Economic Impacts of COVID-19 on the Queenstown-Lakes Economy – Early Estimates

Queenstown-Lakes District Council

May 2020

Infometrics

Economics put simply

Authorship

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Executive Summary

This report provides an overview of the anticipated economic impacts of the COVID-19 pandemic for the Queenstown-Lakes District. It includes an assessment of the headline impacts of the COVID-19 lockdown as of April 2020, forecast changes to economic activity, employment and other key indicators over the year to March 2021, information on potential mobility of labour between different industries, and the outlook for construction activity out to 2024.

Our approach

Infometrics has drawn on a range of econometric and statistical models to measure the potential impact of COVID-19 on regional economies. We begin by forecasting the national macroeconomy, then translate this down to industries at a national level. Finally, we use our regional forecasting model to translate our national industry forecasts into industry forecasts at a district level. At a district-level, our forecasts can be a considered a 'do nothing' scenario, as economic development initiatives may lead to a more positive outcome.

Our assumptions

We have made a range of assumptions in modelling the effects of the COVID-19 pandemic. Our high-level assumptions for the year to March 2021 include:

- Six and a half weeks of Level 4 and 3 lock down.
- Sustained global demand for food, but a drop in demand for our non-food exports.
- International tourism spending drops by 91%, and domestic tourism spending drops by 21%.
- International education revenue halves, but is slightly offset by a growth in New Zealanders entering education and training
- House prices and construction activity take a hit
- Government stimulus includes $10b wage subsidy and benefit increases

COVID-19 presents the greatest economic shock in living memory

Although the full extent of the shock is still to play out, it is clear is that the economy will be irrevocably changed by this pandemic. The speed with which the economic outlook changed during March far exceeded anything experienced during the Global Financial Crisis (GFC) of 2008/09. Infometrics is currently forecasting a 13% contraction in economic activity in the New Zealand economy over the first half of 2020.

Queenstown-Lakes' reliance on international tourism leaves it vulnerable

Tourism overall accounts for 64% of all jobs in the Queenstown-Lakes district, and international tourists are the lifeblood of the sector, contributing 63% of all tourist spending. We expect international tourist arrivals to fall to zero over the coming 12 months, with New Zealand's borders closed due to the effects of COVID-19. We expect the recovery in international tourists to be gradual from 2021, and even by 2025 we expect arrivals will be well below pre COVID levels.

Economic activity expected to contract by 23.3%

Over the year to March 2021, economic activity (GDP) in Queenstown-Lakes is projected to contract by 23.3%, compared to an 8.0% decline nationally. The largest declines in the District will take place in Accommodation and food services (-66%); Transport, postal and warehousing (-30%); Arts and recreation services (-25%), and Construction (-16%).

Employment decline of 25.3%, 7,900 jobs lost

Employment in Queenstown-Lakes is projected to fall by 25.3% between March 2020 and March 2021, a total loss of 7,900 jobs. In percentage terms, Queenstown-Lakes is the second hardest hit district in the country behind Mackenzie District, which is also heavily reliant on international tourists. In terms of the number of jobs lost, Queenstown-Lakes is the fifth hardest hit district in the country, behind the main centres.

Unemployment to reach 18.5%

Queenstown-Lakes' overall unemployment level is forecast to rise from **1.1%** in the March 2020 quarter, to **18.5%** in March 2021. This will be double the forecast national rate of **9.0%**. This is based on the assumption that some of the workers who lose their jobs will subsequently leave the labour market (for example, to study or retrain), but all workers remain in the district. However, given the high proportion of migrant workers in Queenstown-Lakes, it is likely that a number will have either left the district before the Level Four lockdown, or will leave after losing their jobs. This will have the effect of reducing the unemployment rate.

Job losses will result in lost earnings of $270 million

As a result of forecast job losses, household earnings from wages and salaries are expected to drop by $270 million. The largest losses are associated with the accommodation and food services, and construction industries.

Construction will take a big hit

Growth in tourists and population has been behind the strong growth in Queenstown Lakes' construction activity over the past decade, pushing construction activity to peak at $901m in 2020. A backlog of construction work that is consented or already underway will cushion the fall in activity to just over $400m per year from 2023.

Low-skilled workers to bear the brunt of job losses

Job losses are expected at all skill levels, however low-skilled workers will bear the brunt of job losses. Low-skilled occupations in the accommodation and food services industry such as hospitality workers, food trades workers and cleaners and laundry are among the worst affected. The decline in overall economic activity will hit employment in a range of management roles. The decline in construction activity will affect construction professionals and trades workers.

While low-skilled workers are most able to switch industries, the general decline in economic activity means that job vacancies created through business expansion, workers retiring, or workers changing jobs will be limited and insufficient to prevent a large increase in unemployment.

Stronger tourism recovery would help

Three additional scenarios were produced to highlight how a stronger tourism recovery would affect the Queenstown-Lakes economy. The strongest of the three scenarios involves the proposed trans-Tasman bubble commencing early (in September, rather than December 2020) and the district growing its share of the domestic tourism market by 27%, thereby maintaining domestic tourism spending at the 2019 level. Under this scenario, GDP is expected to drop by 19.1%, compared to -23.3% under 'do nothing'. Employment is expected to decline by 22.9%, compared to 25.3% under 'do nothing', leading to an unemployment rate of 15.9% rather than 18.5% under the 'do nothing' scenario. This highlights that even with an aggressive tourism sector recovery, the district will be severely affected in the coming year.

Summary of key indicators

Indicator	Queenstown-Lakes District	New Zealand
Change in consumer spending (week ending 12 April 2020 compared to same period 2019)	-76%	-56%
Change in heavy traffic (week ending 9 April 2020 compared to 1 February 2020)	-86%	-60%
% working at Level 4	37%	53%
% working at Level 3	65%	74%
GDP % change, year to March 2021	-23%	-8%
Job losses, year to March 2021	-7,900	-250,522
Employment % change, year to March 2021	-25.3%	-9.8%
Unemployment rate, March 2021	18.5%	9.0%
Loss in total earnings, year to March 2021 ($m)	$-270	$-13,864
Residential construction % change, year to March 2021	-27%	-19%
Non-residential construction % change, year to March 2021	-21%	-18%

Introduction

This report provides an overview of the anticipated economic impacts of the COVID-19 pandemic for the Queenstown-Lakes District.

It includes forecast changes to economic activity, employment and other key indicators over the year to March 2021, information on potential mobility of labour between different industries, and the outlook for construction activity in the district. Three scenarios for a stronger tourism recovery are provided with analysis on how this would affect the district's recovery. An assessment of the headline impacts of the COVID-19 lockdown as of April 2020 is also provided.

The forecast analysis presented in this report draws on a suite of economic models maintained by Infometrics. Models are only as good as the assumptions we put into them and we have clearly outlined our key assumptions.

The report is intended to provide evidenced-based information and analysis to Queenstown-Lakes District Council and its key stakeholders, that can inform short-term responses to the pandemic and support long-term planning activities.

This report is accompanied by a spreadsheet set which contains all the data used to prepare this report plus additional data. It is also accompanied by a report called *Additional insights on the economic impacts of the COVID-19 pandemic* which provides information which is too detailed for this main report. The supporting document contains an expanded explanation of how COVID-19 is likely to impact the New Zealand economy and additional detail of how the pandemic will impact on each industry.

The greatest economic shock in living memory

COVID-19 presents the greatest economic shock in living memory, and although the full extent of the shock is still to play out, it is clear is that the economy will be irrevocably changed by this pandemic. The speed with which the economic outlook changed during March far exceeded anything experienced during the Global Financial Crisis (GFC) of 2008/09.

Infometrics is currently forecasting a 13% contraction in economic activity in the New Zealand economy between the December 2019 and June 2020 quarters, with most of the decline occurring in the June quarter due to the current lockdown. This contraction is set to be at least four times larger than anything seen before, so there is understandably considerable scope for error in this estimate. Over a slightly longer time horizon, our forecast is for an 8% contraction in economic activity over the year to March 2021.

By March 2022, we expect quarterly GDP to be 6.6% below its December 2019 level. We estimate the unemployment rate will peak at 9.5% in the September 2021 quarter, and to remain above 8% until the December 2023 quarter. In addition, underemployment is set to rise, while some of the unemployed will drop out of the labour force or seek out education opportunities in order to reskill. These factors will contribute to a decline in the labour participation rate, which we predict could fall to its lowest level since 2001.

Our modelling of the impacts of COVID-19 are based on key assumptions

We have made the following assumptions when modelling the effects of the COVID-19 pandemic, the economic downturn, and the government's policy responses on the New Zealand economy. For Queenstown-Lakes, this represents a 'do nothing' scenario. Factors that may improve the outcome over this scenario include an earlier-than-expected trans-Pacific bubble, higher government infrastructure stimulus, or a higher share of domestic tourists visiting the district. Weaker than expected visitor spending, or greater job losses due to business failure, may result in a poorer outcome than presented.

Appendix I describes our modelling approach.

Lockdown is 4½ weeks at Level 4 and 2 weeks at Level 3

Following the Prime Minister's announcement on April 20 of the expected timeline for the COVID Alert Level 4 and Level 3 conditions, we have based our industry employment and output modelling on Level 4 being in place for 4½ weeks and Level 3 being in place for two weeks.

Across the entire economy, we estimate that approximately 65% of economic activity can take place under Level 4. This estimate includes people that can work from home and those people working in essential services. Under Level 3, our estimate of potential economic activity taking place rises to 82%. Obviously, the effects of Alert Levels 3 and 4 on specific industries vary significantly.

