Visitor Demand Mapping Queenstown-Lakes 2020-24

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1. Executive **Summary**

The rapid global spread of the COVID-19 pandemic at the beginning of 2020 resulted in international border closure in New Zealand. This exceptional circumstance has resulted in a massive and severe impact on the visitor economy for New Zealand, and our district, with visitor numbers falling to zero.

The objective of this paper is to map multiple scenarios on how visitor demand may re-start, set and scale for Queenstown Lakes District over the next four years, as a resource for our member businesses. It aims to identify timelines for best and worst case scenarios regarding the return of demand for tourism products within the Queenstown Lakes District.

It is important to recognise that this is a 'live' document. DQ will update the information in this model in real time, as external factors change, and publish the updated components for members accordingly.

The analysis indicates approximately 25% of the usual demand will come back to Queenstown-Lakes district over our ski season in an optimistic scenario, increasing to 30% and 35% of the usual demand over spring and summer respectively. The conservative scenario anticipates demand to be at 10% of normal levels over the ski season, increasing to approximately 15% until summer. The factors influencing and informing the scenarios are covered in more detail in the scenarios section of the paper.

The final scenario graph depicting the outlook for the total demand for Queenstown-Lakes is broken down into separate data sets and graphs for both Queenstown and Wanaka. Within that, the data sets for both places, are broken down into the three main source markets; domestic, Australia and long haul international markets. The international markets are further broken down to the top seven long haul international markets for New Zealand.

This provides a granular view to track developments and factors that influence arrivals from each of these specific source markets. This will enable adjustments to be made at a granular level, tracking the overall effect on the final demand picture. These graphs showing the breakdowns are included in the exhibit section of this paper. Further information is available for members by contacting DQ.

This broad view of how markets will return, and how demand will ramp up, provides DQ with a framework to plot our strategies and activities into a logical plan to re-build demand and to optimise return on our investment in each market. Eventually international markets will return to pre Covid-19 levels (from anywhere between 3 to 5 years)This model supports DQ to be able to correctly time the strategic approach, ideally fast tracking growth and attaining a larger market share than before.

DQ will use this framework to inform our business planning for FY20-21 and beyond. The document will guide our planning and provides a framework that can evolved to ensure our decision making is timely and consistent and will produce optimum results. The framework will also provide direction for the organisation's timing and type of activity.

2. Overview

In March 2020, Covid–19 was the cause of most deaths per week globally within all pulmonary diseases (exhibit 1). The rapid global spread of the COVID–19 pandemic across countries at the beginning of 2020 resulted in exceptional decisions by governments across the world.

These decisions include the unprecedented closure of organised outbound travel from China in the last week of January, international border closure and repatriation and the eventual introduction of the lockdown four-week lockdown and severe border control in New Zealand in the last week of March 2020.

These exceptional decisions have resulted in a massive and severe impact on the visitor economy for New Zealand and our district. There has been a dramatic fall in visitor numbers for the months of February, March and April 2020. Air seat capacity across the world and into New Zealand has also fallen significantly. As New Zealand and the world navigates through the decisions pertaining to protecting lives and livelihoods, this drop in demand is expected to remain for a very long time.

The objective of this paper is to map the various scenarios on how we expect visitor demand to start, set and scale for Queenstown Lakes District over the next four years. There is broad consensus for visitor demand to start with community and regional movement, followed by national and then trans-Tasman travel. It is likely a select group of international markets that have managed to keep the pandemic contained, will receive more lenient border control measures further into the future. This select set will drive the next wave of demand.

We expect this new regime of targeted border control measures to continue until a vaccine arrives or until there is availability of ground breaking diagnostic testing. It might take several years before New Zealand borders are open for all countries at a level seen before March 2020. This paper will aim to identify timelines for best and worst case scenarios on how we see demand coming back for tourism products within the Queenstown Lakes District.

3. Methodology

This report illustrates three scenarios – optimistic (best), conservative (worst) and mid (average), that could occur for the restart and scaling of tourism visitor numbers and spend in the Queenstown Lakes District region.

Due to the rapidly evolving and unpredictable changes faced globally, the methodology that has been used to create these scenarios is a combination of research or data based assumptions and historic data analysis.

To arrive at the scenarios we have reviewed past trends using historic data over the last twenty years. The measures studied are at RTO, district and national level data including Commercial Accommodation Monitor (CAM), Monthly Regional Tourism Estimates (MRTEs), Qrious (phone data), International Visitor Arrivals (IVA) and MBIE Tourism forecasts pre Covd-19 (2019-25).

For source markets, we have analyzed forecasts for GDP growth in their respective economies, expected growth in consumer confidence, forecasts for outbound market growth and expected increase in air seat capacity from these markets into New Zealand and Queenstown airport. The relationship between the national stock market index and holiday arrivals into New Zealand from those source markets have also been included in this review (exhibit 2).

The fundamental methodology process used to create these forecasts were:

- Gather historic data relating to visitor arrivals and spend in the Queenstown Lakes District region (MRTE, CAM, IVA, Qrious) and project what the future would have looked like in a pre-COVID-19 environment, based on MBIE's 2019-25 forecasts.
- Draw research based assumptions around when, "horizons" would be able to access Queenstown Lakes District region in best, worst and mid-case scenarios. Horizons refer to a point of time in the future when market or set of markets are able to access Queenstown Lakes District region freely again. The timelines are derived from expected changes on New Zealand government's alert levels and expected phased opening of international borders.
- Analysis on management of the Covid-19 pandemic within the top ten international markets for New Zealand. And a deep dive covering historic growth trends and forecasts on GDP growth, stock market movements, outbound market growth for the top three international markets Australia, China and United States to build a scenario on how fast their arrivals into New Zealand would ramp up.
- Combine the three elements to create the three demand scenarios.

This is a cognitive model on how we expect demand to return for tourism products in the Queenstown Lakes district. We acknowledge the fundamental mantra of building models, which is that all models are wrong. However, most of our models are mostly good, most of the time. The only effective way to analyze this model is to test it. We welcome your feedback on parameters that are not covered or need review within this model.



Global Economy

The cover story of the 30 April 2020 edition of The Economist looks at what to expect from life after lockdowns: what they are calling a "90% economy"¹ (exhibit 3). While people get out of homes and back to work, and production and retail get busier, large chunks of everyday activity is missing In China Metro rides and domestic flights are down by a third and spending on restaurants has fallen by 40% (exhibit 4).

People are weighed down by financial hardships, businesses are short of money, bankruptcies are rising and unemployment is at record highs. There is uncertainty and an underlying fear of a second wave, and life will be hard until a vaccine or treatment is found. For the smaller "90% economy", strangeness will be more than a matter of size. It is too early to try and understand how long it will take for consumer confidence, annual leave and disposable income to come back, all critical drivers for leisure travel.

Unlike the 2008 Global Financial Crisis (GFC), the Covid-19 shock to the financial system is purely exogenous meaning it is completely external to the financial systems². Like the sharp bell curve we see in escalations and de-escalation of Covid-19 cases in each country, there is general belief that financial health and growth will have a similar inverse sharp curve of decline followed by growth.

The question is how deep and how long the economic shock the COVID-19 pandemic will look like (exhibit 5). International Monetary Fund (IMF) update on World Economic Outlook in mid-April indicates Global GDP growth of -3% in 2020 and +5.8% in 2021, confident of a V shaped recovery³ (exhibit 6). Unlike the great depression or the global financial crisis, the current downturn wasn't caused by something fundamentally wrong with the financial system or the overall economy, which leaves hope for a quick recovery.

IMF expects that the pandemic will fade in the second half of 2020, containment effects gradually unwind and effective policy measure taken to limit the economic harm and the pent up demand will result in a V-shaped recovery for the world economy (exhibit 7). While GDP growth in United States and China are expected to fall to -5.9% and +1.2% respectively in 2020, it will bounce back to +4.7% and +9.2% respectively in 2021⁴ (exhibit 8 & 9).

