

Economic Overview May 2020.

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Covid-19 will cast a shadow over the economy for years after the virus has passed. Consumers and businesses will go into their shells amid high unemployment, falling house prices, and damaged balance sheets. The farm sector will suffer an income hit due to a global recession. And the dearth of international tourists will be keenly felt. Scarring from the Covid-19 recession will permanently damage New Zealand's long-run productivity, meaning GDP and wellbeing may never fully return to their pre-Covid-19 trends.

Disruptive events tend to accelerate trends that are already in place, and Covid-19 will be no exception. One example is that we have seen an obvious leap forward in the digitisation of the economy, and there will be no going back. That may be the last straw for some firms and a huge opportunity for others, but digitisation is a positive for the economy overall.

Despite the gloom, it is worth pointing out that we are actually forecasting a more rapid economic recovery than after the GFC. For example, we anticipate four years of above-5% unemployment, whereas after the GFC there were eight.

The magnitude of the coming recession warrants an unprecedented policy response. The Government is right to do all it can, but the consequence will be a debt to GDP ratio of 50%. That will leave future generations fewer options as they support the aging population. Meanwhile, the Reserve Bank will probably have to expand its quantitative easing programme and cut the OCR below zero for the first time in New Zealand's history.

Dominick StephensChief Economist

New Zealand Economy.

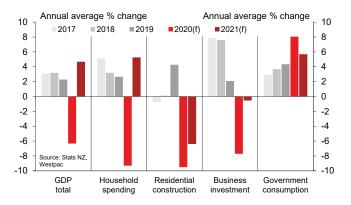
The economy is in intensive care.

Efforts to limit the spread of Covid-19 brought activity in parts of the economy to a halt earlier this year. That's pushed New Zealand into a deep recession. The coming years will see lingering unemployment, sluggish household and business spending, and challenging conditions in some of our key export sectors. A full recovery will take years.

New Zealand is in a deep recession.

Following the arrival of Covid-19 on our shores, the New Zealand Government acted aggressively to restrict economic and social activity. This was the right decision to protect lives, and will hopefully limit the longer term impact on the economy. Nevertheless, the economic consequences will be severe. New Zealand is now in a deep recession. GDP is set to decline by 17% through the first half of this year. In comparison, during the Global Financial Crisis (GFC) economic activity fell by a total of 2.7%, with that drop spread over a period of 18 months.

Figure 1: Forecasts of GDP components



Efforts to contain the spread of Covid-19 and protect public health brought large parts of the economy to a standstill for 33 days through March and April. During that time, around a third of economic activity could not occur. We also saw the number of people on job seeker benefits rising sharply from 145,000 in March to over 180,000 in April. Those loses would have been even more severe if not for the massive response from the Government. Approximately \$22bn of support measures have been introduced. That's equivalent to around 7% of annual GDP.

Covid-19 restrictions on domestic activity have now been dialled back and most businesses have been able to reopen provided appropriate safety measures can be put in place.

Nevertheless, a return to business as usual is still a long way off. We estimate that 13% of economic activity is still on hold, with many businesses in sectors like retail and hospitality unable to trade, and health and safety requirements slowing activity in a number of other sectors, such as construction.

As restrictions on economic activity continue to be relaxed over time, there will be a sharp lift in GDP as businesses reopen and catchup activity occurs. Even so, a full recovery will take years. We expect annual GDP will drop 6.3% over 2020 and recover by only 4.7% in 2021. That said, we expect the economy will recover much faster than it did after the GFC, because the impediment to growth this time is temporary. This time we expect that the economy will recover to its pre-recession size after two years, whereas after the GFC it took three.

A full recovery will take years.

The tourism and international education sectors have obviously been especially hard-hit due to the near closure of New Zealand's borders. But New Zealand's goods exports will also be affected, with economic growth plummeting sharply in all our major export markets. This will be a particular drag on manufactured exports and will create a renewed round of weakness for forestry. Prices of New Zealand's key food exports have already fallen, and may fall further yet, affecting farm incomes.

Even with significant increases in fiscal stimulus now flowing through the economy, a full recovery will take years.

Weakness in our export sectors combined with the downturn in the domestic economy will leave businesses more focused on survival than expansion. We have already seen a number of business closures, and unfortunately there are likely to be more over the next few months. Among those businesses that do survive, many will have to borrow to get through. That

means that once the recovery begins, they will be focused on balance sheet repair rather than expansion. Consistent with that, we've already seen many businesses scaling back plans for investment spending. In addition, there is likely to be further job shedding as the Government's wage subsidy program comes to an end. We expect the unemployment rate will rise to 9.5% in June – its highest level in 27 years.

Figure 2: Businesses' investment and hiring intentions

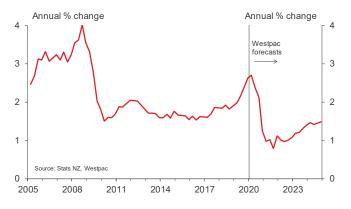


Households are wrestling with job losses and lower asset prices.

