

Economic Overview.

One swallow does not a summer make.

February 2021



Economic Overview February 2021.

| | |
|------------------------------------|----|
| New Zealand economy | 01 |
| Global economy | 04 |
| Inflation and the RBNZ | 06 |
| Agricultural outlook | 08 |
| Exchange rates | 09 |
| Special topic: Going carb(on) free | 10 |
| Economic and financial forecasts | 11 |
| The economy in six charts | 12 |

Contributing authors

Dominick Stephens
Chief Economist
☎ +64 9 336 5671

Michael Gordon
Senior 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



Note from Dominick.

There has been a palpable shift in the mood around New Zealand. Businesses have been buoyed by the resilience of the economy, and a sudden lift in inflation has financial markets asking if the Reserve Bank might increase interest rates.

Our main message is that “one swallow does not a summer make”. The Covid shock to the economy is not over yet. The inflation spike is probably temporary. And we do not expect the Reserve Bank will lift interest rates before 2024.

In this quarter’s *Overview*, we have reached some surprising conclusions. GDP may have been strong recently, but we think the “summer without tourists” will cause a decline of 0.7% over the six months to March. We estimate that disruptions to global supply chains will cause inflation to spike to 2.5% by June this year, but that it will drop all the way back to 0.8% by June 2022. That’s partly because supply chains will normalise and partly because we anticipate a big lift in the exchange rate, to 78 cents against the USD. Finally, we point out that the housing shortages that have long dogged New Zealand are now rapidly receding thanks to booming construction activity.

The big constant is house prices. Every one of our *Economic Overviews* since August 2019 has warned that low mortgage rates would lead to rapid house price increases (although in the May 2020 edition we wrongly predicted that Covid would first cause a temporary price decline). Our thinking has not changed, and we are now forecasting 17% house price inflation in 2021. But by the same logic, we continue to warn that when interest rates do eventually rise, house prices will fall.

Finally, the Climate Change Commission has released its first report on how New Zealand could achieve its carbon reduction goals – this quarter’s special topic outlines how we think the economy will be affected.

Dominick Stephens - Chief Economist

New Zealand economy.

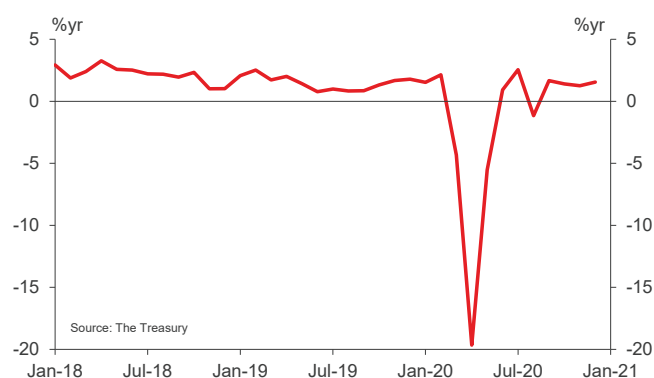
Rolling up our sleeves.

Economic activity bounced back sharply after last year's lockdown, but the absence of international tourism means that growth will be subdued this year. In fact, we think GDP has declined over the summer months. Household spending and a rapid catch-up in homebuilding activity will be the star performers this year. But the wider economic lift-off will have to wait until the border reopens, most likely in 2022.

By the end of 2020, the economic benefits of New Zealand's elimination strategy for Covid-19 were increasingly apparent. A range of indicators show that activity quickly rebounded as the country started to emerge from the lockdown earlier in the year. September quarter GDP blew away forecasts with a 14% rise, more than reversing an 11% fall in the previous quarter.

More recent data suggests some loss of momentum since then, although activity generally remains up on a year ago. Consumer and business confidence have lifted, job advertisements are rising, the housing market is booming, and housing construction continues to reach new highs. But traffic volumes, vehicle sales and spending on electronic cards have been coming off their highs in the last few months.

Figure 1: New Zealand Activity Index, annual change



The economy's resilience in the face of Covid-19 is most evident in the labour market. The unemployment rate dropped to 4.9% in the December quarter, against forecasts of an increase, and is now less than a percentage point above its pre-Covid level. This was a much lower peak than we expected. A wide range of data indicates that the labour market has reached a turning point, so we are forecasting that unemployment will be flat to falling from here.

However, there have been some big differences across sectors. Those affected by the closure of the international

border, such as retail, hospitality and transport, have in fact seen significant job losses over the last year. But this has been outweighed by growth in other areas, especially those linked to government spending such as health, education and public services. The other major area of jobs growth has been construction, which is enjoying booming demand and has been able to pick up workers displaced from other sectors. Differences in the economic fortunes of various sectors explain why we are hearing reports of skill shortages at the same time as unemployment has risen.

Figure 2: Unemployment rate and wage growth



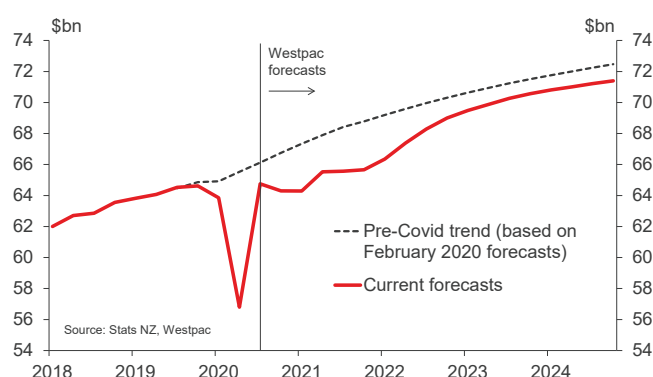
GDP remains below the path it was on before Covid hit, reflecting the loss of international travel and tourism resulting from the closure of the border since March. With the domestic economy having already recovered its lost ground, and tourism remaining out of action, further growth will be harder to come by in the coming year. By the end of 2021, we expect the level of GDP to be up just 2% on a year earlier.

With the domestic economy already regaining its lost ground, further growth will be harder to come by while the border remains closed.

Indeed, we could be in for a bumpy ride in the near term. Tourism is highly seasonal, and there is normally a strong net inflow of people into the country in the summer months. The absence of visitors was felt keenly in the December quarter, and will be even more so in the March quarter, which would have otherwise been the peak tourist season.

We estimate that the absence of overseas tourists cost the country around 2% of GDP in the September quarter, including the second-round effects on domestic spending and production. But that will rise to around 6% by the March quarter, when tourism normally peaks. This means that some of the upcoming data, once seasonally adjusted, will show the economy slowing or even going backwards. We're expecting overall GDP to shrink by 0.7% over the December and March quarters combined.

Figure 3: Quarterly GDP forecasts



The flipside is that normally we see a net outflow of people during the middle of the year, which drags down the level of activity. The absence of this effect means that GDP growth will be boosted in the June and September quarters. Looking through this disruption in seasonal patterns will be a challenge for markets, forecasters and policymakers over the next year.

We expect more robust economic growth next year, though the timing depends on virus and vaccine developments.