We have not made economy-wide adjustments for conditions in Alert Levels 1 or 2 because the constraints on activity are much less widespread. Instead, we have made specific targeted adjustments to industries associated with tourism (see below). These industries will be the most heavily and directly affected by COVID-19 over the medium term, almost irrespective of the alert levels implemented by the government at any particular point in time.

Sustained global demand for food, but non-food exports will be knocked hard

Forecasts of global economic growth for 2020 are being rapidly revised lower due to the COVID-19 pandemic, lockdown conditions, and negative effects on economic activity around much of the world. Between February and April, Consensus forecasts for global growth during 2020 have slumped from +2.3% to -2.5%. We have modelled on the assumption that further revisions to Consensus forecasts will take this figure to -5.0% or below. Our working assumptions for economic growth overseas this year are as follows:

- China 2.0%
- Australia -3.6%
- North America -5.3%
- Western Europe -8.4%

- Latin America -4.2%
- Eastern Europe -6.9%

This downturn will have some effect on New Zealand's agricultural export prices for products such as dairy, meat, and horticulture. However, the fact that people still need to eat during a recession will limit the pressure on our agricultural producers. Furthermore, the drop in the New Zealand dollar, from US67c at the start of the year to below US60c, has offset some of the decline in international prices.

The most pressure will come on non-food exports such as forestry and manufactured products. Putting aside the disruption to movements of goods that occurred early in the year with the shutdown of ports in China, weaker incomes and spending around the world will limit both business and consumer demand for manufactured products.

During 2009, we saw a 5.9% decline in New Zealand's non-food manufactured export volumes. With the current global downturn being significantly larger than the Global Financial Crisis (GFC), we have allowed for a 16% contraction in volumes over the coming year. Alongside this drop, we have also assumed a 9.5% reduction in international demand for unprocessed forestry exports such as logs.

Foreign tourism tanks by 91%

We expect New Zealand's borders to effectively remain closed for a year, with either complete closures or, at a minimum, a mandatory 14-day quarantine requirement for people arriving from overseas. However, we also recognise that there is scope for a trans-Tasman or wider Polynesian travel "bubble" to be introduced later in the year if COVID-19 infection conditions allow. We have assumed that this "bubble" could be implemented from December onwards, and could result in 50% of usual tourist travel on NZ-Australia and NZ-Pacific Island routes.

Travel up until November will be very limited – we have allowed for visitor numbers to be at just 0.8% of their usual levels. This figure allows for a small amount of non-holiday travel, and it is equivalent to total international arrival numbers (including returning New Zealanders) for the week to 14 April 2020. We have also maintained this assumption for countries outside Australia and the Pacific Islands beyond November 2020, on the basis that COVID-19 case numbers overseas will warrant ongoing strict controls. The allowance for small visitor flows in and out of New Zealand recognises there will be some people who are required to travel for work purposes.

Taken together, these assumptions result in an estimated 91% or $11.6bn reduction in foreign demand for tourism over the coming year, and a similarly sized reduction in New Zealand demand for international tourism.

Domestic tourism spending drops by 21%

With New Zealanders effectively unable or unwilling to travel overseas during the coming year, at least some of the pool of $5.4b that was spent on international tourism during 2019 is likely to be spent on holidays within New Zealand instead.

Having looked at domestic and international tourism spending patterns, we estimate that total spending on a holiday in New Zealand is likely to be about 69% of what would be spent on an equivalent holiday overseas. Some of this gap arises because a domestic holiday will naturally involve less spending on airfares. Furthermore, people on holiday within their own country also tend to spend less, on average, on both accommodation and eating out.

Reallocating this proportion of overseas tourism spending by New Zealanders to domestic spending results in a total pool of about $21b of potential spending for the coming year. However, the economic downturn will have a negative effect on people's willingness to spend on travel and holidays. For example, there was an 8.6% drop in annual spending on restaurants and hotels between March 2008 and December 2009 during the GFC.

Furthermore, there have been severe limitations on people's ability to travel domestically during the 6½ weeks of Level 3 and Level 4 lockdown, and these restrictions will only be partially relaxed when we move to Alert Level 2. We note that The Treasury's Scenario 1 assumes we could remain in Alert Levels 1 and 2 for a total of 10 months, although the specific timings across each of these Alert Levels is not stated.

Taking all these considerations together, we estimate that spending on domestic holidays over the coming year could be constrained by 35%. After incorporating the increased pool of potential spending due to a lack of international travel, these constraints imply a 21% decline in domestic tourism spending from the previous year.

We have also analysed three stronger tourism recovery scenarios, based on an early start to the trans-Tasman bubble, Queenstown-Lakes gaining a higher share of domestic tourism spending, and combination of the two.

International education revenue halves

Data up to 2018 shows that, for international fee-paying students in New Zealand, 50% were enrolled at Single Data Return (SDR) providers such as universities and polytechnics, 31% were enrolled at non-SDR providers that largely cater to international students, and 20% were enrolled at primary and secondary schools. We have made differing assumptions about how each of these providers will be affected.

We have assumed that non-SDR providers will be knocked heavily, with the relatively short nature of many of their courses meaning they are not conducive to students being quarantined for two weeks on arrival in the country. We expect an 82% reduction in student numbers over the coming year, with virtually all the surviving revenue arising from students who were already in the country before border restrictions were implemented. This assumption is based on media reports suggesting about 3,000 of the 17,000 students that would normally be trained at English language schools during the year were already here and being taught when the border closures occurred.

In early April, Universities New Zealand's chief executive Chris Whelan stated that universities are facing a 25-33% reduction in international student numbers this year. In our view, this expected decline might prove to be too small, particularly given that there must be serious doubts about the mid-year intake of students that would normally occur in July. We have opted for a bigger reduction in international student revenue across all SDR providers, with universities retaining 62% of their international student revenue this year – mostly thanks to students who were already in the country in January and February. Our figure has also been informed by Immigration NZ's visa approval data for March, which showed a 43% reduction in student visa approvals compared with March 2019.

International education at a primary and secondary level will be less affected by the pandemic and border closures, given that the school year started in early February before most of the effects of COVID-19 appeared in New Zealand. We are aware that some students will have chosen to return home, and that students that might have come later in the year will now not do so. We have allowed for the number of international students at schools this year to be 79% of normal levels.

Taken together, these figures imply a 49% reduction in international education revenue during 2020, which we have included in our modelling.

Domestic education picks up some of the slack

During periods of labour market weakness, there is an increased propensity of people to leave, or stay out of, the workforce and undertake study instead. For example, between 2008 and 2010, the number of domestic equivalent full-time tertiary students (EFTS) increased from 235,100 to 254,500, a rise of 8.3%. This lift contrasts with the periods of labour market strength between 2004 and 2008, and again between 2012 and 2018, when domestic EFTS numbers fell by 3.3% and 10.4% respectively.

Demographic factors, such as the number of school leavers, can also play a role in determining overall student numbers. Between 2008 and 2010, over half the increase in student numbers could be attributed to a lift in the number of students completing secondary school compared with three years prior. In contrast, since about 2012, the number of Year 13 students has been relatively stable, meaning that any changes in total tertiary student numbers now are more a reflection of economic conditions or other factors influencing training choices, such as the government’s tertiary fees-free scheme.

Bearing these factors in mind, we have allowed for a similar lift in total demand for tertiary training over the coming year as we saw following the GFC. However, the change in demographic trends compared with a decade ago means that the implied increase in underlying demand for training will be greater than in the wake of the GFC.

House prices and construction activity take a hit

The substantial rise in unemployment associated with many of the outcomes summarised above will have a significant negative effect on the housing market. Furthermore, border closures for the next year mean that net migration will be close to zero, and population growth is set to drop to a 30-year low of 0.5%pa. These results will limit the number of potential buyers in the housing market as well as considerably reducing underlying demand for new housing.

Our assumptions include an 11% drop in average house prices between mid-2020 and the end of 2021. We note that house price falls in the short-term will be restrained by the mortgage holiday scheme that the government has negotiated with retail banks. Nevertheless, this housing market downturn will drag down the rate of new residential construction, particularly given that banks are likely to be very reluctant to finance property development over the next year. Nationally, we estimate the value of residential building work put in place to decline by 19% over the year to March 2021.

Non-residential construction activity will also come under downward pressure given declines in key drivers for space such as employment, household spending, and tourism activity. We estimate the value of non-residential work put in place to decline by 18% over the year to March 2021

In contrast, prospects for civil construction are positive outside Level 4 lockdown conditions. Nevertheless, we are cautious about the potential for an immediate lift in activity caused by government stimulus through Crown Infrastructure Partners and other mechanisms. Although there is likely to be faster growth in infrastructure activity over the medium term, we anticipate that planning, design, and consenting requirements will prevent more rapid growth in work until 2022.

Government stimulus includes $10b wage subsidy and benefit increases

We have made allowances for two major government initiatives in our modelling. The first of these initiatives is the wage subsidy scheme, which represents a cash injection of approximately $10b to businesses to help meet their labour costs. The total fiscal cost of this scheme has risen over time, although the rate of increase appears to have slowed over the last week or so.

We note that there could be scope for the scheme to be extended beyond 12 weeks for selected businesses that continue to be negatively affected under Alert Level 2, although the government has not made any strong signals about an extension at this stage. Indeed, an extension of the scheme might not be sufficient to secure the ongoing viability of many businesses that are dependent on tourism activity anyway.

The second initiative we have included in our modelling is the one-off increase in social welfare benefits of $25 per week. This change represents a boost to aggregate household incomes of around $2.5b. In tandem with the wage subsidy scheme, this additional money from the government will mitigate the negative effects of falling employment on overall household incomes. In doing so, the policies will also limit the decline in household consumption spending that results from the economy's downturn.