Household spending has dropped sharply in recent weeks, but will partially bounce back as soon as gatherings and travel are allowed again. Nevertheless, a full recovery in spending will take much longer with many households likely to rein in discretionary spending over the coming months. Some people have lost their jobs, and others will become more financially cautious. We're also likely to see wage growth fall from over 2% per annum in recent years to around 1% in 2021.

Even people untouched by the labour market downturn will find that their balance sheets have been damaged. KiwiSaver balances have already fallen and, as discussed below, house prices are likely to fall. This will dent households' wealth, requiring them to reduce consumption and save more in order to rebuild balance sheets.

Figure 3: Wage growth (Labour Cost Index)



The housing market went into stasis during the lockdown, bringing the recent period of rapid price growth to an abrupt

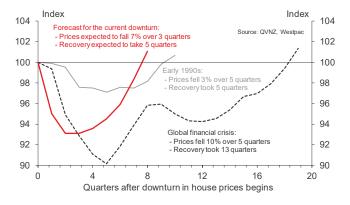
halt. When the market thaws, we expect house prices will decline as job losses and business failures mean fewer people will be in a position to buy property, and many other potential buyers will be too nervous to act. How far prices fall will be dependent on market sentiment. For now, we're pencilling in a 7% drop through the back half of this year. In comparison, house prices fell by 3% during the early 1990s recession and 10% during the 2008/09 housing-centric Global Financial Crisis.

Contrary to popular opinion, there is little difference between regions in how far house prices fall during recessions. However, the peak to trough decline does tend to occur much faster in Auckland and Wellington than elsewhere. For example, following the financial crisis Auckland house prices fell 12% in 18 months, whereas it took 51 months for prices to fall 15% in Hamilton.

The coming months will see further business closures and unemployment is set to rise to its highest level in 27 years.

We expect house price growth will remain modest through 2021. However, that's likely to give way to a period of rapid gains over 2022 and 2023. The Reserve Bank has reduced the OCR, removed its loan-to-value restrictions and mortgage lending, and delayed its requirement for banks to hold more capital. This will make mortgages more available and less costly over time. Once the virus disruption passes and confidence eventually returns, low interest rates will result in a very fertile environment for asset prices, including house prices. Even so, it will be around two years before house prices reclaim their recent highs.

Figure 4: New Zealand house prices during economic downturns, indexed to pre-recession level



Migration into and out of New Zealand is likely to fall to very low levels over the coming months, and to stay lower than usual for years. The drop in inward migration is likely to dominate, so net migration and population growth will be lower over the coming few years than we previously expected, affecting demand in the economy, demand for housing construction, and the availability of labour.

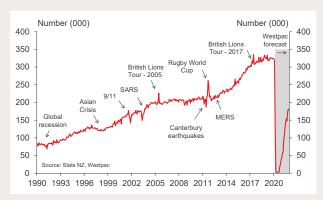
Outlook for Tourism.

Restrictions on international visitor arrivals and limits on domestic travel have resulted in a sharp downturn in the tourism sector. Most vulnerable are the many small cashflow dependent firms that operate in this sector, including tourist guides, bars, restaurants and accommodation providers. Many of these firms have already closed their doors, and more are likely to follow over the coming months.

Once the pandemic passes, the recovery in tourism is likely to be slow. Initially it will be led by an increase in domestic tourists, who might otherwise have travelled overseas. Thereafter we are likely to see a pickup in foreign visitor arrivals as entry restrictions into New Zealand are lifted on a country-by-country basis. Even then, numbers are likely to be low for some time because of weakness in key source

markets and a fear of Covid-19. Those that do return in the near-term are likely to be younger people, who tend to be less fearful of the virus.

Figure 5: Visitor arrivals to New Zealand, seasonally adj.



Outlook for Manufacturing.

New Zealand's manufacturers are likely to face some big challenges over the coming months. Falls in economic activity will cap demand and output growth, especially in sectors that rely on discretionary spending. That includes firms that manufacture consumer goods, as well as those that depend on private sector investment. In contrast, firms that rely more on government spending should do a bit better.

At the same time, manufacturers will also have to adapt to more stringent safety requirements. The need for physical distancing will mean some big operational changes, with many firms having to adopt new work organisation methods and revise their factory layouts. For smaller operators that do not have the deep pockets needed to make the necessary investments, this could prove to be

the last straw, raising the possibility of further closures and job layoffs.

When Covid-19 eventually passes, and economic conditions both here and abroad begin to firm again, manufacturing activity should improve. However, this recovery is likely to take place in a world of increasingly protectionist trade policies and rising economic nationalism, both of which are likely to accelerate structural changes already in train. This includes an increase in the domestication of supply chains, facilitated by the uptake of new digital technologies such as 3-D printing, AI and robotics. For New Zealand manufacturers that have struggled with international competition, the domestication of supply chains is likely to mean more domestic opportunities. However, for those that have achieved export success, the global shift towards onshoring is likely to pose a direct threat.