As economic growth drives consumer confidence, propels outbound markets and growth in aviation links, which boosts arrivals in New Zealand and Queenstown lakes district; a strong recovery in GDP for key source markets like Australia, China and United States in 2021 should deliver healthy growth in visitor arrivals into New Zealand and Queenstown lakes district in 2022.

New Zealand Economy

Last year New Zealand's economy crossed a historic milestone when GDP reached \$300 billion⁵. However, the Government's aggressive approach enforcing a lockdown to save lives after Covid-19 reached New Zealand has pushed the country into a deep recession. The Government's support measures add up to \$22 billion or 7% of annual GDP. Unemployment is expected to rise to 9.5% in June, the highest level in 27 years. House prices are expected to drop by 7% by end of the year. The scale of the policy response to the crisis will result in a debt to GDP ratio of 50%, the highest level since 1993 that will put more pressure on future generations⁶.

The Reserve Bank forecasts an 19% reduction in total GDP at alert level three, an 8.8% reduction at alert level two and a 3.8% reduction under alert level one. At level two and one, the majority of this reduction is due to the limited capacity of the tourism industry⁷.

Under each alert level there are strict rules relating to movement, social distancing and gathering numbers, which have a direct impact the capacity tourism can operate at. Domestic Tourism activity which contributes 6% of total GDP will be reduced under levels one and two and this will affect spend on transport, food, accommodation, retail sales and other tourism products.

New Zealand's tourism industry directly and indirectly employs about 400,000 people or just over 14% of the workforce. According to Tourism New Zealand, the Tourism sector directly employed 8.4 per cent of New Zealand's entire workforce as of March 2019 and, with its associated industries, was responsible for about 10% of GDP⁸. The total tourism spending in New Zealand was \$41 billion⁹. For the year-ending March 2019, international tourism contributed 3.8% to the total New Zealand GDP¹⁰.

To respond to the dramatic drop in demand, some Tourism businesses have gone into hibernation, some into deep freeze and some will not survive winter. The downturn will hit tourism businesses disproportionately based on their exposure to international markets and their ability to stay relevant to the New Zealand domestic visitors.

In the new environment, industries involved with healthcare and producing necessities e.g. food retailers, will benefit most as New Zealand climbs back from recession. Agriculture and the rural economy will become more important. The fall in the New Zealand dollar will also help boost food exports. Tourism, hospitality, housing and construction industries will be the hardest hit¹¹.

Most economists are forecasting a more rapid economic recovery than after the GFC, expecting to get to prerecession levels in two years against three years post GFC. Westpac predicts GDP in 2020 to decline by -6.3% and then to see growth in 2021 and 2022 by +4.7% and +5.2% respectively. The expectation is that the longterm fiscal stimulus from the Government will fire up the economy and that Interest rates will remain low for the foreseeable future¹².

Queenstown-Lakes Economy

Queenstown-Lakes district economy was \$3.06 billion in 2019. The district had 41,700 residents and 30,008 jobs across 8,706 business units. The economic profile page on the QLDC website attributes 55.6% of the district economy to tourism and an additional 17.5% to accommodation and food services in 2019. In 2000, the contribution of tourism in Queenstown's total GDP was 24%¹³.

Tourism GDP growth for Queenstown is linked very strongly to the growth for New Zealand. For 2019, the Tourism GDP growth for Queenstown was +10.3% compared to +6.6% for New Zealand. The last time tourism GDP was in decline was in 2009 post the GFC when Queenstown Tourism GDP fell by -1.3% and New Zealand by -4.2%¹⁴.

It is likely the Queenstown-Lakes district economy could shrink by 40% due to the lockdown and unemployment would reach between 25% and 30% in the short term¹⁵. The mid-term impact on jobs and the economy will be clear only once further information on Government support packages for tourism beyond the wage subsidy that extends until June 2020 is available.

Not surprisingly transactions and spend are significantly down in the Queenstown Lakes District (exhibit 10). For the week ending March 3rd, 2020, the value of spending was down -64.4% compared to the same week last year with the majority of this being driven by a -92.9% drop in international spending¹⁶.

Since international markets are offline, and with access to only domestic markets, the market size will shrink to about 30% for at least the next six months, and we need to wait and see how much of this market can be converted into actual visitors to Queenstown-Lakes. The dramatic drop in demand will re-shape the supply of accommodation, activities, retail and hospitality in town. What supply is available at the end of June is crucial to how the district can maintain its core proposition and on how we can retain and grow market share within other domestic destinations.

The announcement from the ski fields about opening multiple ski areas or parts of them to cater to local, regional and domestic markets does give most businesses in town a core proposition to go to market with. This alone will stimulate a wave of new demand for July, August, September quarter resulting in a much needed cash flow boost to our businesses and movement in the visitor economy.

Global Aviation

The airline industry is facing a crisis the likes of which it has never seen in its 100 years of existence (exhibit 12). The global commercial aviation industry has said it will lose US\$314 billion in ticket sales in 2020. Social-distancing norms when air travel resumes could further curtail revenue, overall annual passenger revenue loss is about 55% compared to pre Covid-19 forecasts. Global flight traffic was down 80% in early April 2020, when all flights were grounded except for repatriation and cargo¹⁷.

Aviation links have snapped globally. When international borders open, the resumption of flights across the world will be driven initially by large population base, visiting-friends-and-relatives, business and student traffic, followed by leisure. The demand for international leisure travel will lag behind other travel segments, which put New Zealand aviation links on a relatively lower priority. The improvement in aviation links may not be linear as different countries deal with travel restrictions changing frequently based on how COVID-19 cases re-emerge. Some airlines will close down and some will consolidate to find synergies. Most carriers will have lifelines from their governments, for instance Germany is increasing their stake in Lufthansa by 25.1% as part of the proposed 10 billion Euro bailout package. In the last week of April, Boeing warned that global air travel would not match the level of 2019 for two or three years. The poor forward outlook for aviation was highlighted when Warren Buffet's Berkshire Hathaway announced sale of all of their U. S. airline stocks for United, American, Delta and Southwest in their AGM in the first week of May¹⁸.

With social distancing norms to follow, potentially until a vaccine is developed, airlines will have lower load factors, which means higher airfares. There might be new travel protocols to follow around health checks and testing at the departure airport, which will further increase costs for airlines¹⁹. On a positive note, crude oil prices are the lowest since 1990s. With fuel prices being crucial part for airline operating costs, low crude oil prices will help with profitability.

New Zealand Aviation

Auckland Airport has reported that before the Covid-19 pandemic, 29 airlines were operating at the airport but that had dropped to 11 (mostly cargo and repatriation flights), with the number of daily flights falling from 500 to 80 between March and April 2020²⁰.

Air New Zealand intend to operate predominantly as a domestic carrier for the near future. Their domestic network might see change as the current network alignment is to feed Auckland as the long haul international hub. The network recalibrated purely based on where domestic demand resides and where popular domestic destinations are might look different.

It is confirmed that Queenstown will receive domestic flights from Auckland and Christchurch in alert level two, however they would only be running at around 20% their pre-COVID capacity and they would not be able to offer their cheapest lead in fares²¹.

When long haul markets come online, we might also see a correction to the phenomenal growth in demand and flight capacity into Auckland Airport over the last several years post the Christchurch earthquakes.

It is difficult for the airports and airlines to issue forward outlooks due to the uncertainty around the decisionmaking framework the government will use to manage borders with different countries.

Australia Aviation

There is popular support on both sides of the Tasman across private and public sector, for a trans-Tasman bubble. At the next stage, as the skies and borders open in Australia and New Zealand with the rest of the world, global aviation links and seat capacity into Australia will come back much faster than New Zealand. This is due to several factors where Australia is generally better placed with resources than New Zealand, with government intervention, airport incentives and financial support and a since Australia has a much bigger market.

Global aviation links into Australia are crucial for New Zealand. 54% of all international travel to and from New Zealand had an Australian connection last year, and travel involving friends and family accounted for half of trans-Tasman trips²². In the medium term Australia as a transit point will become more important for New Zealand to connect to the long haul world.