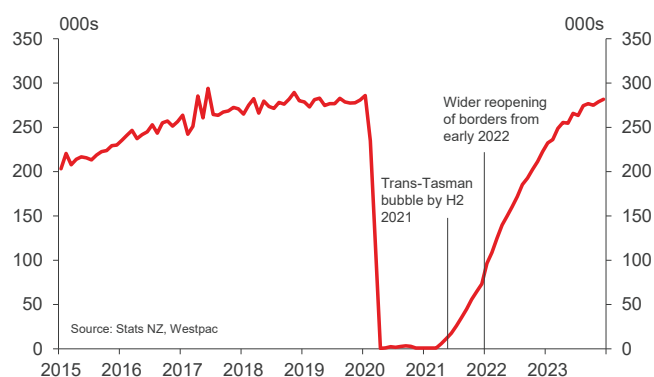
We expect more robust economic growth in 2022, when international tourism starts to recover. However, the timing around this is uncertain. Should the virus or vaccine situations change, we will update the expected timing of this economic lift-off phase.

The Government has said that it will look at a widespread reopening of the border once a high level of immunity has been reached within New Zealand – that is, it depends on the speed of the vaccination rollout here, rather than the rest of the world. Vaccines are expected to be available to the public

from July, which means that the desired level of coverage could be reached towards the end of the year. A two-way travel bubble with Australia could begin before this, but will depend on both countries' ability to deal with outbreaks and border failures as they occur. The Government previously set a goal of establishing a bubble by the end of March, but the risks are towards a later start.

Once international travel resumes, we expect to see a strong initial bounce in tourist numbers, particularly from Australia. Long-haul travel is likely to see a more gradual recovery, and a return to pre-Covid levels could be several years away.

Figure 4: International visitor arrivals



With tourism out of action for now, economic growth over the next year will inevitably be driven by domestic forces, with household spending taking the lead. New Zealand's rapid bounceback from the Covid-19 lockdown helped to underpin employment and household incomes last year. At the same time, household spending patterns went through a significant shift. With overseas holidays off the table, spending was diverted towards household goods and home renovations, as well as in part an increase in saving.

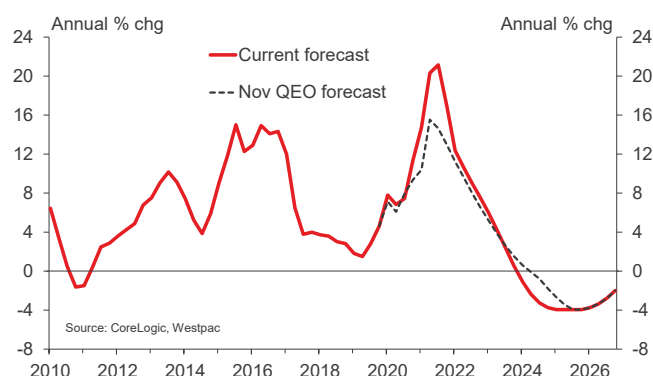
We expect moderate growth in household incomes this year. Labour market indicators point to further growth in jobs, but we expect wage growth to remain subdued this year. Solid agricultural prices will also provide a boost to rural incomes. Fiscal support to households has moved away from direct transfers, and is now coming through more in the form of rising public sector employment.

What will play the biggest role in household spending appetites, however, is the red-hot housing market. House prices are now screaming higher, with a 9% increase in the last three months of 2020 alone. Our analysis has long shown that financial factors, and in particular interest rates, are by far the biggest driver of house prices. And with mortgage rates at record lows, there is scope for further significant gains in prices.

We're forecasting a further 17% rise in house prices over this year – a very strong pace compared to history, but implicitly a slowdown from the current monthly pace. We believe that mortgage rates have reached their lows for this cycle, with long-term interest rates now starting to head higher as global

economic sentiment improves. The impact will become greater as the prospect of OCR hikes draws closer; we expect house price inflation to turn negative by 2024.

Figure 5: House price forecasts



Rising house prices have rapidly become a social and political flashpoint, with the Government pledging to take “bold action” on both housing demand and supply. We regard the options as limited. The Reserve Bank’s tightening of loan-to-value restrictions will have some dampening effect on prices, but historically it has been a small one. The Government has ruled out many of the options regarding the tax treatment of property, such as a capital gains tax. However, one remaining possibility is to limit the deductibility of interest for property investors, which could have an impact on prices depending on how it was applied. We regard this as a downside risk to our house price forecast.

As for housing supply, the ground has already shifted. The construction sector turned out to be one of the surprise stars of 2020, and with dwelling consents soaring to new multi-decade highs, there is a strong pipeline of work for 2021 as well.

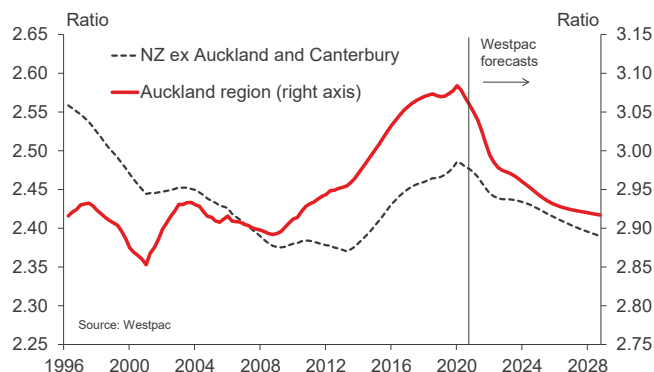
The severe housing shortages that have been dogging New Zealand are now rapidly eroding.

This building boom is coming at a time when population growth has plunged to its lowest rate in a decade. Net migration has been close to zero since Covid-19 struck, a far cry from the 70,000 net migrants the country received in 2019. This means that the severe housing shortages that have been dogging New Zealand for years are now rapidly eroding. By our estimates, housing shortages will continue to shrink even after migration resumes, because today’s level of construction activity is so much higher than what is needed to keep pace with population growth even in a normal year.

From a policy standpoint, it will be many years before anybody is saying that New Zealand has enough houses on the ground. Even so, the economic effects of having building so far in excess of population growth could become apparent

sooner. We expect to see rent inflation easing within a year. And this erosion of housing shortages is one reason that we expect house price inflation to start gradually cooling from later in 2021.

Figure 6: People per dwelling - a measure of housing shortages



The outlook for non-residential building and other investment is more mixed. The shift in fortunes as a result of Covid will have left some sectors in growth mode, while others face excess capacity. Moreover, the uncertain environment will continue to leave businesses cautious about making major commitments. We expect business investment to be a relatively slow-growing part of the economy this year.

Government spending is expected to remain a source of growth this year, even with the Covid response package starting to wind down. From a total allowance of \$62bn, only around \$52bn is now expected to be spent, with the remainder being held back in case of any future lockdowns or other shocks. What’s more, actual spending is proving to be lower than planned. Much of the response package had a focus on job creation, but in the absence of massive job losses this proved unnecessary.