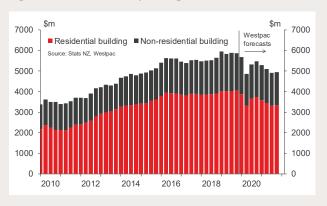
Outlook for Construction.

Construction activity has picked up rapidly as the Covid-19 Alert Level has been wound down, and there will need to be a period of catch-up building activity. However, we expect that building activity will remain below prelockdown levels for some time as health and safety requirements place a handbrake on activity.

Looking ahead to 2021, we expect a second dip in construction activity. The number of new construction projects coming to market or going through the consenting process will be lower than usual over the coming months. There is also likely to be a higher-than-usual number of planned projects being cancelled. Given the usual lags between planning and building, all this points to another slowdown in building activity through mid-2021. That will affect both residential and non-residential building.

Increased government spending in areas like infrastructure will provide some offset, however it will take time for many government-related projects to break ground.

Figure 6: Construction spending



Long-run impact of Covid-19.

Opportunity lost, or the shakeup we needed?

Shock events tend to accelerate trends that are already in progress, and Covid-19 will be no exception. The lockdowns prompted a step change in digitisation, and there will be no going back. However, Covid-19 will permanently damage New Zealand's productivity, GDP and wellbeing overall, due to economic scarring from the recession. Supply chains will be rethought, with varying effects across the economy.

The most obvious existing trend that has been accelerated by Covid-19 is digitisation. During the lockdowns online retailing boomed even as bricks-and-mortar shops stayed shut, people learned to work from home, and commerce went digital in innovative ways (although you still can't get a haircut online). We may have seen years' worth of digitisation in a few short months.

Digitisation tends to create winner-takes-all markets, and in some instances that will mean more revenue heading to San Francisco. Some New Zealand firms that have long been struggling with online rivals might find that Covid-19 is the last straw. But others could benefit from digitisation by becoming the global champion in a niche area. Greater online commerce will reduce the tyranny of distance that has long plagued the New Zealand economy. And most importantly, digitisation is benefitting the majority of households and firms by generally enhancing productivity, and Covid-19 has arguably given that a boost.

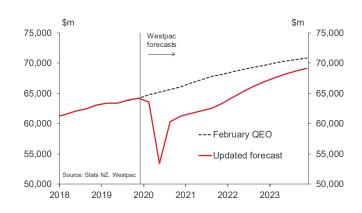
Nevertheless, Covid-19 is likely to harm productivity overall. The economy may never re-attain its pre-Covid trend, mainly due to economic scarring from the recession. Unemployment will cause some people's skills to atrophy, businesses on the cusp of a great new developments might fold, some firms will have to focus on debt reduction at the expense of R&D, and entrepreneurs may struggle to raise capital. All of this could mean that the economy misses out on productivity improvements that would otherwise have occurred. Meanwhile, the massive debt the Government is taking on means it will have to spend less or tax more in the future, which will also deprive the economy of development opportunities.

Closing the borders could also harm productivity, and not just due to the loss of tourism. Fewer people migrating into or out of New Zealand will mean less efficient job matching. Kiwis will miss opportunities to build their skill sets abroad, and some New Zealand firms may find it harder to find the skilled workers they need. Meanwhile, the reduction in business and political travel will impede the cross-pollination that spreads productivity-enhancing ideas around the world.

Covid-19 will prompt firms and governments to rethink the resilience of supply chains. The overall effect will probably be to slow globalisation, which will slow global productivity growth. However, the effect of this re-alignment of supply chains will vary across the New Zealand economy:

- The recent global trend toward more local manufacturing, enabled by new technology such as 3D printing, will probably gain momentum, including in New Zealand.
- Some New Zealand firms that have long struggled with international competition may get a reprieve, such as wood manufacturers.
- We doubt there will be a lasting change in supply chains for firms that compete on price, such as importers of basic consumer goods. Those that opt for more secure supply chains may be safer during pandemics, but between pandemics they could be driven out of business by rivals using cheaper suppliers.
- Governments will probably adopt more protectionist trade policies, and that will disadvantage some New Zealand exporters.

Figure 7: Covid-19 impact on the level of GDP



Global Economy.

Misery loves company.

Every major economy will be sharing in the pain of the Covid-19 outbreak, with global GDP expected to contract by 3% this year. Those countries that have responded to the outbreak quickly will face a less severe downturn than others, but restrictions on activity are likely to remain in place for some time. The pace of recovery across countries will also depend on the scale and nature of their fiscal responses.

The Covid–19 pandemic is a once-in-a-century shock that will leave no part of the global economy untouched. The stringent measures that have been taken to contain the virus will have a severe impact on activity and balance sheets, and in some cases these may have to stay in place for many months. We're expecting world GDP to contract by 3% over 2020, an even worse outcome than during the depths of the Global Financial Crisis. That will be followed by a high rate of growth in 2021, but not enough to return the level of activity to its previous trend.