Queenstown Aviation

Air New Zealand will be the primary driver for domestic capacity increase into Queenstown as it is a well-priced and well-understood domestic product. Qantas might drive the capacity increase across the Tasman into Queenstown when the borders open. Queenstown's trans-Tasman link is extremely important, as the long-haul capacity into Australia will grow faster than into New Zealand. This will be not only due to the larger Australian market size, but also because Australian airports, airlines, government and NTO have deeper pockets and more resources to influence international airline route decisions.

Epidemiology

The biomedical community and science is currently working overtime at lightning speed to produce a vaccine that will allow the world to get back to its full capacity. While this paper was written, there were 95 treatments and 52 vaccines in development for Covid-19 in over 200 clinical trials in the United States, China and European Union²³. Bill Gates was picking the top seven vaccine candidates and building manufacturing capacity for all them. Even though the foundation will end up selecting, at most, two of them, they are going to fund factories for all seven to save time²⁴.

The White House put together a task force called 'Operation Warp Speed' to try and make 300 million doses ready by end of this year. Johnson & Johnson, which has been working on its vaccine for months, has said it plans to produce 1 billion doses by the end of 2021. In mid-April, the first human trials in Europe of a coronavirus vaccine begun in Oxford²⁵. Emirates became the first Airline in the world to use blood tests to screen passengers before they board their flight. During the tests, blood is drawn from a finger prick and the results are processed in just 10 minutes²⁶.

The allocation of resources to science to beat Covid-19 is phenomenal and extremely encouraging. In addition to government allocations, at the end of April, Forbes counted 77 billionaires who had donated to different causes to do with coronavirus relief. The biggest donation came from Twitter and Square CEO Jack Dorsey, a \$1 billion US dollars, one quarter of his fortune²⁷ (exhibit 13).

New Realities

There is a remote possibility that New Zealand might move back and forth through the Alert levels if new cases and clusters break out and the pandemic does not seem to be under control. Apart from the discussions about the possibility of a trans-Tasman bubble, the New Zealand Government seems to have a long-term timeframe on re-opening borders for long haul markets. It can be assumed that international borders will not be open until we are completely out of the alert level system and a vaccine is developed or until sharper testing methods are developed at airports. Once long haul international market borders open, changes in Immigration New Zealand policies will also affect the ease of applying for and obtaining a New Zealand visa.

There might be a Nationalist minority segment that pushes for more protected borders, regressive policies and show dislike for visitors of certain nationalities. While the recession will highlight the major role tourism plays within New Zealand's economy, there will still be social licence issues that need to be addressed. The job losses within tourism businesses will also result in loss of crucial IP, knowhow and key relationships in domestic and international markets. Since most markets will not be in growth mode, the need for New Zealand and tourism businesses to maintain and grow market share will become even harder.

5. Markets

Local and Regional

This market is the local Queenstown-Lakes community that contribute to the local tourism economy and the population in the wider drive zone extending from Central Otago to the wider Otago/ Southland Regions. Spend from this market is minimal during the period of lockdown in alert level four and three. There was a slight increase in movement at level three as takeaways and some retail was allowed within click and collect rules. At alert level two, this market within the drive zone is expected to mobilise first to drive demand into Queenstown-Lakes, before the wider domestic market is stimulated.

Domestic

The domestic market in New Zealand is about 29.5 million overnight trips adding up to 83.5 million visitor nights, with an average of 2.84 nights per overnight trip and a total spend of \$23.7 billion, including day trips²⁸. For yearending June 2019, 30% of the total visitor mix to Queenstown was domestic. The New Zealand outbound market, is estimated to be 3.2 million trips with 58.8 million visitor nights with a total spend of \$6.5 billion. 78% of this was leisure visitors, with Australia accounting for 60% of all departures. With international destinations not an option for Kiwis for the foreseeable future, there is an opportunity for Queenstown to increase market share within the domestic market.

While it will be relatively easy to get patriotic Kiwis to explore their own backyard, it will be more difficult to convince them to participate in the tourism economy by increasing their domestic holiday spend. To enable consumption of more tourism products while on holiday in the Queenstown region, our products will need to re-align the experience they offer to suit the pockets of the domestic market. Shorter trips and value add offerings that could potentially increase perceived value for the domestic consumer but keeps profitability at the same level would be the ideal outcome.

New Zealand is one of the few countries that have managed the pandemic very well (exhibit 11). In the event of a relapse of Covid-19 cases sending us back and forth between the Alert levels again, it will have a longterm impact in people's ability to move within the country. New Zealand's deep economic recession will dilute disposable income and consumer confidence, which might shrink the domestic holiday market. The lower seat capacity from the North Island into Queenstown over winter and spring 2020 might also increase domestic airfares.

At the same time, closed international borders might fuel the New Zealand domestic holiday market. Availability of healthy supply will deliver a quality Queenstown experience for Kiwis offering a value never seen before in the domestic market. An Opinion Compare research in late April, named Queenstown the destination most New Zealanders would like to visit once travel restrictions due to Covid-19 are lifted. Queenstown got 47% of the votes, followed by Milford Sound at 41%²⁹.

Successfully converting demand from the domestic market for winter 2020 is absolutely crucial for survival of most Queenstown-lakes district businesses. About 55% to 65% of Queenstown-lakes district ski visitors are domestic³⁰. This gives us the opportunity to get core visitation into town to help our businesses with much needed cash flow and a welcome shot in the arm to survive winter.

Australia

The Australian economy has seen close to thirty years of continuous growth until 2020. Australia was one of the few western economies that continued to grow through the GFC due to its strong ties to China. The Australian dollar is considered to be a barometer of how things are going in China. The slowdown in China's economy in 2018 and 2019 also slowed down the Australian economy as well. The bushfires and Covid-19 impact in late 2019 and early 2020 will push Australia into a recession for the first time in almost thirty years.

Australia's outbound market was about 11.9 million in 2019. In line with the slowdown in GDP the outbound market growth has slowed down from 5.8% and 5.3% in 2016 and 2017 to 4.4% and 1.9% in 2018 and 2019. New Zealand's share of the Australian outbound market is consistent at about 13% each year. Australian arrivals into Queenstown airport however have seen strong growth in the last three years, 9.8%, 7.9% and 13% for 2017, 2018 and 2019 respectively. Australia is the largest international market for New Zealand and for Queenstown. Australian arrivals into Queenstown peak in winter with the ski proposition. The arrivals at this time of the year tend to be relatively long staying and high spending.

Australia has been successful in keeping the pandemic under control within its shores (exhibit 11). The approach has been different from New Zealand, however still very successful. This has led to discussions at the highest levels of Government about the possibility of a trans-Tasman bubble. Getting the borders open to Australia will have a significant impact on the New Zealand economy and for the tourism sector.

China

China is the second largest economy in the world, with +6.1% GDP growth in 2019. The lockdown in the first quarter of 2020 resulted in the economy shrinking by -10.9% for the quarter. The Economist forecasts the second quarter to grow at +9.2%. Despite the severe impact of Covid-19, IMF forecasts GDP growth of +1.2% in 2020 and +9.2% in 2021, indicating a V-shaped recovery (exhibit 7).

Considered the 'factory of the world', China is fast restoring supply chains across the globe. The initial economic and other movement indicators are extremely positive for the first post Covid-19 economy in the world. Traffic from major ports has already crossed the levels in mid-Jan before the lockdown. Hotel occupancy has climbed back from 15% in February to 50% in April; and flight passenger numbers are up from 8% in February to 25% in April (exhibit 4). Demand for domestic travel is bouncing back.

The outbound market in China had a phenomenal +11% growth between 2018 and 2019. In 2019, there were 166 million outbound travellers from China. Arrivals into New Zealand dropped by -9.2% from 448,189 in 2018 to 407,141 in 2019.