At the same time, the rebounding economy has meant a much stronger tax take than forecast. Together, this has led to much smaller operating deficits than expected (though still large). We think that the Government will take advantage of this windfall by allocating some towards debt reduction, and some towards permanent increases in spending programmes such as health, education and social welfare. The Government’s bond issuance programme for the next few years will be reduced further, but we still expect net debt to reach a peak of around 40% of GDP next year.

Finally, exporters are relatively well positioned for growth this year. Growing conditions for the agricultural sector have been good and prices are favourable enough to encourage production, especially for dairy. Manufacturing and business services should see an improvement in demand as vaccines are rolled out globally and overseas economies start to reopen. The disruptions in global supply chains are being felt by our exporters too, leading to shipping delays and higher transport costs. However, we believe that these disruptions will be ironed out over time.

Global economy.

A shot in the arm.

The rapid development and rollout of Covid vaccines is giving the global economy a real shot in the arm. The turnaround in economic fortunes has been rapid and is gaining pace. However, while the economic improvement has been impressive to date, central banks are adamant that monetary stimulus will remain in place until economies have fully recovered.

Covid vaccine developments have been a game changer for the global economy. Since our November *Economic Overview*, three vaccines – Pfizer-BioNTech, Moderna and Oxford-AstraZeneca – have been approved for use in many key countries, and another two (Johnson & Johnson and Novavax) are in their phase III trials and nearing approval. And it's fair to say that the pace of vaccine development has been surprisingly fast and the efficacy surprisingly high.

Vaccine development has been surprisingly fast and vaccine efficacy surprisingly high.

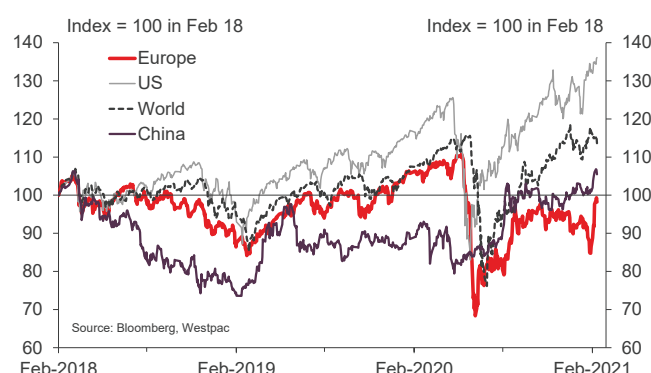
With vaccines in hand, most of the developed world have gotten their vaccination rollouts off to a fast start. Both the UK and US have hit the gas on their programmes so that they are now on track to reach ambitious short-term targets. The EU is a laggard, however, with supply constraints stifling the rollout and fuelling tensions with pharmaceutical providers.

Global sharemarkets have taken this positive vaccine news and run with it. The MSCI World Index, for example, is up 8.4% since the end of November. US sharemarkets have been on a particularly strong run over same period, with a further boost from the Biden victory in the US presidential election.

Similarly, global commodity prices have spiked higher, generating some long-absent price inflation. Oil prices have headlined the commodity price rise, surging over 50% since we published our last *Overview*. At the same time, and importantly for New Zealand, global food prices have been on a tear of their own, with the FAO World Food Price Index, for example, rising to its highest level since 2014. From here, we expect global commodity prices to lift a touch further this year, before moderating over 2022 and 2023. Specifically, we forecast Dubai crude prices to top out at US\$53/bbl this year, and then to fall to US\$45/bbl by the end of 2022. We expect New Zealand export commodity prices to follow roughly the same pattern.

The US economy is poised to turn the corner, and fast. President Biden is attempting to push through a massive fiscal stimulus package of the magnitude of US\$1.9 trillion. While we don't anticipate that he'll successfully pass a package of that size, a package of between US\$1.5 to US\$1.7 trillion is doable, and would still represent a sizeable boost to the US economy. Looking at the numbers, we expect the US economy to grow 4.4% and 4.5% over 2021 and 2022, respectively. That's in stark contrast to our forecasts from three months ago of 3.1% and 2.2% for the same years.

Figure 7: Selected global sharemarket indices



The US economic outlook has turned a corner: we now expect 4.4% growth over 2021, compared to our 3.1% forecast back in November.

On the vaccine front, President Biden is hitting his self-imposed targets. At the time of writing, the US had already provided at least one dose of vaccine to 25 million people (9.4% of the population). And at its current vaccination pace, the US will reach its target of 100 million doses by the 100th day of Biden's presidency. That would also allow the US to reach the all-important herd immunity threshold by mid-June.

Meanwhile, the Chinese economy continues to power along. After ending 2020 remarkably up on 2019 (and being the only major economy to grow over the year), we expect GDP growth of 10% in 2021. However, we expect growth to settle back to the more sedate annual pace of 5.7% in 2022.

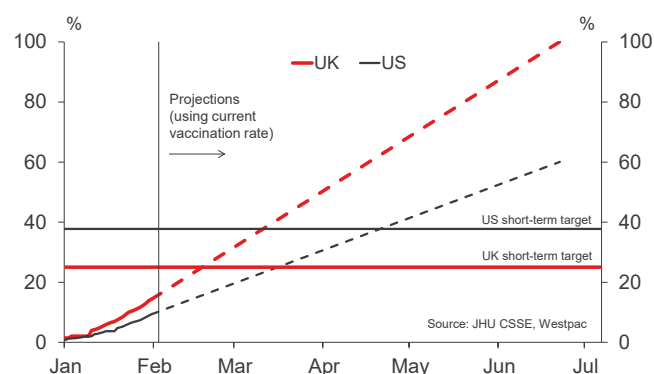
The key difference between China and the other major economic blocs is that China has had Covid effectively under control since mid-2020. As the economic momentum has continued into 2021 household spending has gathered steam and Chinese spending patterns are starting to normalise, with consumers gradually returning to public venues such as restaurants. Growth in South-East Asian economies is also not far behind. The combined rebound and normalisation of household spending is boosting demand for New Zealand exports.

The economic and Covid laggards are Europe and the UK. Europe continues to battle its third Covid wave, although new cases have begun to stabilise. This stabilisation follows sweeping lockdowns, many of which were extended early in the new year. For example, Germany's stringent restrictions, which were originally slated to unwind in January, have been pushed back to mid-February.

While slowing the rise in Covid cases, the lockdowns have come at a large economic cost, with Eurozone GDP contracting 0.7% in the December quarter. Nonetheless, the vaccine rollout will eventually bring relief to the European economy. Accordingly, we expect 4.0% and 3.5% growth this year and next, respectively.

Over the Channel in the UK, the short-term economic and health situations are similarly tough. However, the fast UK rollout of the vaccine offers more hope in terms of both an easing of the health crisis and a relatively quick economic turnaround. On the economy front, we expect growth of 5% or more in both 2021 and 2022 for the UK.