There is obviously significant potential for additional government stimulus to be introduced in coming weeks and months. Further fiscal initiatives are likely as the public health response to the COVID-19 pandemic becomes less critical and more of the policy focus turns to measures that could help drive the economic recovery. The government's 2020 Budget is due to be announced on May 14, and this date will be a key one.

At this stage, we have not made any specific allowance for additional fiscal measures. In our view, it is likely that their effectiveness in accelerating economic growth is likely to be limited within the next 12 months. We expect the negative effects of the pandemic, the lockdown, and the failures of tourism and hospitality businesses will continue to ripple through the economy for some time. These effects will weigh heavily on business and consumer confidence, influencing spending and investment decisions, and reducing the immediate effectiveness of any government initiatives designed to try and boost economic growth.

Queenstown-Lakes will take a bigger hit than most districts

All districts and regions in New Zealand will be hard hit by the pandemic. Queenstown-Lakes faces the second largest percentage fall in employment in the country due to its heavy exposure to international tourism.

By contrast, the least affected districts are those whose economies are dominated by the primary sector and with large food manufacturing sectors including South Waikato, Western Bay of Plenty, Manawatū, and Tararua Districts.

Queenstown-Lakes will be acutely affected by the pandemic for the following reasons.

Queenstown-Lakes is highly exposed to international tourism

International tourists contribute 63% of all tourist spending in Queenstown-Lakes. Tourism is not traditionally defined as a unique industry (it comprises parts of various industries), however we estimate that tourism directly supports 64% of the districts' jobs across a range of industries including accommodation and food services, and arts and recreation services.

We expect international tourist arrivals to fall to zero over the coming 12 months, with New Zealand's borders closed due to the effects of COVID-19. While international tourist may start coming back in 2021, the recovery will be gradual, and even by 2025 we expect arrivals will be well below pre-COVID levels.

International air travel will be more scarce and expensive due to a reduction in airline capacity and greater health screening requirements. Capacity in airlines, tourism and hospitality is likely to be lost through the downturn, and take some time to recover. Furthermore, New Zealand's international tourist markets will change, with declining popularity in the important Chinese market pre-COVID and a shift in approach from a volume model to one of higher value-add.

We do expect an increase in domestic tourism, however this won't come close to offsetting the loss of international tourism.

The drop in tourism will slash demand for construction

Construction is a major employer in the district (15% of workers) and is hugely reliant on the tourism sector for work – for example, 30% of non-residential construction activity in Queenstown-Lakes in 2019 related to accommodation, compared to 12% nationally. Furthermore, job losses in tourism will cut demand for new housing and flood the housing market with former AirBNB units, slashing residential construction. While the construction sector is likely to continue working through previously consented work for the remainder of 2020, workloads are projected to nearly halve in 2021 and decline further in 2022.

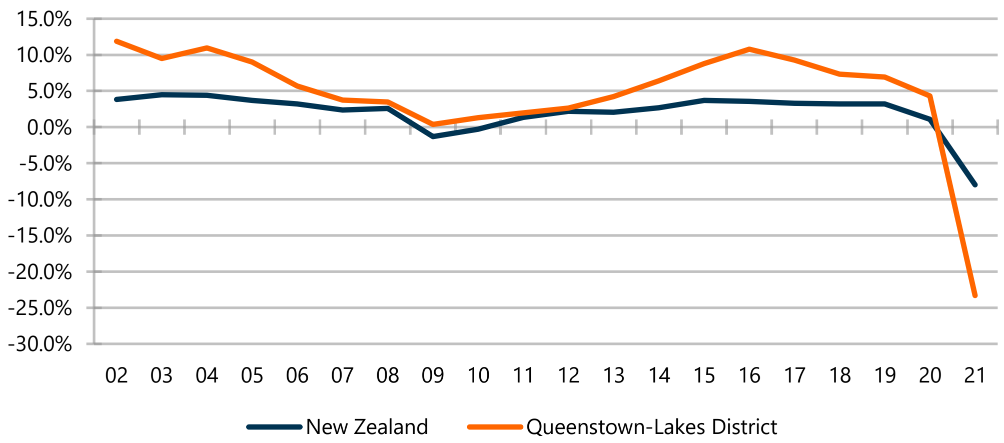
Queenstown-Lakes lacks diversification or export-focussed industries

Resilient districts across New Zealand tend to have a diversified industry base and strong export-focused industries such as agriculture and food manufacturing. Agriculture and food manufacturing accounted for 3% of Queenstown-Lakes' employment in 2020, compared to 9% nationally. While this is not something that Queenstown-Lakes can change, it goes someway to explaining why the effect of COVID is so severe on the district.

Queenstown-Lakes' economy will contract by 23.3%

Queenstown-Lakes' GDP is forecast to contract by 23.3% ($633 million) over the year to March 2021, compared with 8.0% in the national economy. This is far more severe than previous economic cycles, as Queenstown-Lakes' economy was relatively unscathed during the Global Financial Crisis.

Chart 1. GDP growth, 2002-2021



Accommodation and food services will take the biggest hit

The largest declines in the District will take place in accommodation and food services (-$361.9m, -66.1%); transport, postal and warehousing (-$49.6m, -29.9%); arts and recreation services (-$46.4m, -25.6%), and construction ($58.6m, -16.4%).

Chart 2. GDP changes by broad industry, 2020-2021 ($millions)

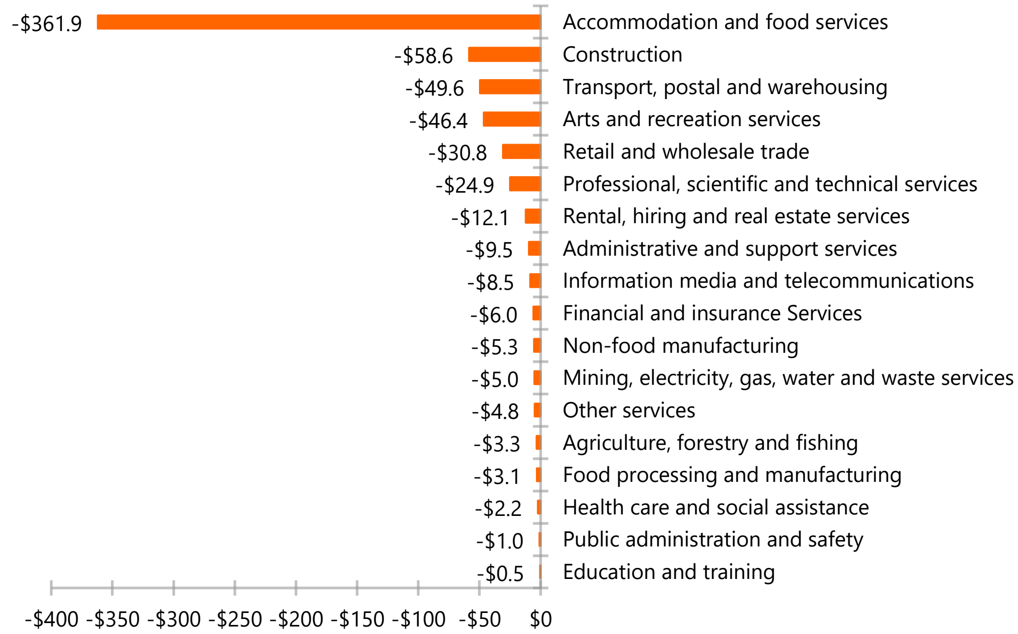
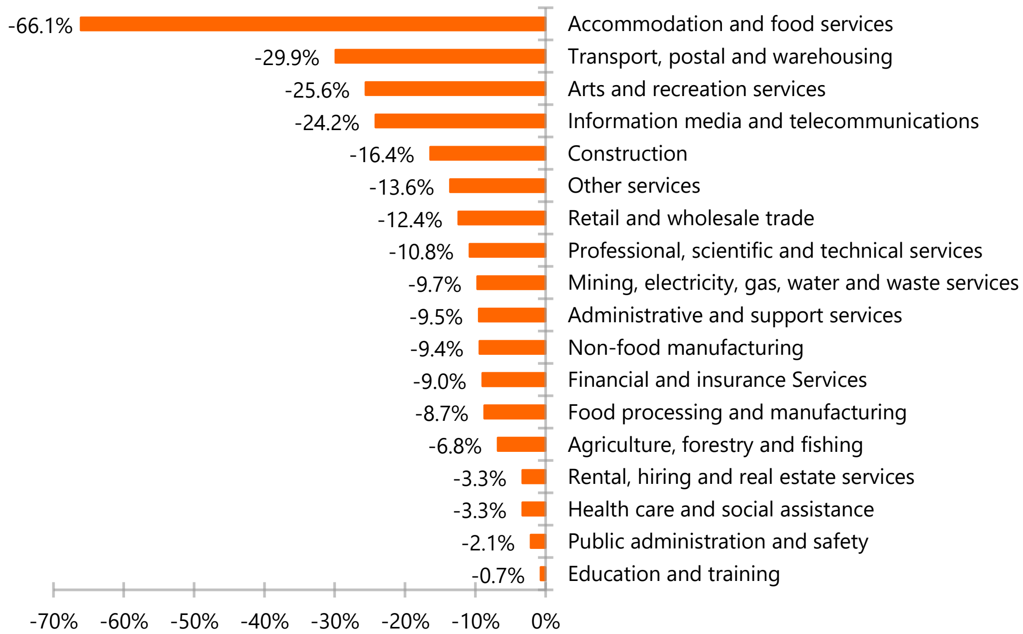


Chart 3. GDP percentage change by broad industry, 2020-2021



- **Accommodation and food services** will be arguably the most heavily affected part of the economy by the COVID-19 pandemic and its aftermath. The disappearance of international tourism and declines in domestic tourism and other discretionary spending are key factors in the industry's contraction. Activity will continue to be severely constrained under COVID Alert Level 3, while domestic travel will also remain restricted under Alert Level 2.