The global nature of the outbreak means that the economic performance across regions will vary only in terms of the scale of the shock. Countries that have had early success in containing the virus, such as China and South Korea (as well as New Zealand and Australia) are likely to see a quicker rebound. Even so, the need for ongoing border closures and heightened vigilance in order to avoid a second wave of the virus mean that activity will remain below its previous trend. The strength of the fiscal policy response will also be a distinguishing factor, with some regions better placed than others to provide a wave of support and stimulus.

Of the major economies, China is clearly the best positioned for recovery. With domestic restrictions being wound back, businesses are wasting little time in getting back to work, and anecdotes suggest that manufacturing in most regions had come close to full capacity by the end of March. However, the depth of the downturn in the rest of the world means that China's export performance will take an unavoidable hit. With that in mind, government support measures are likely to focus on spurring investment, with the central authorities working with local governments and the private sector.

Both Europe and the US are facing immense recessions this year. The slow response to the virus in both regions means that it has become far more widespread than it was in China, and control measures will have to remain in place for longer. Governments in both regions have pledged significant fiscal support, but the majority of the funds committed are for recapitalising large businesses and for loan guarantees, with little focus on keeping workers connected to the workforce.

Consequently, unemployment is likely to rise sharply and could hinder the pace of the economic restart once it begins.

Australia has had similar success to New Zealand in bringing the outbreak under control, with somewhat less restrictive measures. Our forecasts are based on Australia's restrictions remaining in place for six months, though in light of recent trends they could be eased sooner. Even so, the Australian economy still faces a deep downturn this year, exacerbated by a loss of momentum even before the crisis hit. Unemployment is set to rise sharply, although as in New Zealand, a temporary wage subsidy scheme for businesses will help to prevent an even worse outcome.

Commodity prices have fallen sharply in response to the drop in global demand, especially oil prices as international travel has ground to a halt. As the recovery gets under way, we expect that governments around the world will focus on boosting construction in infrastructure spending, providing some support for metals and other industrials. In contrast, persistently higher unemployment will weigh on demand for soft commodities such as food.

Figure 8: World GDP growth



The RBNZ and Government response to Covid-19.

We need a hero.

The Government's economic rescue package is proving effective, but ballooning debt will eventually limit how much the Government can spend. The Reserve Bank is pitching in with quantitative easing, and we think the next step will be a negative OCR. Inflation will drop very low over the coming couple of years but could re-emerge later, unlike the post-GFC experience.

During the initial Covid-19 lockdown, the Government's aim was to tide businesses and people over. The wage subsidy was no panacea, but it did a good job of keeping some businesses afloat and preventing a sharper rise in unemployment. Keeping businesses and employees working, where possible, will reduce long-run economic scarring by retaining skills and expertise. Meanwhile, the Reserve Bank's main task was to keep markets stable, and they did an excellent job. Most important was the Term Auction Facility which ensured the stability of bank funding markets.

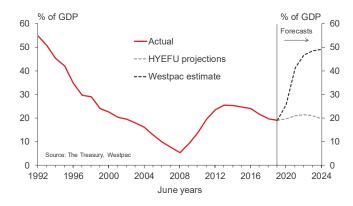
As the country comes out of lockdown, the focus will shift from rescue to resuscitation. The legacy effect of high unemployment and low GDP will threaten to cause a deflationary spiral unless substantial macroeconomic stimulus is administered. Both the Government and the Reserve Bank are going to have to pitch in.

The government debt to GDP ratio will reach its highest level since 1993.

The Government is likely to deliver roughly another \$15bn of fiscal stimulus at the May Budget. This is likely to include massive additional infrastructure spending, and might include targeted direct payments to households. But there is a limit to how much stimulus the Government can comfortably provide. The rescue and stimulus measures will end up costing the Government around \$37bn. The Government is also going to be suffering a major reduction in tax revenue, and an increase in expenditure on benefits. All told, we calculate that net core Crown debt will rise to around \$180bn by 2024, taking the debt to GDP ratio to 50%. The Government will have to demonstrate a clear plan to get that debt ratio back down again if it is to avoid a ratings downgrade. After all, the aging of the population is waiting in the wings to put its own pressure on New Zealand's fiscal books.

As the Government borrows to fund its deficits, the supply of New Zealand Government Bonds will balloon. Unless willing buyers can be found, market forces will push the interest rates on bonds higher. And that would be very unhelpful for the Reserve Bank, which is trying to reduce interest rates.

Figure 9: Net core Crown debt as a % of GDP



Negative OCR expected.

In order to head off the threat of higher interest rates, the Reserve Bank has already initiated a quantitative easing (QE) programme to buy \$33bn of central government and local government bonds over a year. We think that will be extended significantly at the RBNZ's May Monetary Policy Statement. If we are right, the Reserve Bank could be on track to own over 40% of all Government Bonds on issue. The RBNZ has stated that it would hesitate to corner more of the market than that, for fear of reducing market liquidity.

