidays, NZDM will probably hold 49 tender per fiscal year. If two or three of those are cancelled for syndications, and they issue $500m of bonds a week, that'll leave $7-7.5bn of bonds to be issued via syndications. That could be filled via two or three syndications, depending on what maturities NZDM want to target (getting a larger syndication of 5 year bonds away is likely to be easier than getting a larger volume of 25 year bonds away).

The macroeconomic landscape and broad fiscal settings

Economists and policy makers alike misdiagnosed the economic implications of the pandemic, and because of that both fiscal and monetary policy were, with hindsight, much too stimulatory for the conditions. As a result, the economy is now out of balance, and needs to correct to a sustainable path. Fiscal policy has a role to play, but difficult choices lie ahead.

Inflation

Inflation has hit a multi-decade high. And it's not just 'global forces' such as war in Ukraine driving it. Domestic (non-tradable) inflation hit a record pace in Q3, and it may still be accelerating. This was initially driven by surging housing-related costs, but the persistence in the broad domestic inflation impulse now stems from the wage-price spiral that's been allowed to develop. Indeed, the labour market has tightened beyond the bounds of what's deemed sustainable and that puts both inflation and broader economic stability at risk.

So while a super-strong labour market certainly has its good side in terms of offering opportunities to those who would otherwise miss out, in the long run, running things hot doesn't tend to pay off. The eventual transition from boom to bust tends to be deeper and more persistent than if the business cycle were smoother, hurting those same vulnerable people the most. Getting away with a 'shallow' recession (as the RBNZ is forecasting) might well be the optimistic scenario in that context.

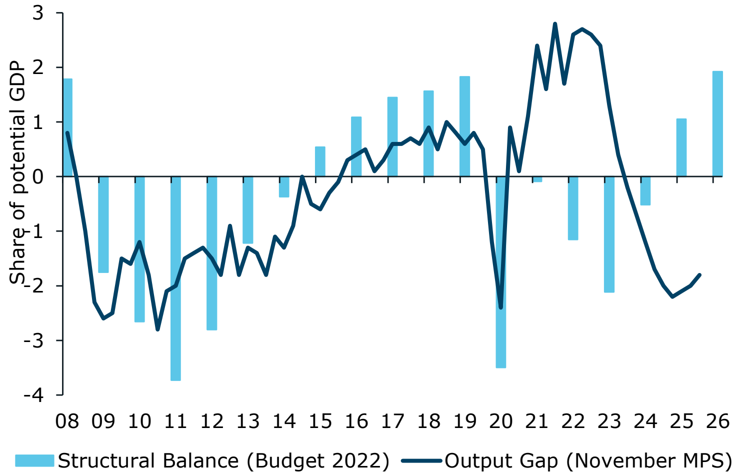
The bottom line: if there isn't any spare economic resource (labour and capital) available to meet current demand, the Government probably shouldn't be adding stimulus (higher spending or tax cuts). In fact, there is no better time to consolidate the fiscal position by raising taxes or cutting spending. That wouldn't be very popular of course, but it would mean the RBNZ doesn't need to squeeze households by as much. There is no free lunch.

The output gap is an estimate of spare capacity in the economy. When it's positive, the economy is trying to grow faster than resources will permit without generating higher inflation. When that's the case, fiscal stimulus adds more to the inflation pulse than it does to growth, causing the RBNZ to lift the OCR by more than it otherwise would. Under these conditions, not only does fiscal stimulus carry implications for the tax payer; anyone with a loan will also be paying an indirect cost.

In figure 2 we show the RBNZ's output gap estimate against the Treasury's structural balance estimate from May's Budget Update. The structural balance takes the operating balance, strips out automatic stabilisers (eg higher/lower tax revenue and lower/higher social assistance spending when the economy is running hot/cold) and strips out big one-offs, such as spending associated with natural disasters (eg Canterbury earthquakes) and wage subsidy payments. What's left is a balance estimate that reflects the more BAU discretionary policy choices the Government is making in the context of the economic cycle.

While the output gap and structural balance are inter-related by definition[1], the key takeout from this chart is that there has been a post-pandemic step change in fiscal settings. That is, until 2021 structural deficits occurred when there was spare capacity (a negative output gap) to accommodate them, and structural surpluses were run when there was no spare capacity in the economy (a positive output gap). Post 2021, that relationship has been turned on its head.

Figure 2. Structural balance vs output gap



Source: The Treasury, RBNZ, ANZ Research

External imbalances

The current account deficit has widened significantly after New Zealand closed the door to our largest export earner (tourism) and over-stimulated domestic demand saw imported goods soar. As at Q2, the annual deficit had widened to 7.7% of GDP, and data for Q3 out 14 December (same day as the Half-Year Update) is expected to show it widening further. That level of dependence on foreign capital hasn't been seen since before the Global Financial Crisis (GFC).

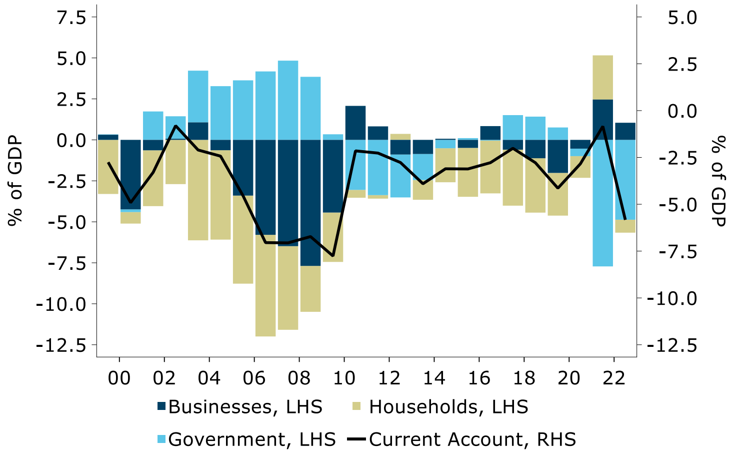
Cut another way, the current account also represents an economy's savings-investment balance. When domestic savings aren't enough to meet investment demand, a country can turn to foreign markets to access capital, causing the current account deficit to widen. It's important to note that current account deficits aren't a bad thing in and of themselves. For example, using foreign capital to invest in good productive projects has the potential to benefit all parties. But when dependency on foreign capital gets too high, the chances of a misallocation of capital, and therefore a nasty correction in the broader economy, are higher.