Figure 8: Covid vaccinations as % of population



As well as receiving a vaccine 'shot in the arm', key economies continue to receive massive monetary and fiscal policy support. And central banks are not withdrawing that support any time soon, despite the improved economic outlook and some signs of lifting inflation. In the US, we expect financial conditions to remain well-supported in 2021, and likely

through 2022. Indeed, the Federal Reserve has made it obvious that they are going to run the US economy hot even if inflation rises. The Reserve Bank of Australia has expressed a similar sentiment. Putting these statements into layman's terms, the two central banks are going to keep interest rates very low for a long time.

Central banks are adamant they will keep interest rates low for a long time.

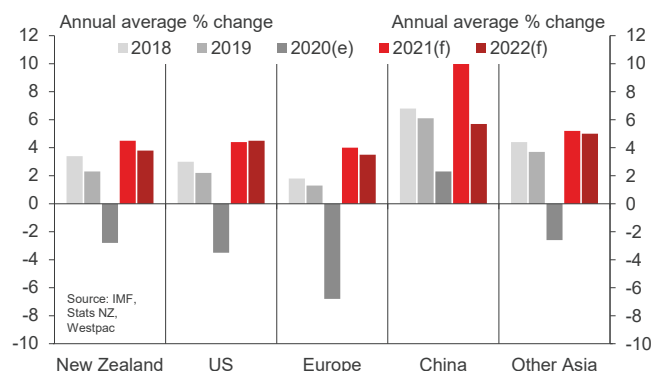
Turning to global trade policy, geopolitical tensions have remained high. In particular, Australian exports, including beef, wine and coal, have been on the wrong end of political disagreements between the Australian and Chinese governments.

As we pointed out in an article last year, we expect these issues to flare up from time to time as China uses its trade policies and economic leverage to achieve its broader goals. At the same time, a Biden presidency is likely to signal an increase in US-global engagement, although not necessarily an outright change in trade policy. In that sense, the global trade environment is no worse than 2020 and, at best, marginally better.

Global supply chain disruptions are also likely to continue in the short term. These disruptions are being reflected in global shortages of some goods and services such as shipping. More subtle changes to consumer spending have also occurred as consumption patterns have changed post-Covid. On balance, though, we judge that most of these shortages and the resulting inflation will prove temporary as global supply chains will eventually normalise.

All up, we anticipate that 2021 will mark a major turning point for the global economy. Vaccine rollouts also mean that the Covid economic recession now has a finite life.

Figure 9: Global GDP growth



Inflation and the RBNZ.

False positive.

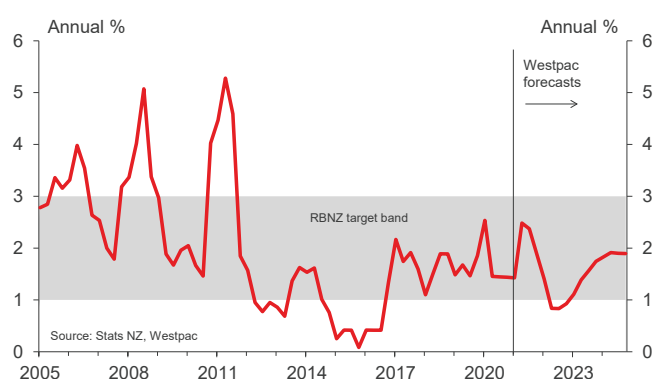
Inflation is set to lift to 2.5% by June this year, but we expect it will fall back to 0.8% in mid-2022. The RBNZ will look through the current spike in inflation, so we think OCR hikes are a long way off. However, with the economy now on firmer footing than previously anticipated, we expect that the RBNZ's quantitative easing programme will be tapered later this year, and that OCR hikes will begin from early-2024.

Movin' on up.

Inflation has been stronger than expected. In the wake of the Covid outbreak, both we and the Reserve Bank were braced for inflation to fall below the bottom of the 1 to 3% target band. However, consumer prices actually rose by 1.4% over the past year.

Two key factors have come together to squeeze prices higher. The first has been the faster than expected recovery in domestic demand. The other has been Covid related shipping delays and bottlenecks on wharves that have resulted in shortages of some imported goods. These factors came to a head during the peak Christmas shopping season, with upward pressure on prices for many consumer goods, as well as less discounting than normal for items like household durables.

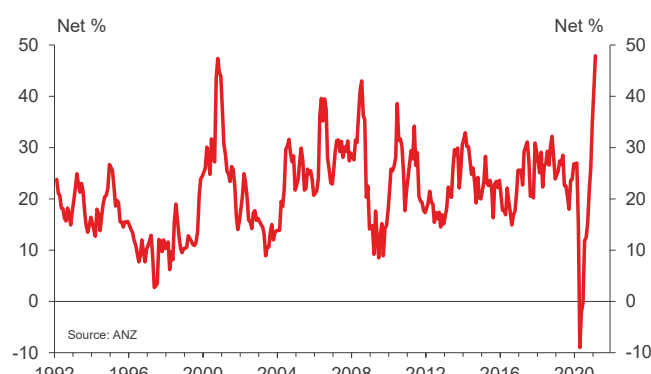
Figure 10: Consumer price inflation



We now expect inflation will rise to 2.5% by June 2021 on the back of continued supply chain disruptions and the resilience in domestic demand discussed in the *New Zealand Economy* section. Those conditions have already seen a massive surge in the number of businesses who are planning on raising their prices over the coming months, which has risen to its highest level in 28 years. As we've moved in to 2021 supply disruptions have extended beyond consumer goods, with businesses

in sectors like construction reporting rising operating costs due to difficulties sourcing materials. That comes on top of increases in the prices of many industrial commodities as the global economy has firmed, including a more than 50% lift in global oil prices since November.

Figure 11: Businesses' pricing intentions



Note: 'Pricing intentions' is the proportion of businesses who reported that they planned to increase prices less the proportion who planned to reduce them.

This too shall pass.

We expect that the current spike in inflation will prove temporary. We are forecasting just 0.8% inflation in the year to June 2022 – explaining why we do not expect the Reserve Bank will begin hiking the OCR until well after that point.

The current disruptions to global shipping and supply chains will ease over time. And in the case of goods like household durables, prices could actually decline as the normal pattern of price discounts resumes. Similarly, the current rises in prices for industrial commodities and intermediate goods, including oil, will go into reverse from late-2021 onwards as global supply catches up with the recent lift in demand.

Inflation will also be dragged sharply lower over the coming quarters by the rapid rise in the New Zealand dollar. The kiwi has already risen by close to 10% since November and, as

discussed in the *Exchange Rates* section, we think that it will continue to charge higher over the months ahead. That will be a major dampening influence on the prices of imported consumer goods and will also feed through to lower costs of production for businesses.

At the same time, the economy is still grappling with the large hole in demand resulting from the closure of our borders and the loss of international tourism spending. Consequently, while we are seeing a pick-up in sectors like housing and construction, the economy as a whole is still operating with significant spare capacity. Unemployment is currently running at 4.9%, well above the “neutral” level. And we estimate that the output gap (which compares the level of output to the economy’s productive capacity) is currently around -2%. This lingering spare capacity will be a significant drag on domestically-generated inflation for some time. We don’t expect that the economy will be operating at full capacity until early-2022. And while the strengthening economy will drag inflation higher over 2023, we don’t expect that inflation will approach 2% until 2024.