- **Arts and recreation services** will face a dramatic fall in demand as the stream of tourists rapidly dwindles. Operators of attractions and activities such as jetboating and bungy jumping may mothball their facilities in the near term and face dramatically lower demand for the foreseeable future. The ability to sell experiences to locals and domestic tourists will be constrained by a reduction in discretionary spending and restraints on what services and products can actually be offered to consumers under Alert Levels 2 and 3. Ongoing border restrictions are also set to disrupt the ability of promoters to run events where they are reliant on entertainers or sportspeople coming into New Zealand from overseas.

- **Construction** activity was close to peaking even before the COVID-19 pandemic occurred. Rising unemployment, falling house prices, slower population growth, and tighter bank lending conditions will all weigh on activity over the next 1-2 years across both the residential and non-residential subindustries. Houses previously used for short term visitor accommodation, such as AirBNB, are likely to likely to flood the housing market, dampening demand for new residential construction. Non-residential construction that is already underway may continue, however demand will be weak going forward as there will be little demand from the tourism sector for construction of hotels and attractions. Prospects for infrastructure look more promising given the government's desire to use this channel to try and stimulate the economy's recovery. We also note that strong growth in the population and building stock over recent years has increased the baseline level of maintenance work that needs to be done, mitigating the downturn for those parts of the industry that tend to be less cyclical.

- **Transport, postal, and warehousing** has been significantly affected by the pandemic. The largest effects are on air transport and scenic and sightseeing transport due to the downturn in tourism activity. As is the case for accommodation and food services, these effects will continue long after the lockdown ends. Other parts of the transport and logistics industry have been weakened by factors such as reduced commuter travel and cutbacks in distribution and freight requirements caused by the lockdown. Some of these effects will start to reverse out with a pick-up in online spending outside Level 4, but this positive influence on activity is likely to be outweighed by the reduction in overall spending caused by the weaker labour market and incomes.

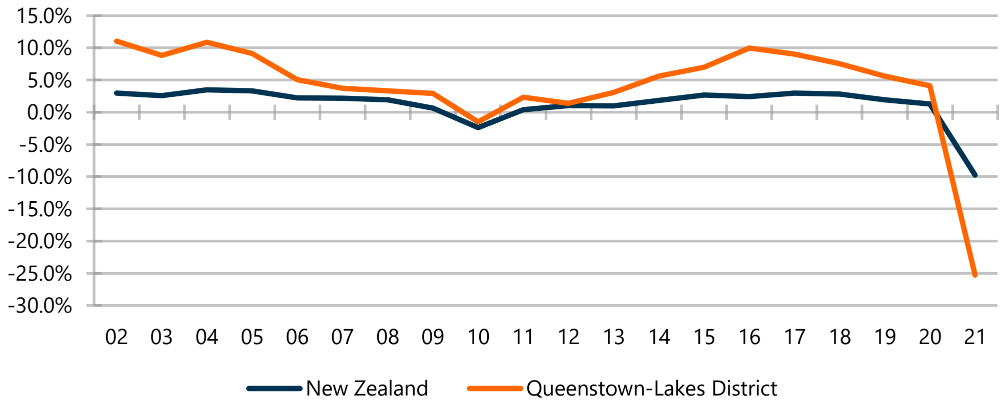
Employment will shrink by 7,900 jobs

Employment in Queenstown-Lakes is expected to decline from over 31,200 in the year to March 2020 to approximately 23,300 in the same period to March 2021, a decline of 25.2% or over 7,900 jobs. This compares to a nationwide decline in employment of 9.8%.

The fall in employment of 25.2% places Queenstown-Lakes as the second hardest hit district in the country, behind Mackenzie District, and just ahead of Kaikoura and Westland. The hallmark of all four districts is their reliance on international tourism which is also heavily reliant on international tourists.

In terms of the number of jobs lost, Queenstown-Lakes is the fifth hardest hit district in the country, behind the Auckland, Christchurch, Wellington and Hamilton. Employment in these main centres is expected to fall by around 10%, however, as they have larger workforces than Queenstown, the number of jobs lost is greater.

Chart 4. Employment growth, 2002-2021



The largest job losses are forecast to be in the **accommodation and food services** (-4,439 jobs, -66.3%), **construction** (-812, -17.3%), **retail and wholesale trade** (-601, -15.3%), **arts and recreation services** (-510, -24.8%), and **transport, postal and warehousing** (-391, -29.8%) industries.

Chart 5. Employment changes by broad industry, 2020-2021

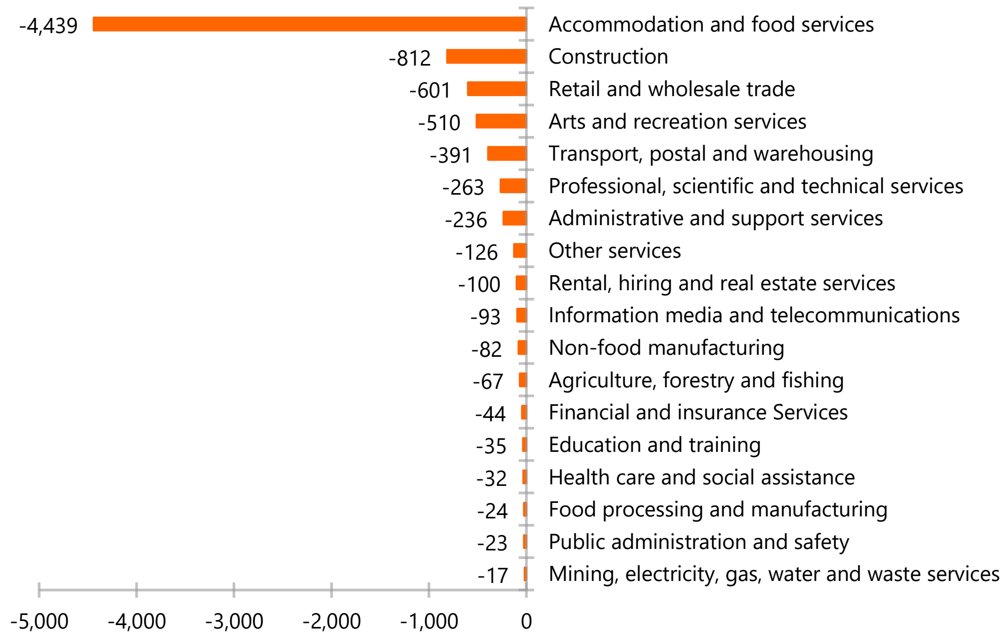
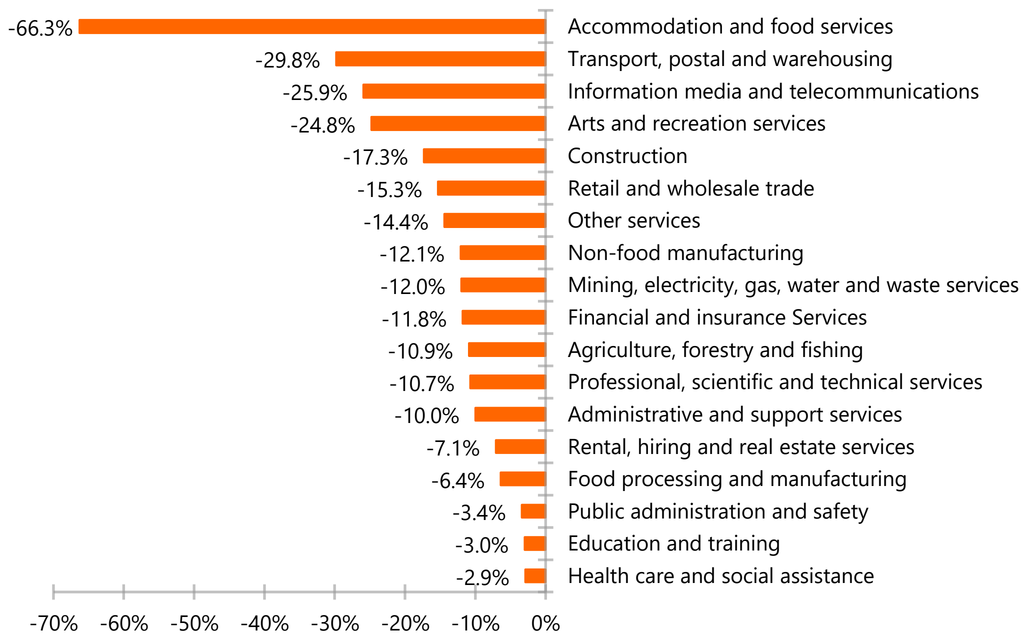