Even with fiscal stimulus and massive QE, the outlook for inflation and unemployment will still be unacceptable to the RBNZ. Inflation rose to 2.5% in the March quarter, but it will drop back to 1.6% in June due to sharply lower petrol prices, a freeze on rents, and sharply lower accommodation and airfare prices. Some products will probably rise in price due to

disrupted supply chains, but over the course of 2021 and 2022 we expect the sheer scale of the rise in unemployment and decline in demand to severely suppress overall inflation. More monetary stimulus will be required.

We think the next cab off the rank will be a negative OCR. We forecast that the RBNZ will lower the OCR by 75 basis points to -0.5% in November this year. Last year the RBNZ said that taking the OCR into negative territory is its preferred "nonconventional" option, but there have been two impediments to moving earlier.

The first is that trading banks' systems are not currently ready to deal with a negative OCR – changes to documentation and computer systems are required. Holding off on a negative OCR until November should get around that, but the timing of the RBNZ's move will depend on how long it takes trading banks to prepare, which is uncertain.

The second impediment is that lowering the OCR this year would break a commitment the RBNZ made in March to keep the OCR at 0.25% for a year. The RBNZ could probably hold its head high by pointing out that the Level 4 lockdown was a truly extraordinary event, and we doubt they would come in for much criticism. However, any move to break an earlier commitment would have to be carefully explained and justified.

Forward guidance and a long lead time would help with both of the above problems. We expect that the RBNZ will signal either its intent or its willingness to move to a negative OCR at the August MPS. This would have the effect of reducing wholesale term interest rates at that time.

The lower the OCR goes, the less marginal impact it would have on retail rates such as mortgage rates. Thus a 75 basis point OCR cut from 0.25% to -0.50% would bring mortgage rates down, but not by anything like as much as 75 basis points. We estimate that, in New Zealand, the OCR could go down to -1% before further cuts had zero impact on retail rates. This effective lower bound is lower in New Zealand than in many other countries, because in New Zealand bank deposit rates are higher relative to the OCR.

To clarify, we do not expect any of the interest rates paid or received by New Zealand households and businesses to go negative. In overseas jurisdictions with negative official interest rates, retail rates have almost always remained positive. We do, however, expect the 90-day bank bill to go slightly below zero. This is an interbank rate, but some business interest rates are expressed as a margin over it. Our forecast for the two-year swap rate is that it will reach a low-point of zero before rising again from September 2021.

Debunking the naysayers.

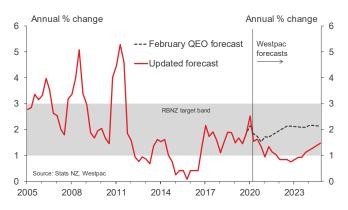
The most common concern we hear is that "negative interest rates and QE have been tried overseas, and those countries still have low inflation, so it hasn't worked." That is equivalent to saying that medicine doesn't work because the people

who take it are sick. In our view, negative interest rates and QE have worked overseas – they have prevented deflationary spirals. Countries using these tools are doing so because they are threatened with low inflation. Without QE and/or negative interest rates, these countries may have experienced persistent deflation like most countries did during the Great Depression.

Inflation is crucial in the long run.

The limit on how long the RBNZ can continue to support the economy via QE and ultra-low interest rates is its inflation target. Low inflation will give the RBNZ a green light for the coming couple of years, but inflation pressure could re-emerge earlier in this cycle than it did after the Global Financial Crisis (GFC). A key feature of the post-GFC world was new technologies and more efficient global supply chains keeping inflation surprisingly low, thus allowing central banks to keep interest rates low. Covid-19 is more likely to cause a reversion to less efficient, local supply chains and to harm productivity, which over the long run would increase production costs and inflationary pressure. This is one reason why we expect that the OCR will start rising again from early 2022.

Figure 10: Consumer price inflation



Financial market forecasts (end of quarter)

	CPI inflation	OCR	90-day bill	2 year swap	5 year swap
Jun-20	1.6	0.25	0.30	0.20	0.40
Sep-20	1.6	0.25	0.20	0.10	0.40
Dec-20	1.3	-0.50	-0.20	0.00	0.40
Mar-21	1.0	-0.50	-0.20	0.00	0.40
Jun-21	1.3	-0.50	-0.20	0.00	0.40
Sep-21	1.1	-0.50	-0.20	0.10	0.50
Dec-21	1.0	-0.50	-0.10	0.20	0.60
Mar-22	0.8	-0.25	0.10	0.30	0.80
Jun-22	0.8	0.00	0.35	0.50	1.00
Sep-22	0.8	0.25	0.60	0.70	1.20

Agricultural and Forestry Outlook.

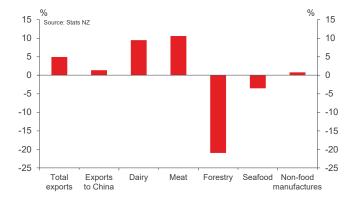
Out of the frying pan...

The evolution of Covid-19 from a regional outbreak to a global pandemic has deepened the challenge facing New Zealand's agricultural exporters. The swift resumption of activity in China has provided some relief to concerns about market access, but a severely weakened world economy is likely to put further downward pressure on commodity prices.