As global supply chains unclog, the RBNZ will once again be confronted by a longer-term inflation outlook that falls short of its 2% target.

Enough is enough.

At the end of last year, we thought the RBNZ would have to reduce the OCR further, but that is now looking unlikely. The New Zealand economy has weathered the Covid storm better than expected, and we are seeing clear signs that monetary stimulus is adding to demand, particularly in the housing and construction sectors. This gives us confidence that although inflation will be low in 2022, the RBNZ has probably done enough to secure an eventual return to 2%. Similarly, the surprisingly low rate of unemployment suggests the RBNZ won’t have to work so hard to achieve its goal of maximum sustainable employment. Finally, as vaccines have become available the risk of a Covid resurgence requiring a Reserve Bank response seems to be receding.

That said, increases in the OCR are still a long way off – we don’t expect them to start until March 2024. The RBNZ won’t realistically contemplate raising the cash rate until the borders reopen and longer-term inflation is comfortably on a path to 2%. And given the extended period in which inflation has lingered below 2%, we think there is a real possibility that the RBNZ will allow inflation to rise into the upper part of its target band for a period.

Before hiking the OCR, the RBNZ will first want to remove or reduce its non-conventional monetary stimulus measures. The RBNZ has actually already tapered its quantitative easing programme (LSAP), from \$800m of bond purchases per week late last year to around \$570m currently, but there

hasn’t been any formal announcement. We think the first step in terms of tightening monetary policy will be a formal signal that the LSAP is being reduced, at the time of the August *Monetary Policy Statement*. We expect the weekly pace of purchases will slow further at that point, and that the total number of bonds purchased will be around \$70bn (compared to the \$100bn cap currently on the programme). As the pace of purchases slows, that will add to the upward pressure on longer term interest rates, effectively tightening monetary policy.

The Funding for Lending programme is not something the RBNZ can easily reverse. The original announcement offered banks funding up to a certain cap through to June 2022 (and for an additional six months under certain conditions). However, if the RBNZ makes it clear that the FLP won’t be renewed, its role in suppressing mortgage rates would gradually diminish. That would be the RBNZ’s second means of tightening monetary policy, when the time is right.

Last cab off the rank would be actual OCR hikes, and as already mentioned, we don’t think that would be until 2024.

You can’t always get what you want.

Reinforcing the case for the RBNZ staying pat is that the extent of stimulus provided to date has actually fallen short of what they were aiming to provide. The RBNZ has been publishing an “unconstrained OCR” forecast. This describes the degree of overall monetary stimulus required to achieve their goals for inflation and employment, accounting for the level of the OCR as well as the impact of other stimulus measures, like quantitative easing or the FLP. In its November *Monetary Policy Statement*, the RBNZ estimated that the unconstrained OCR would need to be -1.5%. However, we estimate that the low OCR, LSAP, and FLP together have only delivered a total stimulus equivalent to an OCR of -0.5%.

Fortunately, given recent strong data, that is probably about the level of stimulus the RBNZ now deems necessary. In other words, there is no obvious need to alter monetary policy settings at present.

Financial market forecasts (end of quarter)

| | CPI inflation | OCR | 90-day bill | 2 year swap | 5 year swap |
|--------|---------------|------|-------------|-------------|-------------|
| Mar-21 | 1.4 | 0.25 | 0.30 | 0.35 | 0.80 |
| Jun-21 | 2.5 | 0.25 | 0.30 | 0.35 | 0.80 |
| Sep-21 | 2.4 | 0.25 | 0.30 | 0.35 | 0.85 |
| Dec-21 | 1.9 | 0.25 | 0.30 | 0.40 | 0.90 |
| Mar-22 | 1.4 | 0.25 | 0.30 | 0.45 | 0.95 |
| Jun-22 | 0.8 | 0.25 | 0.30 | 0.50 | 1.00 |
| Sep-22 | 0.8 | 0.25 | 0.30 | 0.55 | 1.10 |
| Dec-22 | 0.9 | 0.25 | 0.30 | 0.60 | 1.20 |
| Mar-23 | 1.1 | 0.25 | 0.30 | 0.65 | 1.30 |
| Jun-23 | 1.4 | 0.25 | 0.35 | 0.70 | 1.40 |

Agricultural outlook.

Short and sweet.

If 2020 was the year where New Zealand agriculture proved its resilience, 2021 is shaping up as a year where agriculture cashes in on its strength. Simply put, agricultural prices are solid and rising at the same time as production is firming. However, we expect that this sweet spot will prove short-lived as global food supply will eventually respond, moderating food prices over 2022.

Agricultural prices are firm and getting firmer. In October, we lifted our 2020/21 farmgate milk price forecast up by 50 cents to \$7.00/kg, and then last month we repeated the dose, lifting to \$7.50/kg. Forestry export prices have increased similarly, while fruit prices remain very high.

In addition, last year's laggards are closing the gap. The meat sector has started the year strong. Beef and lamb export prices in our key US and European markets, respectively, have jumped around 10% since the start of the year. We also expect venison and wool export prices, the weakest performers over 2020, to turn the corner later in the year.

Underlying the export price strength is the surging Chinese economy. With Covid under control, China was the only major global economy to grow over 2020. Importantly, as the economic momentum has continued into 2021 household spending has gathered steam. Growth in South-East Asian economies is also not far behind, further underpinning demand for New Zealand products.

The global rollout of Covid vaccines will give food demand a second shot in the arm. For New Zealand, the missing pieces in the export puzzle are the US, Europe and the UK. As the vaccine is rolled out in these countries, consumers will gradually return to restaurants and food service venues, lifting demand, especially for prime cuts of meat and wine.

Currently, global food supply is struggling to keep up with surging demand, resulting in high grain (feed) prices. That is going to constrain global supply of dairy and meat. We think that this dynamic also has further to run and will add to the upward price pressure over 2021.

Looking domestically, growing conditions have been favourable to date this season. Farmers have plenty of feed on hand. While weather events remain a risk, agricultural production levels for 2021 are likely to be firm and well up from last year's drought-hit levels.

With firm production and strong export prices, the key dampener on an otherwise stellar year is likely to be a strong New Zealand dollar. As a result, farm and orchard gate prices may not fully reflect the rise in global food prices. Similarly, high global shipping prices may also take some of the gloss off high export prices too.

Eventually, global food supply will respond, moderating global food prices. We expect some of our export prices (notably dairy and forestry) will begin to moderate from late 2021, while for other sectors the moderation may come in 2022. In that sense, 2021 is likely to prove a short-lived sweet spot for New Zealand agriculture.