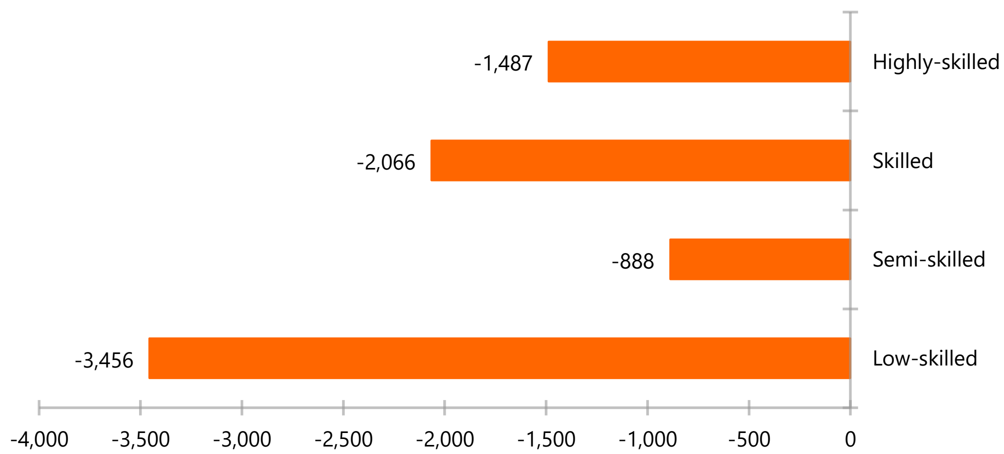
Chart 6. Percentage change in employment by broad industry, 2020-2021



Low-skilled workers to bear the brunt

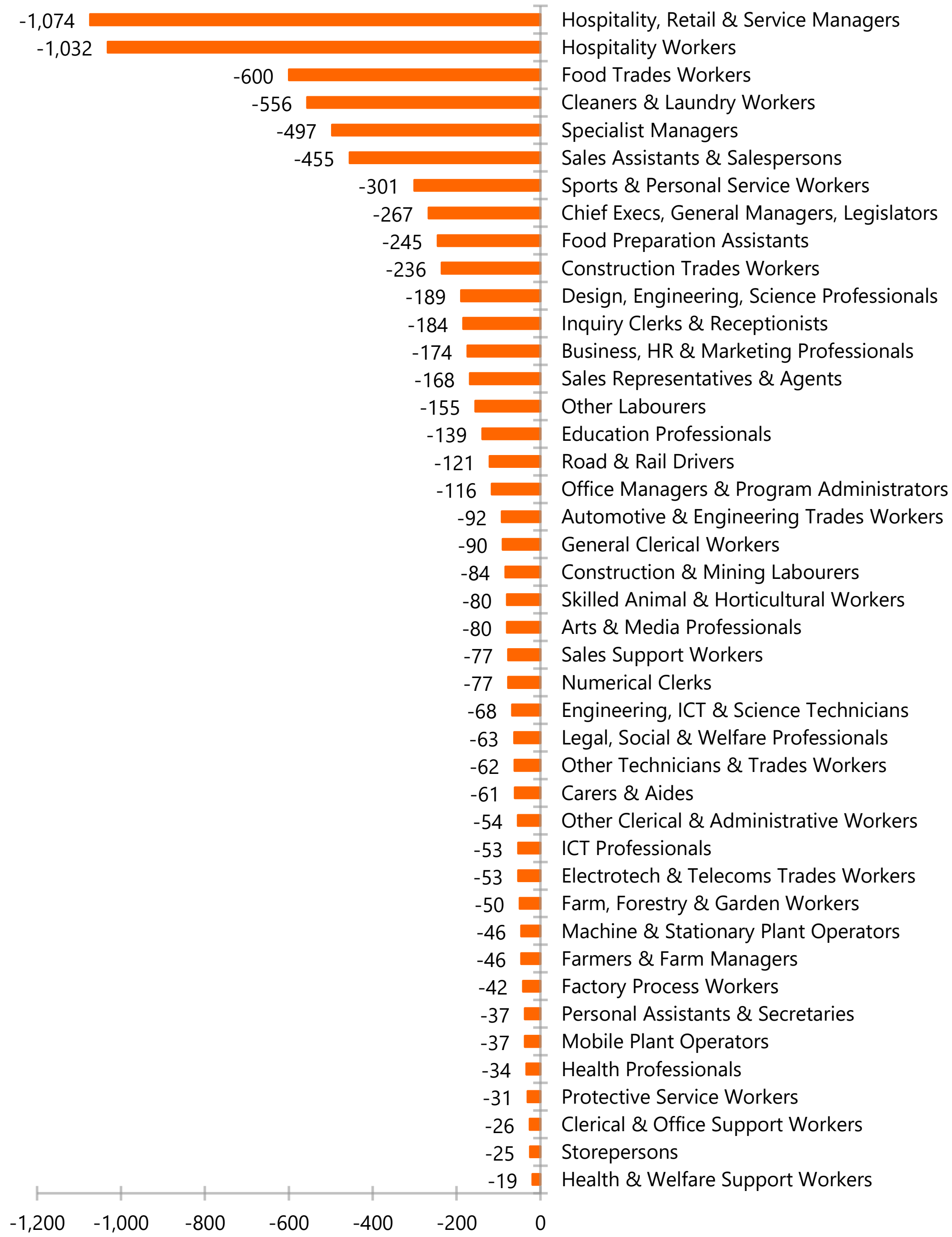
Substantial job losses are expected across all skill levels, with the greatest losses expected to occur in in **low-skilled** occupations (-3,456 jobs, -29.7%), which is a function the concentration of low-skilled workers in the hard-hit **accommodation and food services** industry. This manifests in the occupations of **hospitality workers** (-1,032, -64.7%), **food trades workers** (-600, 60.2%) and **cleaners and laundry workers** (-556, -38.8%).

Chart 7. Employment changes by skill level, 2020-2021



The hardest hit occupation is expected to be **hospitality, retail and service managers** (-1,074 jobs, -44.9%) which accounts for the majority of the job losses in **skilled** occupations (-2,066, -37.3%). The decline in construction activity leads to job losses in a range of occupations such as **design, engineering, science professionals** (-189, -16.3%) and **construction trades workers** (-236, -18.4%).

Chart 8. Employment changes by occupation, ANZSCO Level 2, 2020-2021

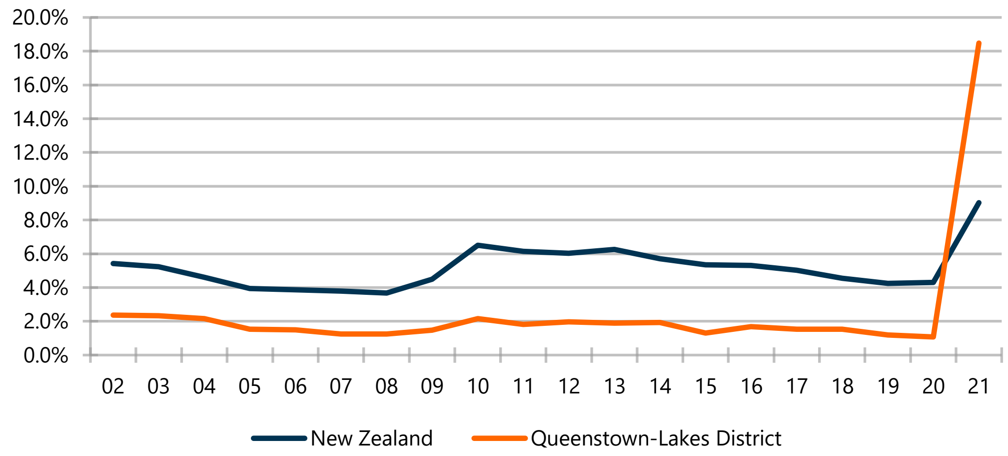


Job losses will push unemployment to 18.5%

Queenstown-Lakes' overall unemployment level is forecast to rise from **1.1%** in the March 2020 quarter, to **18.5%** in March 2021. This compares to a forecast national unemployment rate by March 2021 of **9.0%**.

This is based on the assumption that labour force participation rates will drop to historically low levels as some displaced workers will subsequently leave the labour market. This will manifest as workers retiring early, taking up study, or giving up on looking for a job. We have assumed that all workers remain in the district, however, given the high proportion of migrant workers in Queenstown-Lakes, it is likely that a number will chose to leave the district. This will have the effect of reducing the district's unemployment rate below what has been forecast.

Chart 9. Unemployment rate, 2002-2021



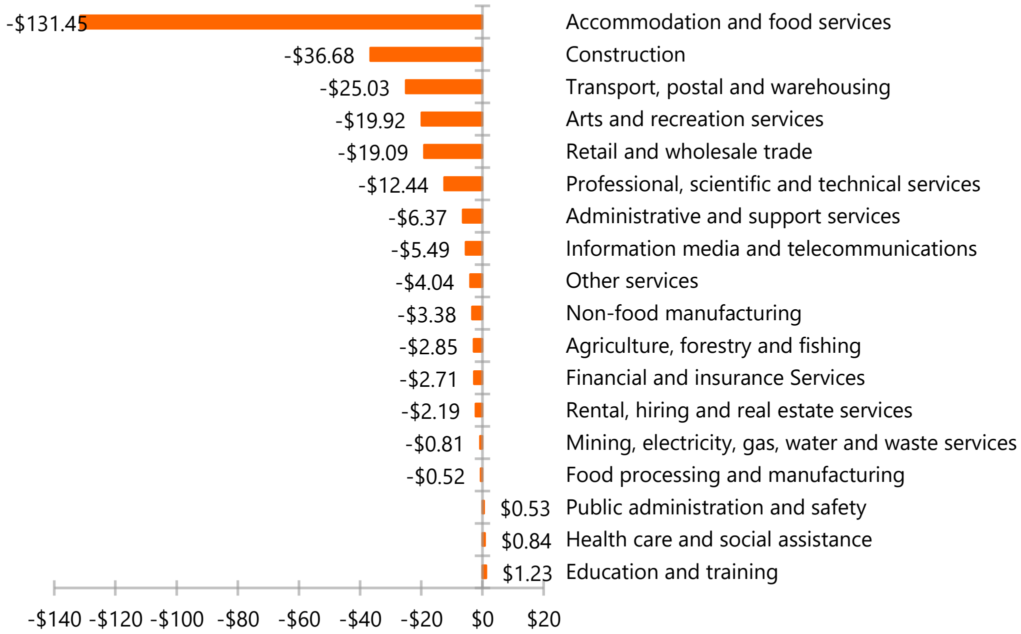
And result in lost earnings of $270 million

Earnings in the Queenstown-Lakes District are forecast to decline by $270 million (-16.3%) in the year to March 2021. Earnings include salaries and wages, but exclude other sources of income such as dividends and interest, and is thus smaller than the drop in GDP.