The initial phase of the Covid-19 outbreak looked to be a massive challenge to New Zealand's agricultural sector. China has increasingly become the dominant buyer of our food and log exports over the years, and China's lockdown in response to the outbreak represented both a major loss of demand and a disruption to the flow of goods.

However, primary exports appear to have weathered the initial phase of the crisis better than expected. Certainly there were some segments that were hit harder than others – particularly forestry, which was already dealing with an oversupply of logs in China before the lockdown began. Products aimed at the food services sector also suffered, most notably fresh seafood and some cheaper cuts of lamb. In contrast, items that tend to be purchased for home use such as beef, dairy and fruit held up well, and anecdotes suggest that China gave priority to food imports while its ports were running at reduced capacity. The overseas trade data for the March quarter showed that exports to China were flat overall (with higher prices making up for lower volumes), and that exporters were able to divert to other markets.

Figure 11: March quarter exports vs last year



The next phase of the pandemic is likely to be more challenging for exporters. As China has swiftly brought the spread of Covid-19 under control, its ports and businesses are reopening and economic activity is gradually returning towards previous levels. That at least provides some

reassurance that there will be a market for New Zealand's agricultural products. But a prolonged shock to the rest of the world, as discussed in the *Global Economy* section, is likely to depress the prices that we receive.

There are three channels for this. First, consumer demand will be weak in other key markets such as the US, South America and the Middle East. Second, China is itself an export-dependent nation, and a weaker world economy will weigh on Chinese incomes and purchasing power. Lastly, farmers in the rest of the world can't easily reduce their output and, faced with a hit to demand in their own markets, will be looking to offload their product into more active markets like China.

Exporters weathered China's outbreak better than expected, but the global spread of the virus will prove more of a challenge.

These dynamics are likely to be especially pronounced in the dairy sector. We expect a farmgate milk price for the current season of \$7.00/kg, at the bottom end of the forecast range that Fonterra has given. For the next season starting in June we expect a milk price of \$6.30/kg, though there's a wide margin of uncertainty around any forecast that far ahead. These forecasts are based on a further drop in world dairy prices on top of the 15% decline that we've seen since late January, but with a lower New Zealand dollar providing some buffer for local farmers.

The global demand for dairy will undoubtedly vary across products. For instance, infant formula could be considered an 'essential' item even for those under lockdown, but that's less true of the various processed foods that use milk powder or butter as ingredients. Demand from foodservices will be hit hardest while cafes, restaurants and bakeries remain closed.

At the same time, the global supply of milk has remained ample. Production among the major exporting regions was up 1% in February compared to last year (after adjusting for the extra leap day). The European Milk Board is now calling for voluntary reductions in milk production; the US, lacking such an organising body, has effectively resorted to pouring excess milk down the drain. In both cases the problem is partly due to limited processing capacity, due to lockdowns and physical distancing, but weak demand is clearly an issue as well.

Meanwhile, production in the Southern Hemisphere has not been hit as hard as feared. Australian milk collections are actually up on last year, despite the massive bushfires this summer. Drought conditions in New Zealand threatened to weigh on milk production over the tail-end of the season, but the impact has proven to be relatively small, with March milk collections down by less than 2% compared to last year.

Weak world demand and ample milk production will keep world dairy prices under pressure.

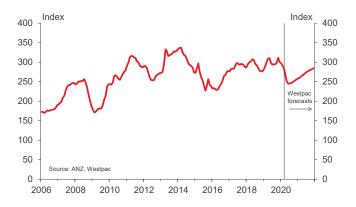
The outlook for meat exports is mixed. Prices have fallen from last year's highs, as the Chinese government has responded to the outbreak of African Swine Fever by releasing reserves of frozen pork and allowing imports from a wider range of countries. Those forces have abated for now, as China's pork reserves have been run down, and meat supplies from the US have slowed as the Covid-19 outbreak has forced the closure of slaughterhouses. This could provide some support for meat prices in the near term. However, the longer-term outlook for prices remains negative, as demand in the traditional markets for lamb (Europe and the UK) and beef (the US) is likely to be disrupted for some time.

New Zealand's forestry sector was one of the first to feel the brunt of China's lockdown, with log exports all but halted. While China's lockdown has been lifted in phases starting in mid-March, this was soon followed by New Zealand's own lockdown under Alert Level 4, which effectively reduced output to zero.

With the country now moving out of Level 4, we expect harvesting to pick up gradually in the coming months. Finding workers shouldn't be a challenge at a time when other job opportunities will be limited. However, work practices may need to change to allow for physical distancing while New Zealand remains at the higher alert levels.

China's log inventories have reduced somewhat from their previous excessive levels, as sawmilling has resumed and the flow of logs from New Zealand and Europe dwindled. This may act to stabilise prices in the short term, but the scale of the hit to global demand suggests lower log prices in the longer term.