[1] For example, a positive output gap will make a cyclically-adjusted fiscal deficit look wider because it's stripping out lower automatic stabilisers (eg social assistance payments) and any tax windfall associated with a strong economy.

Unlike the pre-GFC era, when it was the savings-investment balance of households and businesses behind wide deficits, the recent experience has been facilitated primarily by the government sector (figure 3), which shielded households and businesses by taking the hit to economic activity from lockdowns onto its balance sheet. It worked, too, with the economy coming out the other side running too hot. But it's obviously not sustainable.

The good news is that fiscal consolidation combined with a softer pace of household spending and the ongoing recovery in international tourism means we can be confident that the current account deficit will narrow in time. But higher-for-longer global interest rates represent a significant risk to the income deficit, as that would keep New Zealand's debt-serving burden higher than otherwise.

Figure 3. Contributions to current account by sector[2]



Source: Stats NZ, Macrobond, ANZ Research

Clearly, the case for the Government to enter a more contractionary phase of discretionary spending choices is strong. It'll help the RBNZ solve the inflation problem and it'll help address New Zealand's external vulnerabilities. There are many shades of fiscal consolidation, and Budget 2022 was at the more stimulatory end, adding another big bump to spending. However, a balance does need to be found. Fiscal settings may have helped create the current inflation problem (which, ironically, has put additional pressure on government spending), but at the end of the day, core services still need to be delivered. And of course there is always a possibility that macroeconomic conditions turn faster than we expect, with spare capacity opening up and inflation falling sharply. In that instance, a lift in discretionary spending or tax cuts may well be appropriate (ignoring the long-run costs and challenges associated with an aging population and climate change).

All up, in this environment, it's difficult to foresee the Government making any meaningful reductions in spending; if anything we think risks are skewed towards further increases. Understandable, but it will mean higher interest rates than otherwise.

---

[2] See this note from the NZ Treasury for more on recent current account dynamics. Estimates for the year to March 2022 and March 2021 are provisional and based on experimental quarterly income GDP.

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 9 357 4094
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 4 802 2217
Email: natalie.denne@anz.com

Important notice

Last updated: 1 September 2022

This document (which may be in the form of text, image, video or audio) 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 click here or request from your ANZ point of contact.

Brazil. This document is distributed on a cross border basis and only following request by the recipient. No securities are being offered or sold in Brazil under this document, and no securities have been and will not be registered with the Securities Commission - CVM.

Brunei, 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.

Canada. This document is general information only, is intended for institutional use only – not retail, and is not meant to be tailored to the needs and circumstances of any recipient. In addition, this document is not intended to be an offer or solicitation to purchase or sell any security or other financial instrument or to employ a specific investment strategy.

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

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 document 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 document have not been reviewed by any regulatory authority in Hong Kong. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

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.

Israel. ANZ is not a holder of a licence granted in Israel pursuant to the Regulation of Investment Advising, Investment Marketing and Portfolio Management Law, 1995 ("Investment Advice Law") and does not hold the insurance coverage required of a licensee pursuant to the Investment Advice Law. This publication has been prepared exclusively for Qualified Clients as such term is defined in the First Schedule to the Investment Advice Law. As a prerequisite to the receipt of a copy of this publication a recipient will be required to provide confirmation and evidence that it is a Qualified Client. Nothing in this publication should be considered Investment Advice or Investment Marketing as defined in the Investment Advice Law. Recipients are encouraged to seek competent investment advice from a locally licensed investment adviser prior to making any investment.

Macau. Click here to read the disclaimer for all jurisdictions in Mandarin. **澳门. 点**击此处阅读所有司法管辖区的免责声明的中文版。

Myanmar. This document is intended to be general and part of ANZ's customer service and marketing activities when implementing its functions as a licensed bank. This document is not Securities Investment Advice (as that term is defined in the Myanmar Securities Transaction Law 2013).

Important notice

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 (**CBO**) or Oman's Capital Market Authority (**CMA**). 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. So, 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.

Peru. The information contained in this document has not been, and will not be, registered with or approved by the Peruvian Superintendency of the Securities Market (Superintendencia del Mercado de Valores, **SMV**) or the Lima Stock Exchange (Bolsa de Valores de Lima, **BVL**) or under the Peruvian Securities Market Law (Legislative Decree 6 861), and will not be subject to Peruvian laws applicable to public offerings in Peru. To the extent this information refers to any securities or interests, it should be noted the securities or interests may not be offered or sold in Peru, except if (i) such securities or interests were previously registered with the Peruvian Superintendency of the Securities Market, or (ii) such offering is considered a private offering in Peru under the securities laws and regulation of Peru.

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 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 document 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 Kingdom. 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 Financial Conduct Authority (**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 considers this document to constitute an Acceptable Minor Non-Monetary Benefits (**AMNMB**) under the relevant inducement rules of 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.

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 our website or have otherwise received this document and are a US Person who is an individual: to avoid loss, you should cease to use our 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 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 a 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 26, 23-29 Albert Street, Auckland 1010, New Zealand, Ph 64-9-357 4094, e-mail nzeconomics@anz.com, http://www.anz.co.nz