The largest declines are expected to occur in the **accommodation and food services** (-$131m, -61.8%), **construction** (-$37m, 12.7%), **transport, postal and warehousing** (-$25m, -26.5%), **arts and recreation services** (-$20m, -20.3%), and **retail and wholesale trade** (-$19m, -10.8%).

A small increase in earnings forecast in the **public administration and safety, health care and social assistance** and **education and training** industries.

Chart 10. Earnings changes by broad industry, 2020-2021 ($million)



If tourism recovers more strongly

Our ‘do nothing’ scenario is based on the assumption that domestic tourist spending falls by 21% due to COVID-19, and international tourist spending falls by 91% with a trans-Tasman bubble opening in December 2020.

Given Queenstown-Lakes’ reliance on tourism, we have modelled three additional scenarios based on stronger tourism recoveries:

1) **Early trans-Tasman bubble**. Based on the trans-Tasman bubble opening three months earlier, in September 2020. This would bring an additional $139m spending into the district compared to ‘do nothing’.

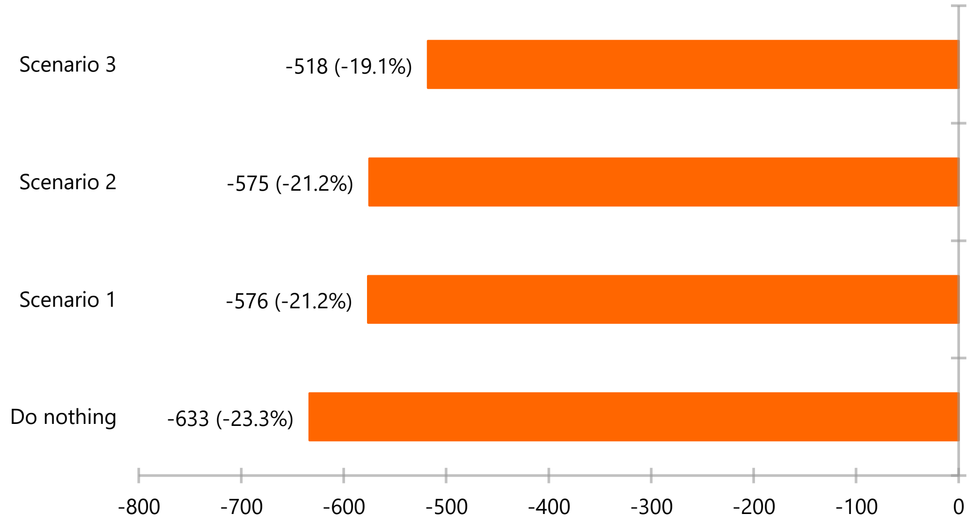
2) **Higher share of domestic tourism spending**. Based on Queenstown-Lakes growing its share of domestic tourism spending by 27%. This would mean that despite a national reduction in domestic tourism spending, the value of domestic tourism spending in Queenstown-Lakes would hold steady at 2019 levels. This would bring an additional $176m spending into the district compared to ‘do nothing’.

3) **Early trans-Tasman bubble and higher domestic share**. Based on scenarios 1 and 2 both taking place. This would bring an additional $315m of spending into the district compared to ‘do nothing’.

All three scenarios represent overall tourism spending well below pre-COVID levels, meaning that there are unlikely to be capacity constraints in the district’s tourism sector. However, all scenarios are predicated on sufficient airline capacity and significant marketing efforts. This needs to be seen in the context of a drop in visitor spending across New Zealand and Australia, which means that marketing efforts by Queenstown-Lakes will need to compete aggressively against similar efforts from other regions.

The stronger tourism recovery scenarios result in a lesser decline in GDP than the 'do nothing' scenario. Under the 'do nothing' scenario, GDP is expected to decline by $633m (-23.3%) over the year to March 2021. This reduces to a decline of $576m (-21.2%) with an early trans-Tasman bubble, $575m (-21.2%) with a higher domestic share, and $518m (-19.1%) with both an early trans-Tasman bubble and higher domestic share.

Chart 11. Change in GDP March 2020 to March 2021 by recovery scenarios, $m

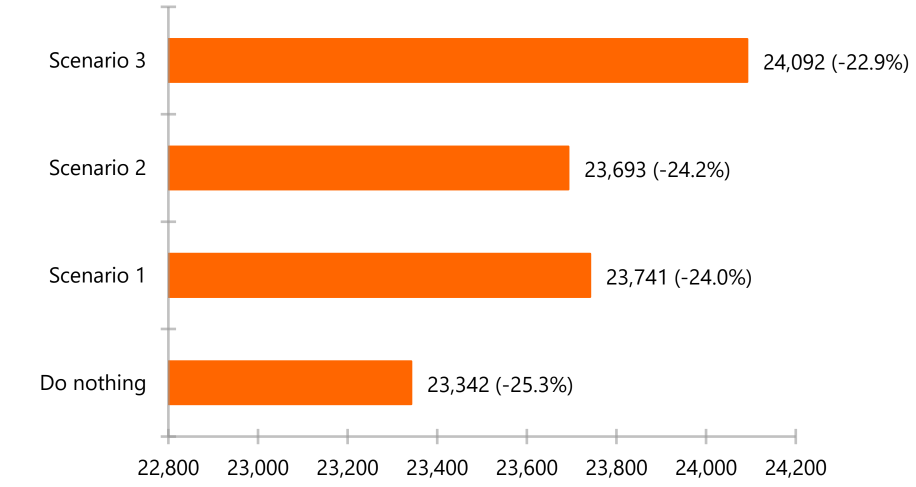


Under the 'do nothing' scenario, employment is projected to decline by 7,900 jobs (-25.3%) by March 2021. The stronger tourism recovery scenarios lead to a lesser decline in employment, a decline of 24.0% under the early trans-Tasman bubble scenario, amounting to 399 more jobs than 'do nothing'. Under the higher domestic share scenario, the decline of 24.2% amounts to 351 more jobs than 'do nothing'. Under the early trans-Tasman bubble and higher domestic share scenario, employment is projected to decline 22.9%, amounting to 749 more jobs than the 'do nothing' scenario.

The employment effects of a stronger tourism recovery are concentrated in three industries - accommodation and food services (513 more jobs than 'do nothing' under the trans-Tasman bubble and higher domestic share scenario), transport, postal and warehousing (69 more jobs) and arts and recreation services (101 more jobs).

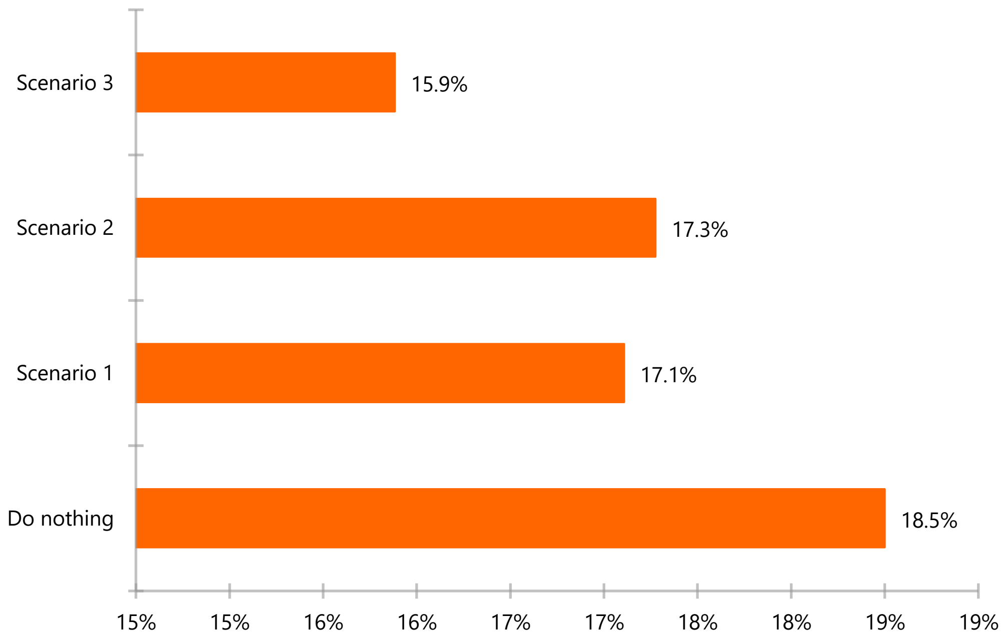
This correlates with the occupations set to gain the most under a stronger tourism recovery. In the early trans-Tasman bubble and higher domestic share scenario, employment of hospitality, retail and service managers is projected to be 127 higher than the 'do nothing' scenario, hospitality workers 97 higher, cleaners and laundry workers 68 higher, and food trades workers 60 higher. Smaller gains are also expected in sales, clerical and and personal service (tour guide) occupations within the three industries identified above.