Figure 12: New Zealand export commodity price index, world prices



Commodity price monitor

Sector	Trend	Current level ¹	Next 6 months
Dairy	Weakened world demand and continued growth in milk production are expected to keep downward pressure on dairy prices this year.	Average	7
Beef	US demand for beef has been hit hard by the outbreak, but tight supplies of protein in China should help to put a floor under prices.	Below average	2
Lamb	Different fortunes for different cuts; those traditionally sent to Europe will suffer, while those sent to Asia could see a boost as activity resumes.	Above average	2
Forestry	Prices expected to stabilise as China resumes wood processing and log inventories run down.	Below average	→
Wool	Prices expected to remain at depressed levels.	Low	→
Horticulture	Prices held up during China's Covid-19 outbreak, but the impact on other markets remains to be seen.	High	→

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

Exchange Rates.

Relative rates of recovery.

The New Zealand dollar has fallen sharply since the start of the Covid-19 outbreak, providing a partial buffer for exporters against the weakening global outlook. We expect US dollar strength to continue in the near term, but with the New Zealand, Australian and Chinese currencies picking up in late 2020 as their economies are rebooted sooner.

During the Covid-19 pandemic the New Zealand dollar has traded much in line with the swings in global sentiment, at times moving almost in lockstep with the major share price indices. This saw the currency fall by as much as 16% against the US dollar by late March, before recovering some of its losses as governments around the world unleashed a wave of measures to stabilise markets and support their economies.

With every part of the world experiencing the same shock, it's not obvious how the major currencies will perform relative to each other going forward. Relative economic performance will certainly matter, with some countries better positioned for a rebound than others. Relative interest rates will be less of a distinguishing factor for most currencies, with central bank policy rates already around zero and expected to stay there for a long time.

Our exchange rate forecasts reflect two stages. In the near term, we expect markets to focus on the scale of the fiscal response. This suggests a stronger US dollar versus the other major currencies, despite the US experiencing one of the worst outbreaks of the virus. The \$2 trillion package passed by the US Congress will provide cash flow support for households and businesses, likely much more successfully than in Europe where fiscal policy lacks co-ordination.

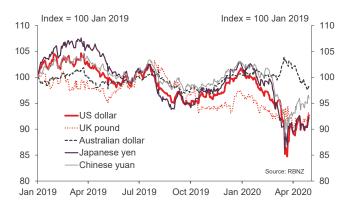
We expect the New Zealand dollar to remain under pressure during this phase, with a year-end forecast of 61 cents against the US dollar.

By the end of the year, however, we expect that markets will be turning their attention to the pace of economic recovery. The US is at least as poorly positioned as Europe in this respect; its slow response to containing the virus means that control measures will need to remain in place for an extended period.

The currencies most likely to gain during this stage are those where the economy is positioned for an early restart. That points to strength in the Chinese yuan in particular, along with some Asian currencies and the New Zealand and Australian dollars. We expect the New Zealand dollar to reach 66c by the end of next year.

Beyond the crisis phase, fiscal support measures around the world are likely to be oriented towards construction and infrastructure spending, more so than boosting household incomes. That mix will be more favourable to Australia's export commodity basket than to New Zealand's. In addition, we expect the Reserve Bank of New Zealand to take its cash rate below zero, a move that the Reserve Bank of Australia seems unwilling to consider. Consequently, we expect the NZD/AUD exchange rate to lose some ground over the coming year.

Figure 13: NZ dollar exchange rate vs major countries



Exchange rate forecasts (end of quarter)

	NZD/ USD	NZD/ AUD	NZD/ EUR	NZD/ GBP	NZD/ JPY	TWI
Jun-20	0.60	0.97	0.56	0.49	64.2	68.7
Sep-20	0.61	0.95	0.57	0.50	64.1	68.8
Dec-20	0.61	0.93	0.58	0.49	65.0	68.5
Mar-21	0.63	0.93	0.60	0.51	67.6	70.0
Jun-21	0.64	0.94	0.60	0.51	68.5	70.4
Sep-21	0.65	0.94	0.60	0.52	70.2	71.0
Dec-21	0.66	0.94	0.60	0.52	72.6	71.5
Mar-22	0.67	0.94	0.60	0.52	73.4	71.7
Jun-22	0.67	0.94	0.60	0.52	74.8	72.0
Sep-22	0.68	0.92	0.60	0.52	76.3	72.1

Economic and financial forecasts.