United States

The largest economy in the world had GDP growth of +2.3% in 2019 (exhibit 9). Currently the United States has the highest number of Covid-19 cases in the world, about five times more than Spain, which has the second highest. It seems likely it will take several more weeks for the cases in the United States to peak (exhibit 11). Despite this severe health impact and the dramatic drop in weekly GDP growth (exhibit 8), IMF expects the economy to bounce back from -5.9% decline in 2020 +4.7% growth in 2021 (exhibit 7).

While aviation, travel, retail and hospitality sectors are fighting for survival, the world's most prominent tech companies have been remarkably unaffected by the crisis. For the first three months of 2020, Google, Apple, Facebook, Amazon and Microsoft posted positive revenue growth. Apart from Apple, that was affected by a drop in sales in China during the lockdown, the others have double-digit growth quarter-on-quarter between 2019 and 2020, with Amazon being most impressive with a +26% growth, followed by Facebook at +18% and Microsoft at +15%³¹ (exhibit 14).

The outbound market in United States had +5.5% growth, expanding from 87.7 million in 2017 to 92.5 million in 2018. New Zealand's share is tiny but consistent at 0.38% for 2017 and 2018. This year was set to see an unprecedented growth in air seat capacity between the United States and New Zealand. There were new routes announced from Los Angeles to Christchurch, Dallas to Auckland and New York to Auckland. While Air New Zealand has announced a postponement of the New York route, American Airlines are still committed to operate the new routes to connect Los Angeles directly to the South Island and to connect Dallas to Auckland in October, subject to the borders opening.

The Cruise industry in the United States is reporting strong demand and forward sales for 2021³². In the first week of May, Carnival announced US\$ 28-a-night fares for re-start of Cruises from 1 August departing ports in Texas and Florida³³. Considering the severe impact of the pandemic in the United States, it is likely that New Zealand's border will stay closed for visitors from the United States for a long time. The market is extremely promising, however we may not see visitors arriving in from the United States until mid-2021.

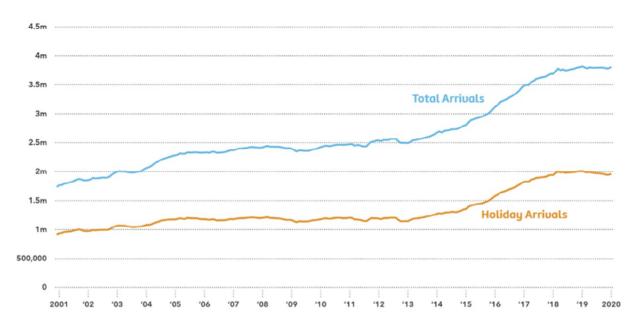
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6. Historic **Data**

The following information aims to provide a frame of reference for understanding the huge growth and importance of the tourism industry in the Queenstown Lakes District region since 2000. Please note that unless specified the following graphs data represent Moving Annual Totals (MAT), which enables better interpretation of the overall trend.

International Visitor Arrivals

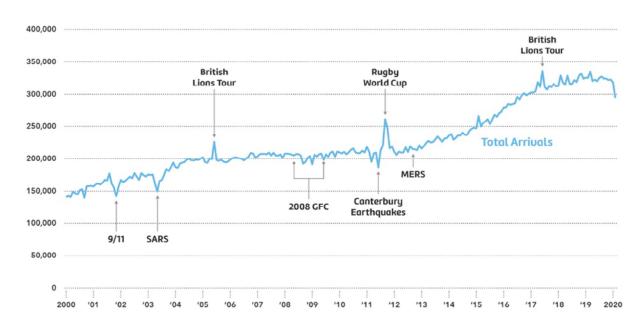
International Visitors Arrivals (IVA) is based on the IVA card that all entrants fill in when entering the country³⁴. These people are considered international visitors because they live abroad and intend to stay fewer than 12 months in New Zealand. This data can be broken down into travel purpose, length of stay and country of origin.



International Visitor Arrivals, Jan 2001 to Feb 2020

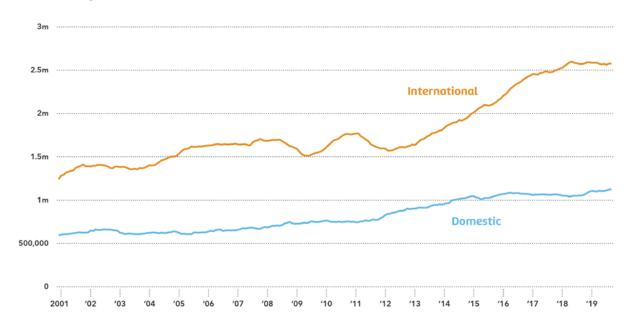
Total Arrivals have grown from 1.7 million in 2000 to 3.8 million in 2019. Holiday/ Vacation specific arrivals have also grown in a similar trend from 916,000 in 2000 to 1.95 million in 2019. Majority of this growth has come from our key visitor markets of China USA and Australia as demonstrated in the exhibit 15 but other emerging markets such as India and other Asian origins also provided growth. The graph below illustrates total international arrivals (seasonally adjusted) and highlights some important spikes in visitor arrivals that aren't seasonally driven.

International Visitor Arrivals, Jan 2001 – Feb 2020 Seasonally Adjusted



Commercial Accommodation Monitor Visitor Nights

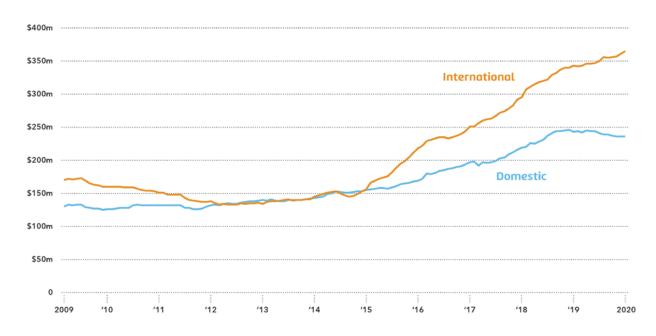
The Commercial Accommodation Monitor (CAM), which was compiled through NZ Statistics requiring all "commercial" short-term accommodation providers (approx 3,000 providers) to report their guest nights, guest origins and occupancy on a monthly basis³⁵. The CAM did not include private short-term accommodation providers (like Airbnb) which should be taken into account when looking at the data from 2015 onwards. As data shows a relative slowing down of visitor nights in commercial accommodation due to the substitution to noncommercial. Hence does not represent the actual number of visitor nights occurring in the district. The CAM data collection ceased in September 2019.



CAM Visitor Nights, Queenstown

Queenstown has seen significant growth in accommodation nights averaging a 3% growth rate for both domestic and international markets. For the international market, visitor nights in 2000 were 1.2 million and have risen to 2.6 million nights in 2018. The domestic market also experienced growth from 600,000 nights in 2000 to 1.1 million nights in 2018.

CAM Visitor Nights, Wanaka



Wanaka has also experienced growth in accommodation nights averaging a 3% growth rate for International and a 2% growth rate for domestic markets. For the international market, visitor nights in 2000 totalled 190,000; which has risen to 600,000 in 2018. The domestic market also experienced growth from 220,000 nights in 2000 to 367,000 nights in 2018.

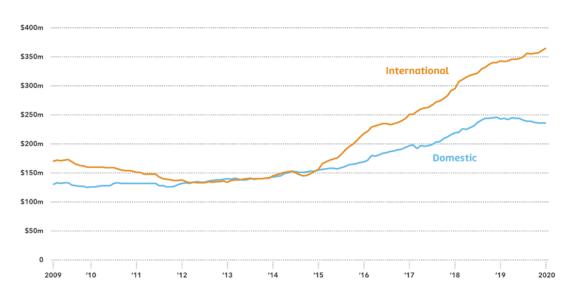
Monthly Regional Tourism Estimates

The Monthly Regional Tourism Estimates (MRTE) provide monthly estimates of tourism spending for domestic and international markets³⁶. These are derived from card spending and calibrated to the Tourism Satellite account (TSA) and the International Visitor Survey (IVS). Electronic card transactions are gathered from Paymark and BNZ by Marketview; representing around 80% of the electronic payment market.