Commodity price monitor

| Sector | Trend | Current level ¹ | Next 6 months |
|--------------|---|----------------------------|---------------|
| Dairy | Global dairy prices have jumped nearly 20% over the past three months. We expect this momentum to continue in the short term. | Average | ↗ |
| Beef | We expect that as the Covid vaccine rolls out globally beef demand will rise, taking prices along for the ride. | Low | ↑ |
| Lamb/Mutton | We expect that as the Covid vaccine rolls out globally lamb demand and prices will rise modestly. | Average | ↗ |
| Forestry | The China-led price rebound has continued and, if anything, gained momentum. We expect further price gains. | Above average | ↗ |
| Horticulture | Horticulture prices are already very high. From here, new gold kiwifruit supply may see prices soften, while tighter apple and green kiwifruit supply may lead prices higher. | High | → |
| Wool | We expect fine wools to lead a price recovery over 2021. Coarse wool prices may tentatively follow. | Low | ↗ |

¹ NZ dollar prices adjusted for inflation, deviation from 10 year average.

Exchange rates.

Kiwis can fly.

The kiwi has found its wings in recent months, rising to a two-year high on a trade-weighted basis early in January. Over the coming year, we expect that the New Zealand dollar will gain further altitude relative to the US dollar and other major currencies. We also expect the kiwi will remain firm relative to the Australian dollar.

Since our last quarterly update, the New Zealand dollar has been riding high on a wave of stronger than expected economic news. That includes a faster than expected recovery in domestic economic activity and a rebound in inflation. This has seen markets dialling back expectations for monetary stimulus from the RBNZ.

The kiwi's rise has been reinforced by the improved outlook for global economic activity and the related lift in risk appetite among investors. That follows reports that the number of new Covid infections in major economies has been declining, as well as the start of vaccine roll out programmes. Global risk sentiment has been further buoyed by expectations that the new Biden administration will be a less disruptive influence on the global economic landscape than the Trump regime was. Those developments have seen investors shifting away from safe haven currencies like the US dollar in favour of riskier currencies, including the New Zealand dollar.

Firming global economic conditions have also boosted the kiwi thanks to the rise in global commodity prices. Notably, prices for our key dairy exports have risen by nearly 20% since November.

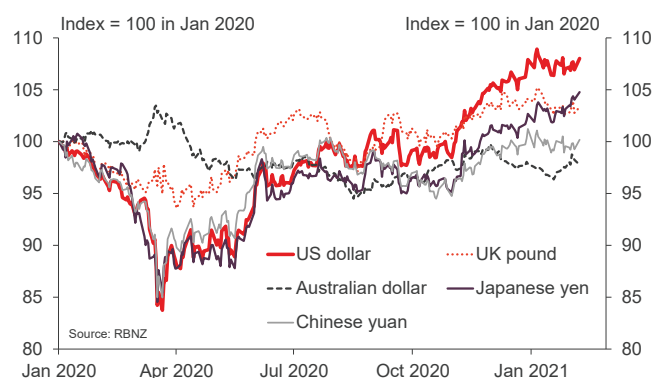
Over the next few months, New Zealand will likely see a downturn in some key activity gauges due to the lack of international tourists during summer. Even so, we still expect that New Zealand will outperform others on the global stage. Against that backdrop we see ample scope for the New Zealand dollar to push higher over the next few months and have pencilled in a peak of 78 cents against the US dollar in early 2022.

Similarly, the New Zealand economy's creditable performance will also see the New Zealand dollar strengthening relative to both sterling and the euro over the course of 2021. The UK is continuing to struggle with rising infection numbers and a double dip recession is looking likely. In the case of the euro area, measures to protect public health have been a drag on activity and inflation remains muted.

We expect the New Zealand dollar will hold firm against the Aussie over the coming years, trading around 92 to 94 cents. Economic conditions across the ditch have improved by

more than expected, and prices for Australia's commodity exports have actually risen by more than those produced in New Zealand. However, the outlooks for monetary policy on the two sides of the Tasman have diverged. While expectations for stimulus from the RBNZ have been wound back, the RBA extended its quantitative easing program in February. In addition, recent comments from RBA Governor Lowe indicated that monetary stimulus in Australia will be maintained for an extended period. That will provide a floor under the NZD/AUD cross rate.

Figure 12: NZ dollar exchange rate vs major countries



Exchange rate forecasts (end of quarter)

| | NZD/ USD | NZD/ AUD | NZD/ EUR | NZD/ GBP | NZD/ JPY | TWI |
|--------|-------------|-------------|-------------|-------------|-------------|------|
| Mar-21 | 0.73 | 0.94 | 0.60 | 0.53 | 75.9 | 75.5 |
| Jun-21 | 0.74 | 0.94 | 0.60 | 0.54 | 77.0 | 75.9 |
| Sep-21 | 0.75 | 0.94 | 0.60 | 0.54 | 78.0 | 76.2 |
| Dec-21 | 0.76 | 0.93 | 0.61 | 0.55 | 79.0 | 76.5 |
| Mar-22 | 0.78 | 0.92 | 0.62 | 0.55 | 81.9 | 77.6 |
| Jun-22 | 0.78 | 0.92 | 0.61 | 0.55 | 81.9 | 77.4 |
| Sep-22 | 0.77 | 0.92 | 0.60 | 0.55 | 80.9 | 76.4 |
| Dec-22 | 0.75 | 0.91 | 0.59 | 0.53 | 78.8 | 74.5 |
| Mar-23 | 0.75 | 0.92 | 0.58 | 0.53 | 78.6 | 74.1 |
| Jun-23 | 0.74 | 0.92 | 0.58 | 0.52 | 78.4 | 73.8 |

Special topic.

Going carb(on) free.

Current government policies do not put New Zealand on track to meet our greenhouse gas emission reduction targets. To address this, the Government's independent advisory body on climate change has proposed a more stringent Emissions Trading Scheme combined with 'command and control' measures to reduce emissions. We need to reduce emissions, but it will come at a cost, and New Zealand's economic landscape is likely to see some big changes.

A recent report by the Climate Commission suggests that more directed action is needed if New Zealand is to deliver on its 2050 emission reduction targets. While the Government is under no obligation to act on these recommendations, the rising tide of concern about climate change suggests that most are likely to be accepted and acted upon.

A key feature of the Climate Commission's report is that it includes a set of shrinking emissions budgets or targets for the period 2022 to 2035. To meet these budgets, the Commission estimates that the cost of taking an additional tonne of carbon dioxide equivalent (CO₂e) out of the atmosphere will be around \$140 per tonne by 2030, rising to a whopping \$250 by 2050 (in today's prices). We think this implies that the price of carbon in New Zealand's Emission Trading Scheme (ETS) should be sitting somewhere around that level, compared to the \$39 at present. Such a price increase would have a profound impact on emitters and forest owners alike, threatening the viability of some businesses that are unable to reduce their emissions, while bolstering the fortunes of others. Auction mechanisms in the ETS currently encourage the price to sit between \$20 and \$50. The Commission has recommended these mechanisms be altered such that the range is lifted to \$30 to \$70 immediately, with annual increases pencilled in thereafter.