Chart 12. Employment in March 2021, by tourism recovery scenarios



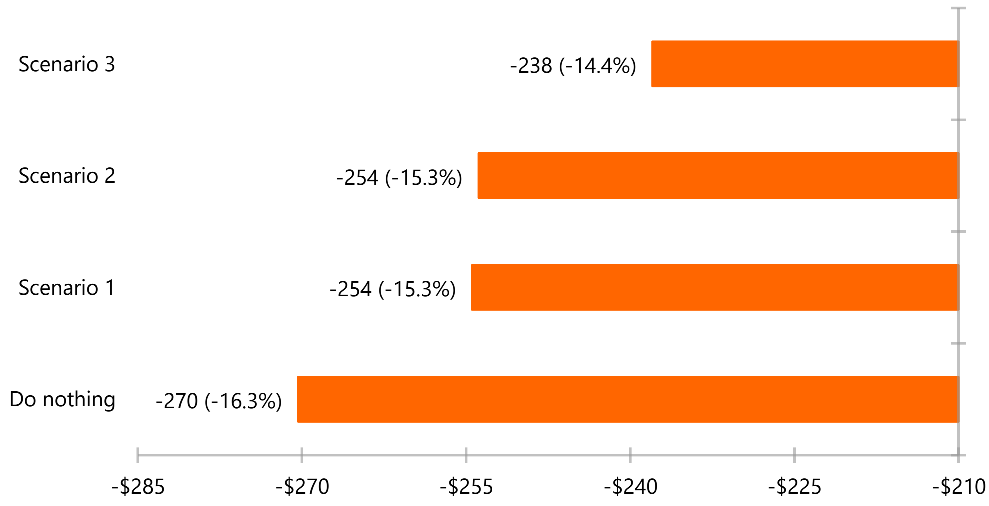
As a result of lesser employment decline under the tourism recovery scenarios, the unemployment rate in March 2021 is also expected to be lower than the 'do nothing' scenario. While the 'do nothing' scenario is expected to lead to a 18.5% unemployment rate, this drops to 17.1% under the early trans-Tasman bubble scenario, 17.3% under the higher domestic share scenario, and 15.9% under the early trans-Tasman bubble and higher domestic share scenario.

Chart 13. Unemployment rate in March 2021, by tourism recovery scenarios



Earnings in Queenstown-Lakes are forecast to decline under all scenarios, with a decline of $270m in the year to March 2021 under the 'do nothing' scenario. Due to lesser declines in employment, earnings drop by $254m under the early trans-Tasman bubble scenario, $254m under the higher domestic share scenario, and $238m under the combined early trans-Tasman bubble and higher domestic share scenario.

Chart 14. Change in earnings March 2020 to March 2021 by recovery scenarios, $m

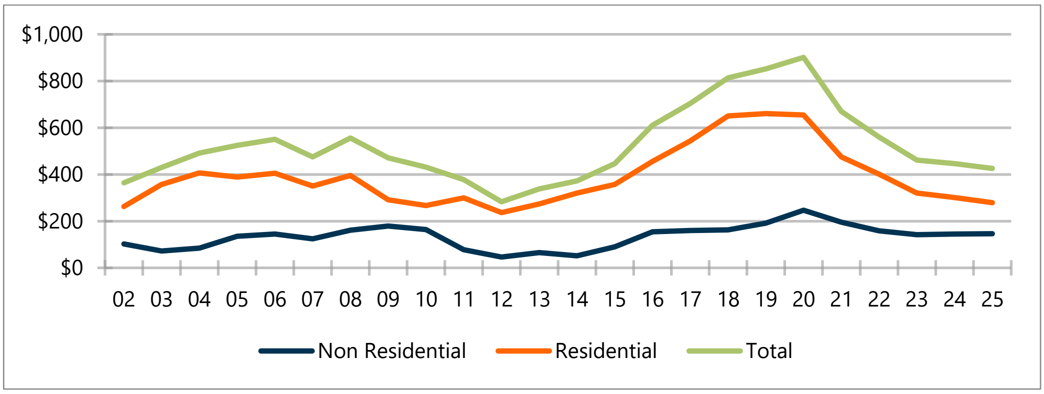


Construction will take a big hit

Growth in tourism has been a prime driver behind construction activity in the district. Construction activity reached a peak of $901m in the year to March 2020 as the industry built hotels, visitor attractions, retail space and residential housing. According to the Infometrics Regional Construction Outlook, both residential and non-residential building activity is expected to steadily decline in the coming years as existing consented projects are completed. From 2023 onwards, construction activity is expected to sit just over $400m, about half the previous peak.

Further hotels, retail space and attractions are unlikely to be required in the near term as visitor numbers dwindle, although some operators may choose to invest in new facilities for the future. There may be limited government stimulus for "shovel-ready" projects, however we have not accounted for this due to a lack of detail on how much of this stimulus will go into Queenstown-Lakes district. Demand for residential construction is also expected to dwindle as the departure of migrant workers frees up housing, as well as the shift of former AirBNB accommodation to owner-occupiers or the private long-term rental market.

Chart 15. Construction work put into place by year ($millions, constant 2019 prices)



The Level 4 lockdown has hit Queenstown hard

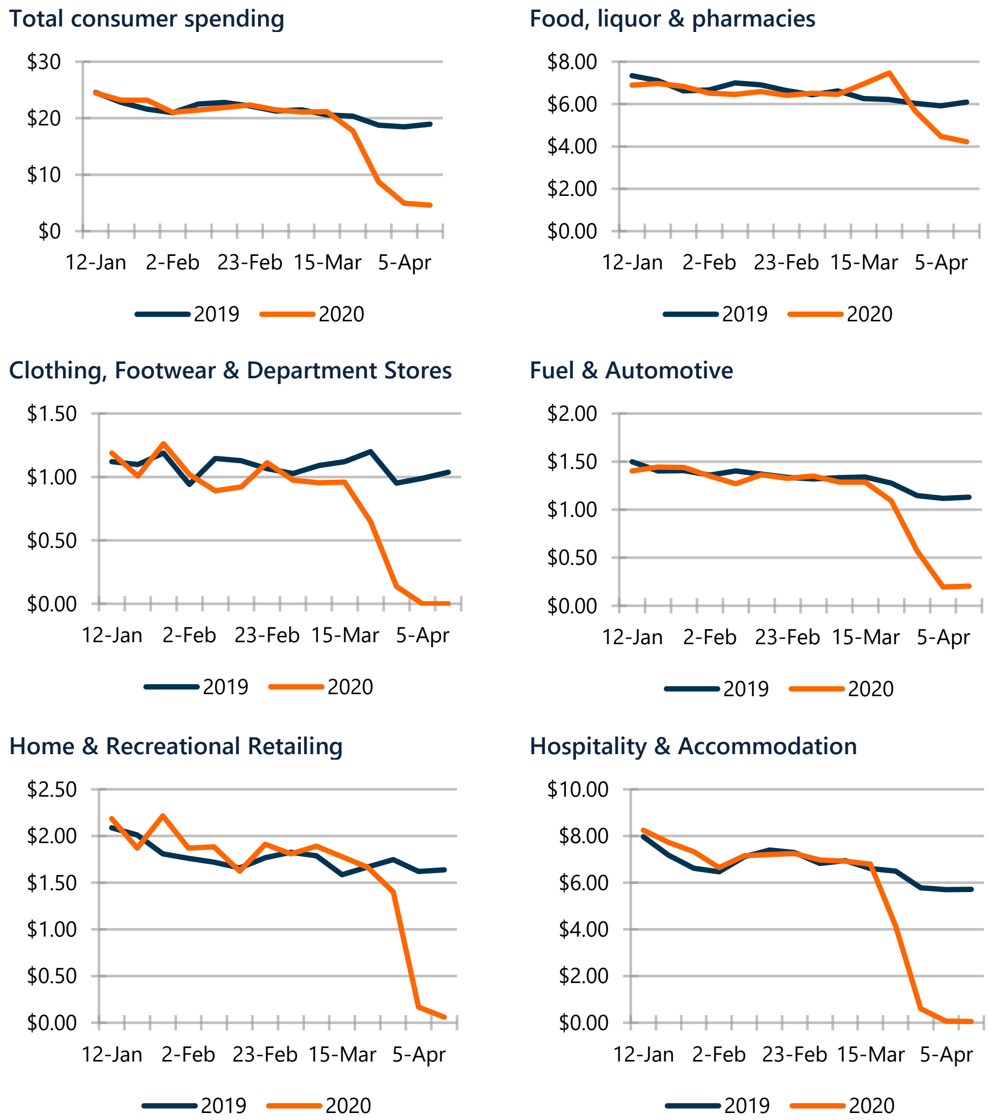
Like the rest of New Zealand, much of Queenstown-Lakes' economy has been closed by the Level 4 lockdown.

Consumer spending has fallen off a cliff

Spending slowly decreased ahead of the lockdown announcement, as visitors gradually gained an appreciation of the severity of the pandemic, and left the district. This offset any increase in spending by locals in days following the Level 4 lockdown announcement. Locals appear to have increased their spending in the food, liquor and pharmacy retail segment ahead of the lockdown. Nationally, spending in home and recreation stores increased ahead of lockdown as people rushed to source materials for home DIY and recreation activities, however there was no perceptible increase in this spending in Queenstown-Lakes.

Once the lockdown was in place, retail spending dropped sharply. Spending on hospitality and accommodation dropped to zero. Spending on food, liquor and groceries is lower during lockdown than prior, reflecting the contribution that visitors make to demand in these stores.