\$1.8b \$1.6b International \$1.4b \$1.2b \$1b \$800m Domestic \$600m \$400m \$200m 0 '11 '12 '13 '14 ʻ15 '16 '17 '18 **'19** 2020 2009 '10

MRTE, Queenstown

Total estimated tourism spend in Queenstown has grown from \$668 million in 2000 to \$2.4 billion in 2019. The estimated international market spend has grown from \$444 million in 2000 to \$1.6 billion in 2019. There was a strong period of growth between 2014-2016, with the average growth rate being 16% year on year. This growth was mostly driven by the Australian and Asia markets. Domestic spend also has increased from \$244 million to \$858 million in 2019, with an average growth rate of 8% per year

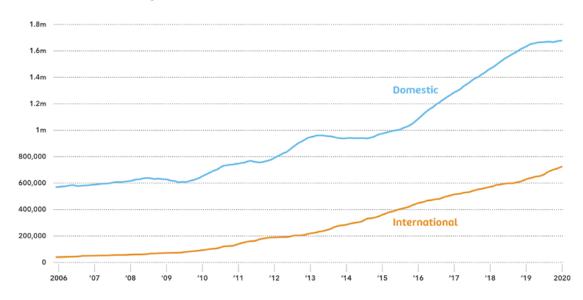


MRTE, Wanaka

Total estimated tourism spend has grown from \$219 million in 2000 to \$597 million in 2019. The estimated international market spend has grown from \$123 million in 2000 to \$361 million in 2019. Domestic spend also has increased from \$96 million to \$236 million in 2019, with an average growth rate of 7% per year.

Queenstown Airport Passenger Movements

Queenstown International Passenger Movements record how many movements are made through the airport of passengers departing or arriving. An arrival and a departure are counted as two separate movements. The data starts from January 2006 and is split into international and domestic origin (the origin of the aircraft not the passenger themselves)³⁷.

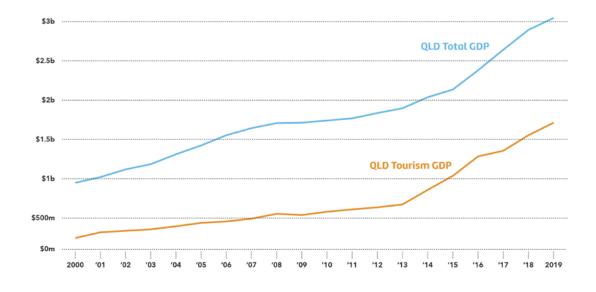


Queenstown Airport Passenger Movements

The Domestic market makes up the majority of movements due to the share number and frequency of domestic planes arriving. Domestic movements were 569,900 in 2005 and increased to 1.6 million in 2019. International has seen growth as Queenstown airport gained more international routes, growing from 39,500 movements in 2005 to 716,900 movements in 2019.

Queenstown-Lakes District Tourism GDP

Tourism is the Queenstown District Lake's economic backbone. In 2019 it contributed \$1.7 billion to the economy which was 55% of the total GDP for the region. The area has seen huge growth in tourism GDP since 2000 when it was \$224 million representing 24% of the total GDP for the region³⁸.



Queenstown-Lakes District Tourism GDP

7. Scenarios

Assumptions

To build the scenarios, we have made several assumptions regarding potential timelines of when the Alert levels will scale down and when borders with international markets will open. These timelines trigger the base level for the demand curve to pick up for Queenstown-Lakes district. The timelines are our best estimate based on the information at hand now.

As we get more information, we will update the model based on the updates, ensuring this remains a 'live' document. The timelines included in the models for markets coming online to Queenstown-lakes district and New Zealand are as follows:

MARKETS	CONSERVATIVE	MID	OPTIMISTIC
HORIZON 1			
Regional Market, New Zealand Domestic Market	OPEN	OPEN	OPEN
HORIZON 2			
Trans-Tasman Australia	JUN 2021	JAN 2021	OCT 2020
HORIZON 3			
Set 1: China, Japan, South Korea	Q3-2021	Q2-2021	Q1-2021
Set 2: Germany, Singapore	Q1-2022	Q3-2021	Q2-2021
Set 3: Canada, US, UK, India, all others	Q1-2022	Q4-2021	Q3-2021

The dates for the community, regional and domestic markets returning is based on the Covid-19 Alert levels New Zealand government is following. The above dates for borders opening for specific international markets are derived from a well-regarded SIR (susceptible-infected-recovered) model developed by the Data-Driven Innovation Lab at the Singapore University of Technology and Design³⁹.

The same methodology has informed the New Zealand government's simulation of the pandemic and the decisions around the alert levels. Based on the bell curve for new cases and the actions taken by the government, the model predicts what date a country will get to 97%, 99% and 100% Covid-19 end dates. Based on the dates of when a country gets to 100% Covid-19 end date, the above border opening dates are estimated after several buffer months.

There have been further high-level assumptions made in relation to the capacity that market will resume traveling and spending at. As explained in the preceding sections there are several macro-economic factors to consider that will significantly influence visitor spend such as the depth and length of economic recession, the supply and price of aviation capacity and the speed that fast diagnosis or a vaccine is delivered.

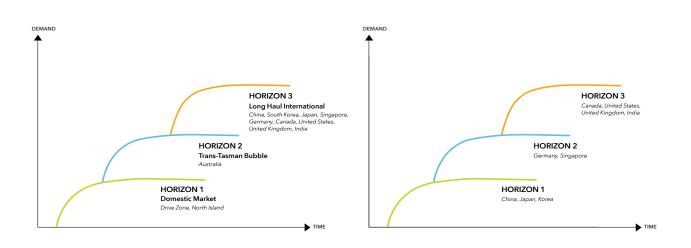
Horizons

With the markets coming online in a phased manner, we envisage demand coming back into Queenstown-Lakes also in phased waves.

Looking ahead from May 2020, the first wave will comprise regional and domestic demand, as and when New Zealand reaches the alert level 2, which we have referred to as Horizon 1.

Following that, based on the preliminary Government discussions between Australia and New Zealand, we are expecting the trans-Tasman bubble will be introduced. This will open up the Australian market for Queenstown-Lakes, which we consider to be our Horizon 2.

Horizon 3 is the next set of international long haul markets that will open up, most likely over a period of several months, based on how safe the government considers specific countries to be.



The picture on the left depicts the horizons as domestic (Horizon 1), Australia (Horizon 2) and Long haul international markets (Horizon 3). The picture on the right further splits the international long haul markets into three horizons, each with a set of countries that may come online at approximately the same time.

The following simulation of demand pick up in the Queenstown-Lakes region has been built based on the above timelines and assumptions. As DQ gets more information, we will be able to replace the assumptions with factual information and update the model, in real time, to reflect the forward outlook for demand.

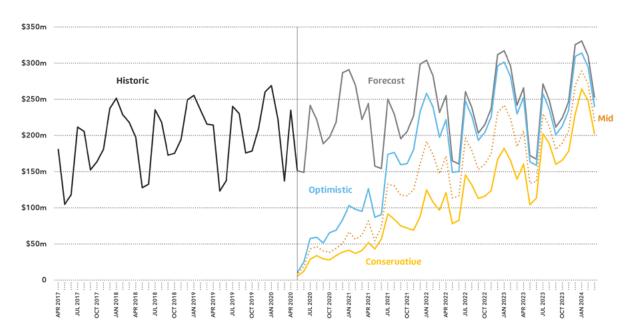
Demand Scenario for Queenstown across all Markets

The following chart illustrates expected total demand for Queenstown from all the markets identified above, i.e. regional, domestic, Australia and long haul international markets. The 'X' axis represents the total monthly spend in New Zealand dollars and the 'Y' axis represents the monthly data points from April 2017 to March 2024.

Demand data points have been broken down to monthly levels to indicate the fluctuation in monthly demand, due to acute visitor seasonality in the region. The timeframe shows 36 months (three years) of historic data and 48 months (four years) of forward outlook.