In addition, the report recommends a set of command and control policy interventions. The Commission's view is that regulatory measures will help smooth the economic cost of the transition and make it more equitable relative to relying on the ETS alone. We certainly agree that some direct regulation is needed, but we think that the balance has swung too far as some these command and control measures may be needlessly costly. For example, requiring all businesses to convert from natural gas to electricity would make sense for most. But some uses of gas, such as cooking in restaurants, are enormously valued by society. Restaurants would rather pay a high price for using carbon than convert. The ETS naturally allows an exemption for such firms, whereas blanket rules do not.

The Commission estimates that the carbon reduction effort will shave 1% off New Zealand's annual GDP by 2050. That

is roughly the same as that estimated by an earlier Vivid Economics research report, but somewhat lower than that estimated by the New Zealand Institute of Economic Research.

Where these costs end up will depend on relative negotiating positions along industry value chains and the prevailing competitive dynamics. Some firms will internalise these costs by making operational efficiency gains. Others will pass them on and they will be absorbed along the value chain with the end consumer picking up most of the tab. Those that are not able to achieve either may find it difficult to remain in business.

The Commission's suggestions portend big changes for the transport, energy, agriculture, and manufacturing sectors. It suggests placing great reliance on existing technologies and the ability to change user behaviour to drive emissions lower. For transport, this means replacing fossil fuelled powered vehicles with electric vehicles (EVs) and getting more people onto public transport. In the case of energy, it's about replacing fossil base load and geothermal electricity generation with electricity generated from renewable sources. For manufacturing, the focus is on eliminating fossil fuel use, especially in process heating. For agriculture the emphasis is on reducing biothermal methane emissions per head of livestock through selective breeding and reducing carbon emissions through more efficient farm management practices. For forestry, the Commission is looking to boost the role of native forests as a source of carbon.

To ensure a smooth transition, the Commission suggests that the Government should ensure that its regulatory frameworks are fit for purpose and that the necessary supporting infrastructure is in place. For example, to make the required shift to EVs, the Commission recommends new regulations be introduced to improve the fuel efficiency of the existing light vehicle fleet and that a range of steps be taken to address the upfront capital costs of EVs. From an infrastructure perspective, the Commission suggests that the Government and private sector work together to roll out EV battery refurbishment, collection, and recycling systems.

Economic and financial forecasts.

New Zealand forecasts

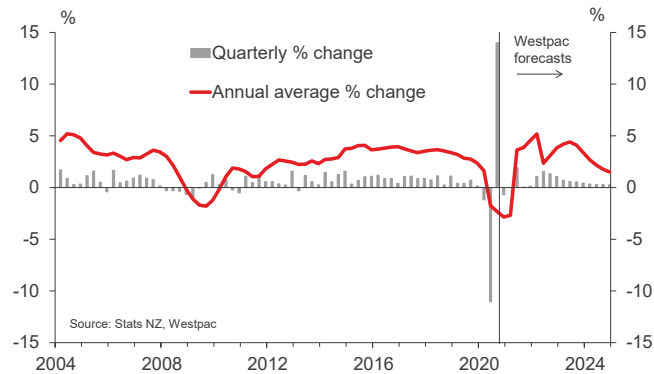
| GDP components | Quarterly % change | | | | Annual average % change | | | |
|------------------------------------|--------------------|--------|--------|--------|-------------------------|-------|------|------|
| | Sep-20 | Dec-20 | Mar-21 | Jun-21 | 2019 | 2020 | 2021 | 2022 |
| GDP (production) | 14.0 | -0.7 | 0.0 | 1.9 | 2.3 | -2.8 | 4.5 | 3.8 |
| Private consumption | 14.8 | -1.4 | 3.7 | 1.8 | 3.6 | -2.3 | 8.3 | 3.3 |
| Government consumption | 0.3 | 1.2 | 1.3 | 1.2 | 5.4 | 5.7 | 4.4 | 3.4 |
| Residential investment | 42.0 | 4.0 | 4.0 | 2.0 | 4.8 | -3.3 | 21.7 | 1.8 |
| Business Investment | 20.7 | 2.1 | 1.1 | 0.2 | 2.4 | -7.8 | 8.0 | 7.0 |
| Exports | 4.9 | -2.5 | -2.3 | 5.9 | 2.4 | -12.1 | -0.4 | 11.7 |
| Imports | 10.6 | 4.2 | 8.3 | 3.2 | 2.2 | -17.6 | 15.7 | 8.5 |
| Economic indicators | Quarterly % change | | | | Annual % change | | | |
| | Sep-20 | Dec-20 | Mar-21 | Jun-21 | 2019 | 2020 | 2021 | 2022 |
| Consumer price index | 0.7 | 0.5 | 0.8 | 0.6 | 1.9 | 1.4 | 1.9 | 0.9 |
| Employment change | -0.7 | 0.6 | -0.1 | 0.2 | 1.3 | 0.7 | 1.0 | 3.0 |
| Unemployment rate | 5.3 | 4.9 | 5.0 | 5.1 | 4.1 | 4.9 | 4.9 | 4.2 |
| Labour cost index (all sectors) | 0.6 | 0.4 | 0.3 | 0.6 | 2.6 | 1.6 | 1.8 | 1.8 |
| Current account balance (% of GDP) | -0.8 | -0.8 | -1.1 | -1.8 | -3.3 | -0.8 | -2.7 | -2.8 |
| Terms of trade | -4.7 | 1.2 | 5.7 | 2.3 | 7.1 | -1.9 | 6.3 | -1.3 |
| House price index | 2.5 | 6.4 | 6.5 | 3.6 | 4.6 | 11.4 | 17.0 | 7.5 |
| Financial forecasts | End of quarter | | | | End of year | | | |
| | Sep-20 | Dec-20 | Mar-21 | Jun-21 | 2019 | 2020 | 2021 | 2022 |
| 90 day bank bill | 0.27 | 0.27 | 0.30 | 0.30 | 1.17 | 0.27 | 0.30 | 0.30 |
| 5 year swap | 0.23 | 0.31 | 0.80 | 0.80 | 1.18 | 0.31 | 0.90 | 1.20 |
| TWI | 72.0 | 72.9 | 75.5 | 75.9 | 71.4 | 72.9 | 76.5 | 74.5 |
| NZD/USD | 0.66 | 0.69 | 0.73 | 0.74 | 0.64 | 0.69 | 0.76 | 0.75 |
| NZD/AUD | 0.93 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.93 | 0.91 |
| NZD/EUR | 0.57 | 0.58 | 0.60 | 0.60 | 0.58 | 0.58 | 0.61 | 0.59 |
| NZD/GBP | 0.51 | 0.52 | 0.53 | 0.54 | 0.50 | 0.52 | 0.55 | 0.53 |
| RBNZ bond purchases (\$bn) | 33.1 | 44.0 | 50.0 | 56.1 | - | 44.0 | 67.8 | 71.5 |
| Net core Crown debt (% of GDP) | 29.3 | 31.0 | 33.2 | 34.2 | 20.2 | 31.0 | 37.0 | 40.6 |