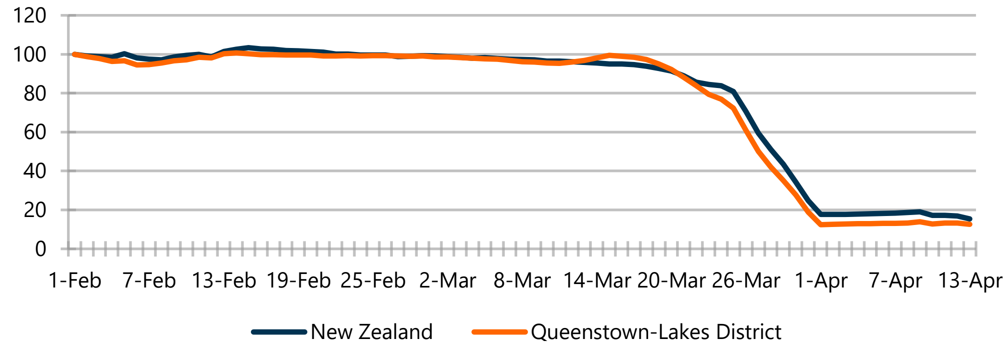
Chart 16. Queenstown-Lakes District consumer spending (millions)



Traffic flows have dwindled

According to data received from NZTA, traffic flows in Queenstown-Lakes peaked ahead of the lockdown and locals prepared themselves and visitors made their way to the airport. Following the Level 4 lockdown, traffic flows fell further in the district than New Zealand overall.

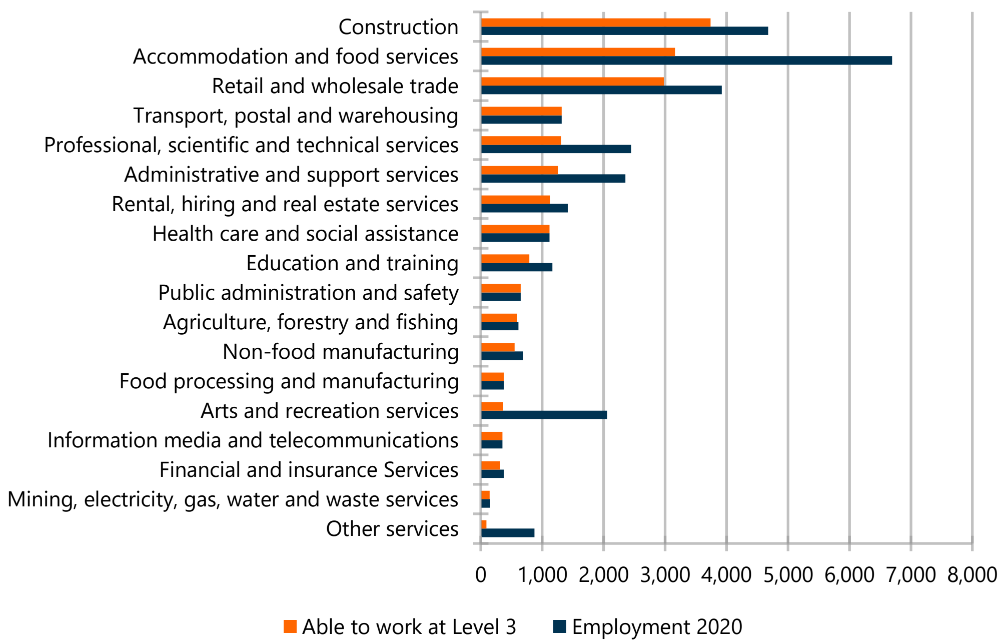
Chart 17. Traffic flow, indexed, 2020



64% of the workforce is able to work in Level 3

We estimate that during the Level 4 of the lockdown, approximately 38% of the total Queenstown-Lakes workforce can operate, either by working from home, or being employed in essential services. In the national economy 53% could work. At Level 3, the rate will rise to 64% compared with 74% in the national economy. However, there remains a question as to whether there will be work for these workers. For example, accommodation and food services is the largest industry in the district, and 47% of the workforce are theoretically able to return to work under Level 3. However, without tourists, demand for their services is likely to be very limited.

Chart 18. Workforce able to work under Level 3 restrictions



Some thoughts on recovery

Housing affordability and lifestyle benefits can be assets

Over the next several years, recessionary condition might give rise to increased levels of domestic migration. Queenstown-Lakes offers a unique combination of natural beauty and outdoor recreation opportunities, which may provide a competitive edge for attracting individuals and businesses which can operate remotely. This trend is likely to be reinforced by an increased capacity for working remotely, as the pandemic has forced many organisations to improve their systems and practices in this area.

Skills development and retention will be key

Increased unemployment will lead to increased interest in tertiary and vocational education. Constrained economic conditions will present fewer opportunities for school leavers and recent graduates to enter the workforce, while recently unemployed workers will explore options for retraining and up-skilling. Under these conditions, the government's Reform of Vocational Education (RoVE) process will assume even greater importance than was the case before the recession.

While much of the detail around the RoVE process is yet to be finalised, local government support for the process will be critical in promoting economic recovery and enhancing future resilience in the local workforce.

Councils and key regional stakeholders will need to play a leading role in implementing the RoVE outcomes. In particular, they will need to be centrally involved in the establishment and operation of structures such as the Regional Skills Leadership Groups (RSLGs), that will be a critical outcome of the RoVE process.

Infrastructure development is an opportunity

Government has prioritised the identification of 'shovel ready' infrastructure projects, that can assist in economic recovery across the country. These projects are likely to be funded through a range of support mechanisms, including Crown Infrastructure Partners, New Zealand Upgrade Programme and possible even a realignment of the Provincial Growth Fund.

In addition to an immediate focus on these 'shovel ready' projects, we believe that regions have a window of opportunity to develop projects with somewhat longer implementation timeframes. If sufficiently ambitious, such projects can provide a step change in the economic development trajectory of regions. Projects that fall into this category might include enhanced water management, localized renewable energy generation and distribution, and transportation infrastructure such as inland ports or customs-controlled areas.

Queenstown-Lakes is the jewel in the crown of New Zealand's tourism offering, so while the extent of recovery in tourism over the long term seems uncertain, large scale tourism will return eventually, and now is an ideal time to provide the infrastructure for that return.

Local government will play a critical role in any recovery

The Queenstown-Lakes District Council, along with other key organizations in the region, will play a critical role in supporting local communities over the upcoming months and years. Some of the measures that the Council and its partners might consider include:

- Maintaining levels of operational expenditure and where possible accelerating already funded capital projects
- Implementing preferential procurement policies to support local businesses rather than those located outside the District (or even outside New Zealand)
- Increased investment in community development activities, particularly in vulnerable and highly impacted communities
- Highly localised destination marketing activities, aimed firstly within the District's communities, and only subsequently being extended to neighbouring communities and further afield in New Zealand
- The extension of business support services, particularly in partnership with local chambers of commerce, industry bodies and organisations such as the Regional Business Partners Network or Business Mentors New Zealand
- Maintaining a balance between rates increases required to fund ongoing and future activities, and increasing financial stress in the community
- Leveraging off the existing local public asset base – prudent borrowing against assets or depletion of financial reserves in the short to medium term
- Support for local vocational and tertiary education providers, to promote reskilling within local communities
- Support for and participation in bodies such as the Regional Skills Leadership Groups
- Developing infrastructure projects beyond the most obvious "shovel-ready" project that might already be under consideration through various central government support measures
- The development of comprehensive local wellbeing-based economic development strategies, in line with government's Living Standards Framework and other international best practice in the field of wellbeing economics

These and other activities, while unable to avert the inevitable unemployment increases and economic distress, can somewhat mitigate the worst impacts of the recession, increase the resilience of the Queenstown-Lakes community, and support economic recovery in the longer term.

Appendix I. Broad approach to modelling the impact of COVID-19 on the Queenstown-Lakes economy

Infometrics has drawn on a range of econometric and statistical model to measure the potential impact of COVID-19 on regional economies.

Forecasting the macroeconomy

Infometrics maintains a macroeconomic forecasting framework that underpins our five-year forecasts of activity across the national economy. Our framework accounts for the relationships between different sectors of the economy and their responsiveness to one another. These include the labour market, households, businesses, government, the international trade sector, and financial markets.

In times of economic upheaval, we refine the output from the framework based on expert input from our forecasting team, their knowledge of rapidly changing trends in the economy, and the insights we gain from our interactions with central government, Councils, Economic Development Agencies and private sector clients.

Overseeing the forecasting process and framework is Gareth Kiernan, who has been forecasting the New Zealand economy for more than 20 years. The framework provides quarterly forecasts of GDP, employment, unemployment, and a range of other macroeconomic indicators up to 2025.

Measuring impacts on individual industries

The pandemic will affect industries differently. To measure this, we have used Infometrics' general equilibrium (GE) model, which is designed to measure the impact of economic shocks on individual industries. We introduce shocks to the model, including a sharp decline in foreign tourism, declines in international education and non-food commodity exports, and a fall in productivity across affected industries. We also temper these shocks through the introduction of support measures such as the wage subsidy and an increase in benefit payments.

The GE model estimates the combined impact of these factors on future economic output and employment across 54 industries. In this sense, the GE model breaks down the national macroeconomic forecasts of GDP and employment to industry level.

Infometrics' GE model is maintained by one of New Zealand's foremost econometricians, Dr Adolf Stroombergen.

Measure the impact on regions and districts

Regions will also be impacted differently by COVID-19. Those with a large tourism industry, for example, will be hardest hit. To measure regional impacts, we draw on our Regional Forecasting Model (RFM), an econometric model that breaks down national industry forecasts to territorial authority level.

The RFM draws on historic trends, patterns and relationships, and projects these into the future. It creates multiple forecast models for every territorial authority and industry combination and using machine learning techniques, selects and applies the model which is historically determined to have best predictive ability. It then produces forecasts of GDP and employment across 54 industries for each territorial authority up to a predetermined point in the future, e.g. 2025 or 2030.