The top black line represents the monthly spend data, which is built in two parts. The first historic part is the actual spend data from Monthly Regional Tourism Estimates (MRTEs) from April 2017 until March 2020; and second part is the forecast spend projected in a non Covid-19 setting. This forecast is drawn using the historic MRTE data trend as the base and considering the MBIE Tourism visitor arrival forecasts for 2019 to 2024. This is the expected spend Queenstown would have seen with nominal growth, if all the markets were still online in a state with no alert level restrictions or international border closures. The vertical line shows our current point in time. This line separates the historic actual data from the forecast data in a non Covid-19 state.

Queenstown all Markets



The chart then portrays an optimistic view (best-case scenario) of how fast the markets return. The assumptions on dates for this are indicated in the earlier section. The optimistic view also incorporates a confident forward outlook of economic indicators in these specific markets, which will drive interest and visitation to New Zealand, and to Queenstown.

To balance this the conservative view (worst-case scenario) has an extremely cautious assessment of the time it will take for international borders to open. And within that a moderate position on the economic condition of the source markets, and a slower return of visitor demand.

The mid dotted line is an average of the optimistic and conservative view.

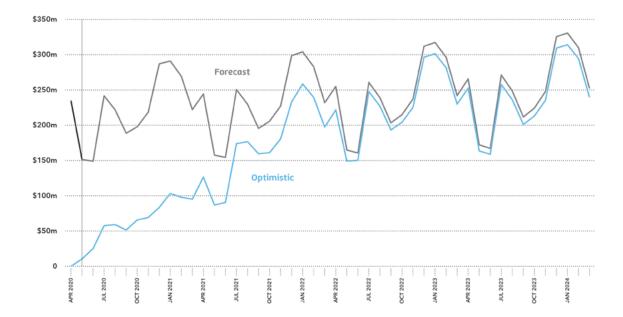
For further break down of the total expected demand scenarios into markets, i.e. domestic, Australia and long haul international markets, please refer to the exhibits section 17 for Queenstown and 18 for Wanaka. For the percentage comparison of usual non Covid-19 demand versus the demand plotted in the predicted scenarios, please refer to the exhibit section (exhibits 17 and 18).

Optimistic Scenario for Queenstown

For this scenario, we have considered that domestic travel within New Zealand will be permitted from June 2020 onwards. Despite there being a recession, the domestic market (particularly from Auckland into Queenstown) is likely to have healthy demand as the choice of the international destinations are not available for leisure travellers.

It is expected that flight connectivity will ramp up to about four or five flights a day between Auckland and Queenstown. Sharper pricing for accommodation and experiences in Queenstown due to increased available capacity, will drive demand. The domestic market coming back online in June will ramp up demand for Queenstown's ski driven winter proposition.

This scenario assumes the border with Australia will open by October 2020. If a trans-Tasman bubble is formed, it would mean Australia is not open to other countries apart from New Zealand and the Pacific nations. This limited choice of international destinations would also drive demand for New Zealand and the district. Aviation links are projected to come back into place progressively, first with direct non-stop flights between Queenstown and Sydney; and then other points coming online over the next two quarters. The Australian market coming online in October will increase demand for the district's summer.



Queenstown – Optimistic Scenario, All markets

For long haul international markets it is anticipated that the first set of borders to open will be with China, Japan and South Korea around the first quarter of 2021. These countries have been successful in flattening their curve and keeping new case levels very low (exhibit 19). The next set of countries is likely to be Germany and Singapore opening up in the second quarter of 2021. Followed by United States, Canada, United Kingdom, India and other countries opening up in the third quarter of 2021. The resumption of the border opening in China will ramp up demand over Chinese New Year in February 2021. The traditional western markets will drive demand for summer 2021.

This scenario expects a V-shaped recovery of the global economy, with GDP growth in 2021 that will drive growth in outbound travel and drive growth to arrivals into New Zealand in the later part of 2021 and into 2022 (exhibit 16).

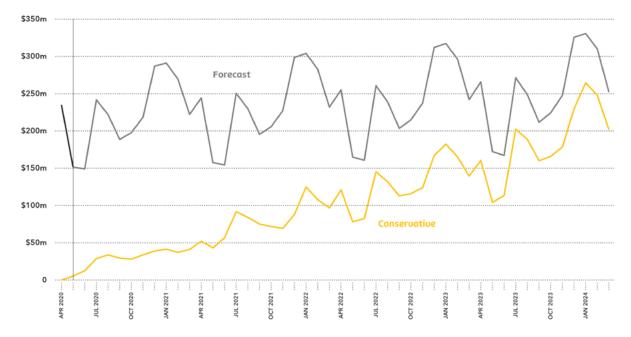
Aviation links to all major long haul cities from Auckland and Christchurch is expected to return gradually. It is also assumed that oil prices and the New Zealand dollar will be reasonably stable.

This scenario expects the pandemic case levels to constantly reduce and stay low until a vaccine is found and that there are no further out breaks in New Zealand or in international markets. Rapid improvements in diagnostics and testing is also factored in to keep demand steady.

Conservative Scenario for Queenstown

In the conservative (worst-case) scenario, we would expect a potential increase in Covid-19 cases in New Zealand over the next few weeks, resulting in an escalation of alert levels and further periods of extended lock down. Within those parameters, we have considered that domestic travel in New Zealand will stabilize only by December 2020.

This scenario expects a deep recession in New Zealand to continue for a long time and considerably soften the demand from the domestic market. Long-term fiscal stimulus from the Government will not fire up the economy. That flight capacity from the north island into Queenstown will be very slow to come back. This scenario also anticipates that even if there is a high volume of visitors into Queenstown, expenditure will still be considerably less than previous years, due to reduced pricing in accommodation and activities.



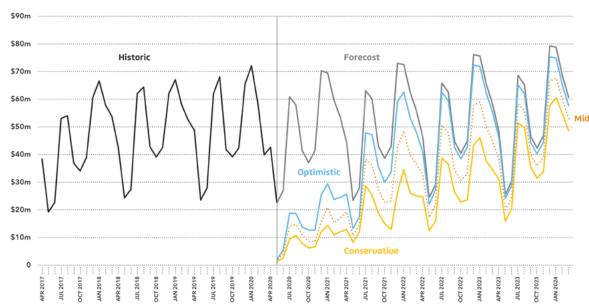
Queenstown - Conservative Scenario, All markets

In this scenario, the border with Australia will open by June 2021. That the Australian economy will remain in slowdown for a longer period, resulting in poor growth for outbound travel. Trans-Tasman flight capacity will also be very slow to return to 2019 levels.

The main assumption in this scenario is that international borders will only open when a vaccine is found, released and available in mass scale. This is expected to take until the second half of 2021, which means that long haul international markets and borders will open in a phased manner between the third quarter of 2021 and the first quarter of 2022.

While the borders open much later, the economic recovery for global markets will be U-shaped resulting in a very long wait for demand to ramp up in Queenstown.