International economic forecasts

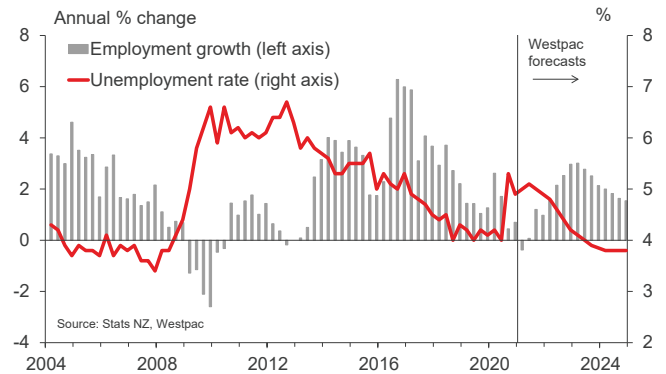
| Real GDP (calendar years) | Annual average % change | | | | | |
|---------------------------|-------------------------|------|------|-------|-------|-------|
| | 2017 | 2018 | 2019 | 2020f | 2021f | 2022f |
| Australia | 2.4 | 2.8 | 1.9 | -2.7 | 4.2 | 3.3 |
| China | 6.9 | 6.8 | 6.1 | 2.3 | 10.0 | 5.7 |
| United States | 2.3 | 3.0 | 2.2 | -3.5 | 4.4 | 4.5 |
| Japan | 2.2 | 0.3 | 0.7 | -5.5 | 2.5 | 2.2 |
| East Asia ex China | 4.7 | 4.4 | 3.7 | -2.6 | 5.2 | 5.0 |
| India | 7.0 | 6.1 | 4.2 | -8.0 | 11.0 | 9.0 |
| Euro Zone | 2.6 | 1.8 | 1.3 | -6.8 | 4.0 | 3.5 |
| United Kingdom | 1.9 | 1.3 | 1.5 | -10.5 | 5.0 | 5.5 |
| NZ trading partners | 4.1 | 4.0 | 3.5 | -2.0 | 6.3 | 4.6 |
| World | 3.8 | 3.5 | 2.8 | -3.2 | 5.8 | 4.6 |

The economy in six charts.

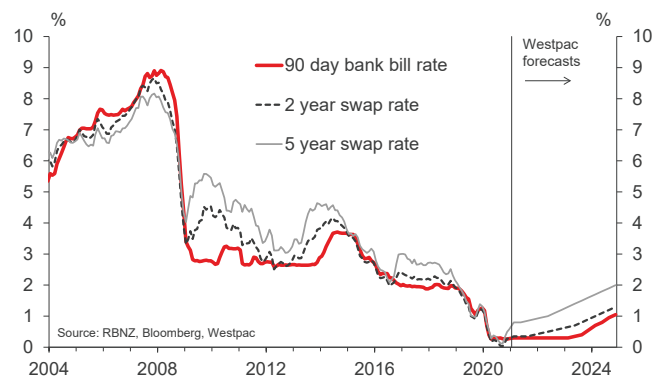
New Zealand GDP growth



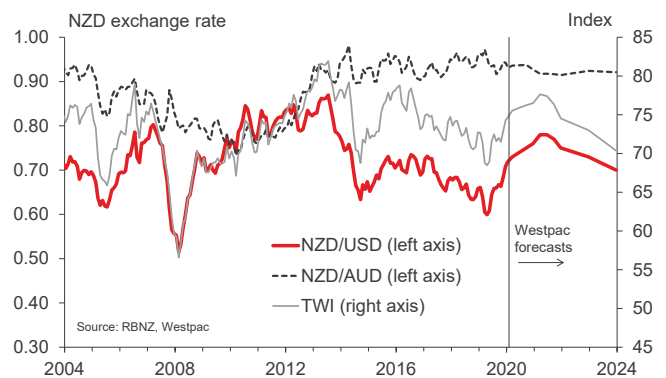
New Zealand employment and unemployment



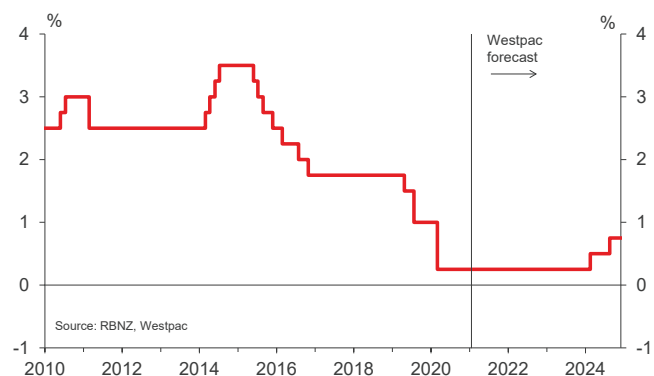
90 day bank bills, 2 year swap and 5 year swap rates



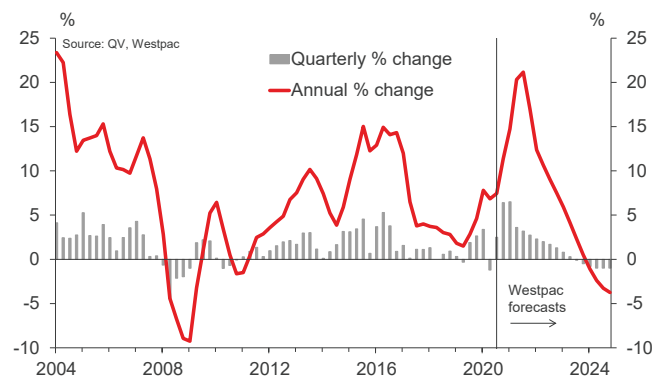
Exchange rates



Official Cash Rate



House price inflation



Contact the Westpac economics team.

Dominick Stephens, Chief Economist

+64 9 336 5671

Michael Gordon, Senior 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

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

Disclaimer.

Things you should know

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

Disclaimer

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

Country disclosures

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

New Zealand: In New Zealand, Westpac Institutional Bank refers to the brand under which products and services are provided by either Westpac or Westpac New Zealand Limited ("WNZL"). Any product or service made available by WNZL does not represent an offer from Westpac or any of its subsidiaries (other than WNZL). Neither Westpac nor its other subsidiaries guarantee or otherwise support the performance of WNZL in respect of any such product. The current disclosure statements for the New Zealand branch of Westpac and WNZL can be obtained at the internet address www.westpac.co.nz. For further information please refer to the Product Disclosure Statement (available from your Relationship Manager) for any product for which a Product Disclosure Statement is required, or applicable customer agreement. Download the Westpac NZ QFE Group Financial Advisers Act 2008 Disclosure Statement at www.westpac.co.nz.

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

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

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

directly or indirectly into any restricted jurisdiction. This communication is made in compliance with the Market Abuse Regulation (Regulation(EU) 596/2014).

Investment Recommendations Disclosure

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

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

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

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

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

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

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

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

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

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

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

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

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