New Zealand forecasts

GDP components	Quarterly % change				OP components Quarterly % change Annual average % change				ıge % change	
	Dec-19	Mar-20	Jun-20	Sep-20	2019	2020	2021	2022		
GDP (production)	0.5	-1.0	-16.0	13.0	2.3	-6.3	4.7	5.2		
Private consumption	0.3	-0.4	-20.6	14.1	2.7	-9.3	5.3	7.7		
Government consumption	2.1	1.6	2.7	2.5	4.3	8.1	5.7	3.3		
Residential investment	1.8	-5.0	-14.0	10.0	4.3	-9.5	-6.4	1.5		
Business Investment	-1.2	-2.0	-12.6	9.2	2.1	-7.7	-0.5	10.1		
Exports	1.1	-2.2	-20.4	8.2	2.4	-13.5	4.4	7.4		
Imports	0.0	-3.1	-18.3	9.1	1.5	-11.5	4.3	11.7		

Economic indicators	Quarterly % change				% change	ge		
	Dec-19	Mar-20	Jun-20	Sep-20	2019	2020	2021	2022
Consumer price index	0.5	0.8	-0.4	0.8	1.9	1.3	1.0	0.7
Employment change	0.0	-0.2	-8.8	3.1	1.0	-4.6	2.8	3.6
Unemployment rate	4.0	4.3	9.5	8.5	4.0	7.7	7.1	5.8
Labour cost index (all sectors)	0.7	0.5	0.4	0.5	2.6	1.2	1.1	1.1
Current account balance (% of GDP)	-3.0	-2.7	-2.7	-2.3	-3.0	-2.4	-2.4	-3.2
Terms of trade	2.6	0.6	-1.2	-1.6	6.9	-3.1	1.2	0.4
House price index	2.4	2.4	0.0	-5.0	4.3	-4.7	3.0	11.0

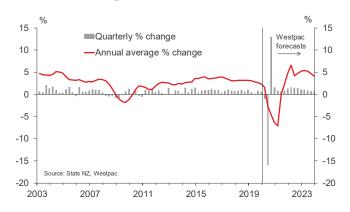
Financial forecasts	End of quarter					End o	f year	
	Dec-19	Mar-20	Jun-20	Sep-20	2019	2020	2021	2022
90 day bank bill	1.17	1.00	0.30	0.20	1.17	-0.20	-0.10	0.70
5 year swap	1.18	1.09	0.40	0.40	1.18	0.40	0.60	1.40
TWI	71.4	70.9	68.7	68.8	71.4	68.5	71.5	72.5
NZD/USD	0.64	0.64	0.60	0.61	0.64	0.61	0.66	0.69
NZD/AUD	0.94	0.96	0.97	0.95	0.94	0.93	0.94	0.92
NZD/EUR	0.58	0.58	0.56	0.57	0.58	0.58	0.60	0.61
NZD/GBP	0.50	0.50	0.49	0.50	0.50	0.49	0.52	0.52
Government bonds outstanding (\$bn)	76.4	78.5	90.2	100.0	76.4	110.0	144.0	165.0
Net core Crown debt (% of GDP)	21.0	19.3	25.6	29.9	21.0	34.4	44.2	47.5

International economic forecasts

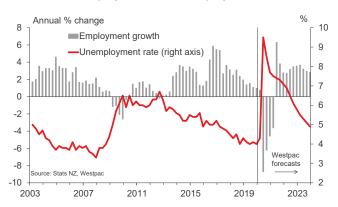
Real GDP (calendar years)	Annual average % change							
	2016	2017	2018	2019	2020f	2021f		
Australia	2.8	2.5	2.7	1.8	-5.4	4.0		
China	6.8	6.9	6.6	6.1	0.1	10.0		
United States	1.6	2.4	2.9	2.3	-6.0	1.1		
Japan	0.5	2.2	0.3	0.7	-5.0	1.0		
East Asia ex China	4.0	4.5	4.3	3.6	-2.7	5.8		
India	8.3	7.0	6.1	4.2	1.0	8.0		
Euro Zone	1.9	2.5	1.9	1.2	-8.5	1.7		
United Kingdom	1.9	1.9	1.3	1.4	-7.0	2.5		
NZ trading partners	3.6	4.1	3.9	3.5	-3.3	5.6		
World	3.4	3.9	3.6	2.8	-3.0	4.8		

The economy in six charts.

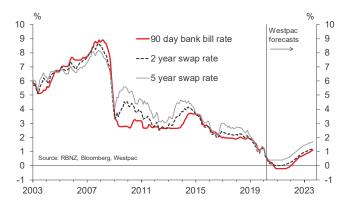
New Zealand GDP growth



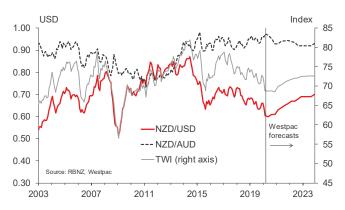
New Zealand employment and unemployment



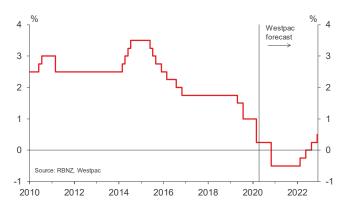
90 day bank bills, 2 year swap and 5 year swap rates



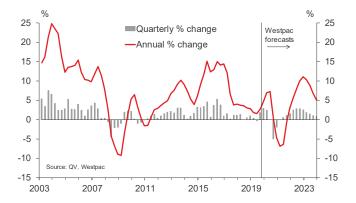
Exchange rates



Official Cash Rate



New Zealand house prices



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