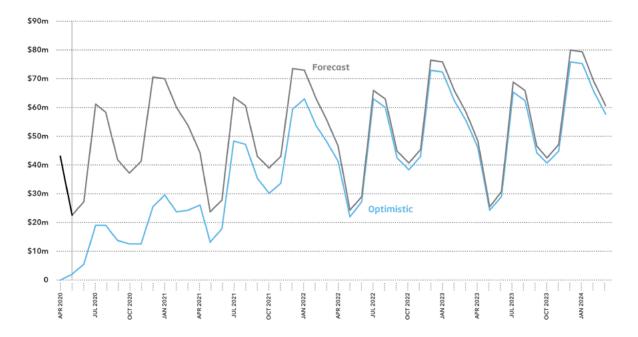
Demand Scenario for Wanaka across All Markets



Wanaka – All markets

The demand scenarios for Wanaka have been developed in consultation with Lake Wanaka Tourism. The top black line represents the monthly spend data for Wanaka region, which has been built in two parts. The first historic part is the actual spend data from Monthly Regional Tourism Estimates (MRTEs) from April 2017 until March 2020

Optimistic Scenario for Wanaka

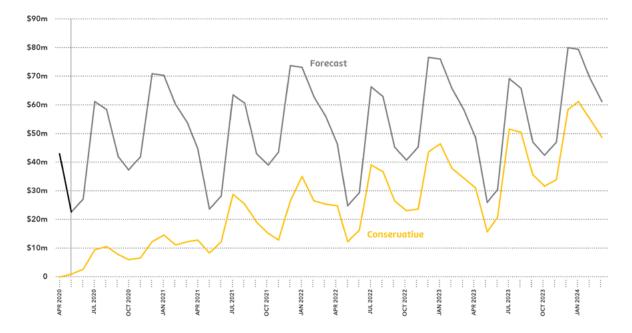


Wanaka – Optimistic Scenario, All markets

There is significant commonality in the external factors that influence visitor arrivals into Queenstown and Wanaka, consequently the demand growth rates are very similar. The only area where the trends might differ slightly from each other is within the domestic market.

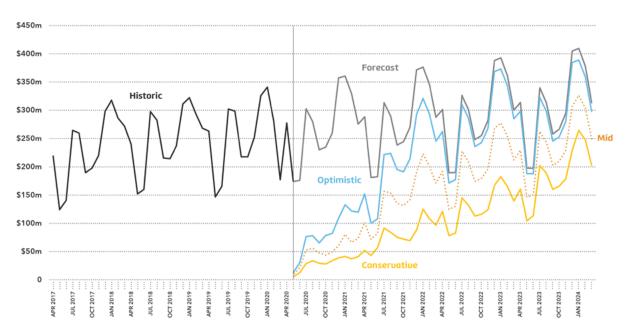
Conservative Scenario for Wanaka





As with the prior scenario, there is huge commonality in the external factors influencing arrivals into the Queenstown Lakes district, and growth of demand for Wanaka is aligned to the Queenstown region. The factors taken into consideration to develop the Wanaka demand curve, are detailed in the commentary within the Queenstown scenarios.

Demand Scenario for Queenstown-Lakes District across All Markets



Queenstown-Lakes District - All markets

This chart is the total picture of visitor demand for the Queenstown Lakes district. This includes both the data points for Queenstown and Wanaka as well as domestic, Australia and all long haul international markets data.

8. Next **Steps**

In this new paradigm, it is important to acknowledge that, we are trying to predict the unpredictable. Currently even experts are finding it difficult to make predictions with any certainty. This document is an attempt to capture, summarize and analyse potential scenarios and outcomes, based on information that is both known and unknown. Whilst we have certainty of specific events actually happening, e.g. borders will eventually open, we do not have any visibility of when this will occur.

With so much uncertainty, it is very challenging to get clarity on how future demand will shape up. The assumptions provide some direction to map the way forward. The scenarios give us an outline of the range of possibilities regarding how demand will ramp up. As we receive more information, we will update the assumptions with facts and track how the demand curve in the scenario changes. We welcome your feedback and input to the model, to work toward continuous improvement.

The final scenario graph depicting the outlook for the total demand for Queenstown-Lakes is broken down into separate data sets and graphs for both Queenstown and Wanaka. Within that, the data sets for both places, are broken down into the three main source markets; domestic, Australia and long haul international markets (exhibit 17 & 18).

The international markets are further broken down to the top seven long haul international markets for New Zealand. This gives us a granular view to track developments and factors that influence arrivals from each of these specific source markets. This will enable adjustments to be made at a granular level, tracking the overall effect on the final demand picture. These breakdown graphs are included in the exhibit section of this paper. Further information is available for members by contacting DQ.

It is important to recognise that this is a 'live' document. DQ will update the information in this model in real time, as external factors change, and publish the updated version for members accordingly. For instance, as soon as the Government reaches a decision on the border reopening with Australia, DQ will update the timelines for the Australian market, which will revise the demand impact in the scenario. Consequently, that will cut the assumptions for Australia across timing and growth rate of demand to just the latter.

This broad view of how markets will come online, and how demand will ramp up, provides DQ with a framework to plot our strategies and activities into a logical plan to re-build demand and to optimise return on our investment in each market.

This also informs and shapes DQ's strategy going forward. It also highlights key information to inform any changes our tourism businesses may need to make to survive through winter. A good example of this is the urgent work required around product development to cater to the re-shaped domestic market.

Eventually international markets will return to pre Covid-19 levels (from anywhere between 3 to 5 years), and this model supports DQ to be able to correctly time the strategic approach, ideally fast tracking growth and attaining a larger market share than before.

DQ will use this framework to inform our business planning for FY20-21 and beyond. The document will guide our planning and provides a framework that can evolved to ensure our decision making is timely and consistent and will produce optimum results. The framework will also provide direction for the organisation's timing and type of activity.

All efforts have been directed towards planning for the various scenarios the future holds for the Queenstown-Lakes visitor economy. The markets opening and demand coming back is a process, over time, not an event. We need to be realistic about the time that may take while also undertaking appropriate activity to expedite this process. And, meanwhile keep calm, plan for all scenarios and wash our hands.

9. Exhibits

Exhibit 1.

(The Economist: Covid-19 has become one of the biggest killers of 2020. Published on May 1st, 2020)(Link)

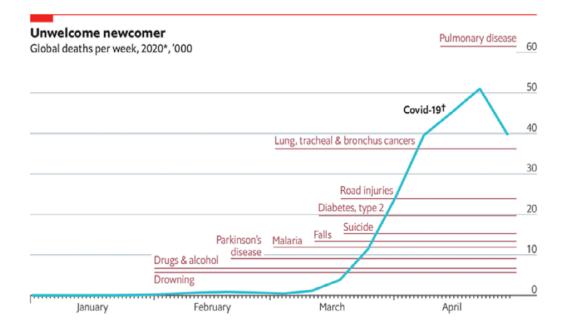
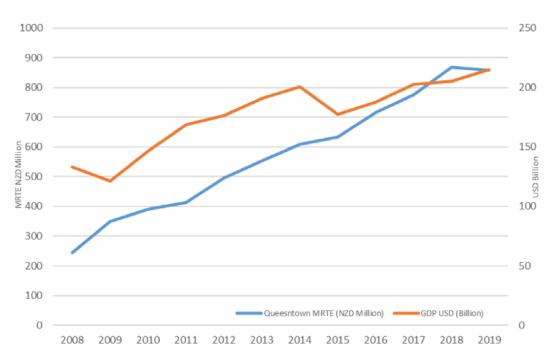


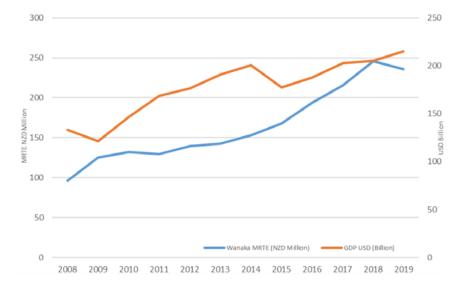
Exhibit 2.

Historic Economy Information: (GDP Data: Trading Economics: Countries GDP per Year data. (Link), International Visitor Arrivals: Statistics New Zealand: Stats NZ Infoshare: International Travel and Migrations – ITM – Data pulled 15th April 2020, MRTE : Ministry of Business, Innovation and Employment: Monthly Regional Tourism Estimates (MRTEs) – data pulled 7th May 2020 (Link))

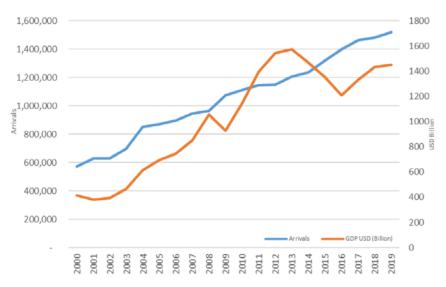
New Zealand GDP and Domestic MRTE Spend (Queenstown) (Yearly)



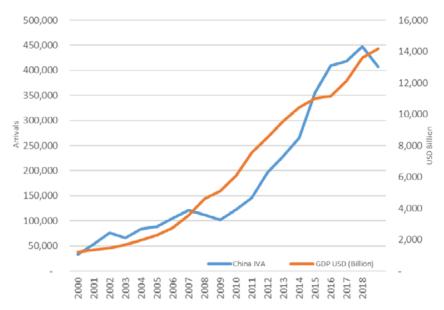
GDP and Domestic MRTE Spend (Wanaka) (Yearly)



Australia- GDP and Arrivals



China – GDP and Arrivals

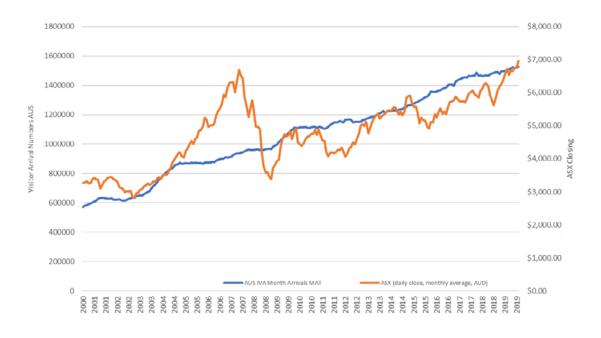


USA - GDP and Arrivals

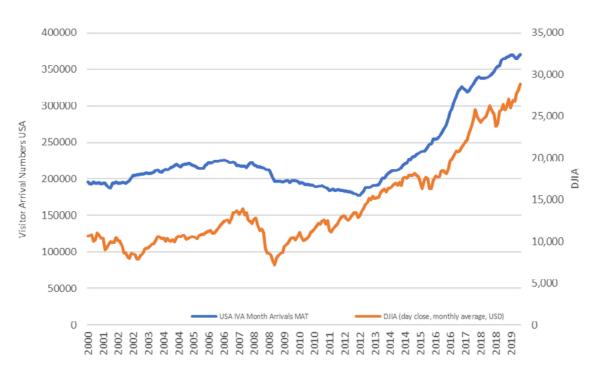


International Stock Markets and Arrivals (Australia, US, China) (Trading Economics: International Stock Markets. (Link))

Australian Stock Market and International Visitor Arrivals to New Zealand – MAT ASX average (monthly average close)



USA Stock Market and International Visitor Arrivals to New Zealand – MAT Down Jones Industry Average (monthly average close)



Chinese Stock Market and International Visitor Arrivals to New Zealand – MAT. SSE (monthly average close)

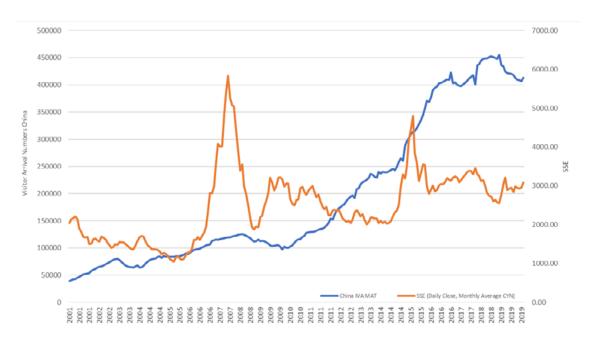


Exhibit 3.

(The Economist: the 90% economy: Life after lockdowns. Published April 30th, 2020 (Link))



The 90% economy that lockdowns will leave behind - The Economist, 30 April 2020

Exhibit 4.

(The Economist: the 90% economy: Life after lockdowns. Published April 30th, 2020 (Link))



Exhibit 5.

World Economic Forum: "Act fast and do what ever it takes" to fight the COVID-19 crisis, say leading economists. Published 23rd March 2020. (Link)

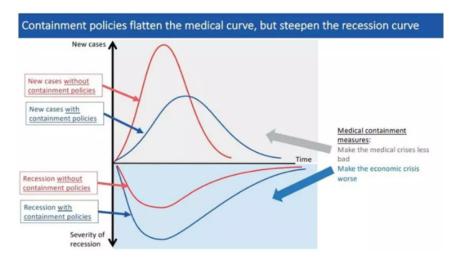


Exhibit 6.

(Statistica. IMF expects swift recovery after COVID-19 Contraction. Published 15th April, 2020. (Link))

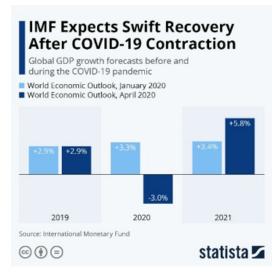
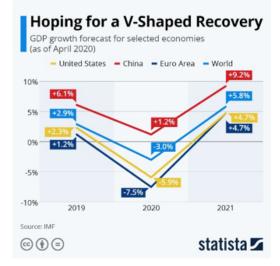
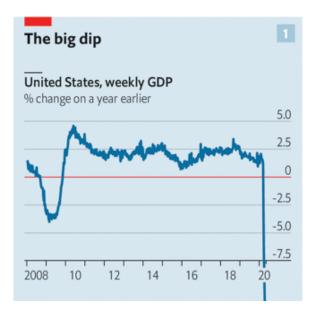


Exhibit 7.

(Statista: Hoping for a V-shaped recovery - published April 15th, 2020 (Link))







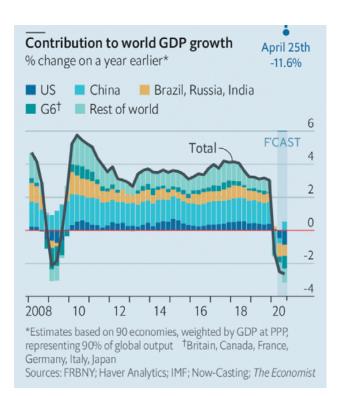


Exhibit 10.

(Verisk Financial: Marketview: Weekly Card Transaction Measure Queenstown Lakes District: Week ending 3 May 2020.)



Exhibit 11.

(John Hopkins University Centre for Systems Science and Engineering)(Link)



Note: JHU CSSE reporting began on Jan. 22, when mainland China had already surpassed 500 cases Source: Johns Hopkins University Center for Systems Science and Engineering

Exhibit 12.

(Bloomberg: Siddharth Vikram Pinto: Airline Industry Now Sees \$314 Billion in Lost 2020 Ticket Sales - published April 15th, 2020 (Link))

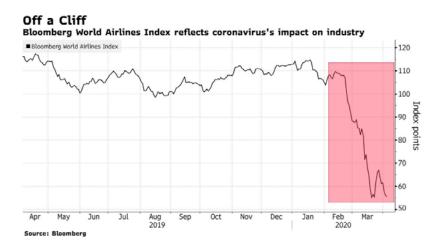


Exhibit 13.

(Statista: Katharine Buchholz, The biggest private coronavirus donations - published on May 7th, 2020. (Link))

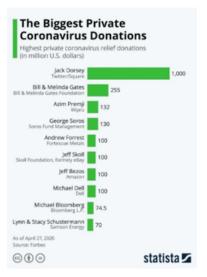


Exhibit 14.

(Statista: Tech giants shrug off Covid-19 crisis in Q1 - published on May 4th, 2020. (Link))



Exhibit 15.

(Statistics New Zealand: Stats NZ Infoshare: International Travel and Migrations - ITM - Data pulled 15th April 2020)

Visitor Arrivals from Australia, China and United States (2001 to 2020)

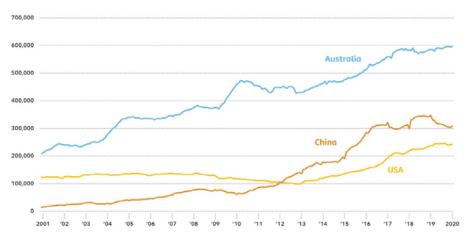


Exhibit 16.

(Westpac: Economic Overview, Covid-19 special edition May 2020. Published 4th May 2020. (Link))

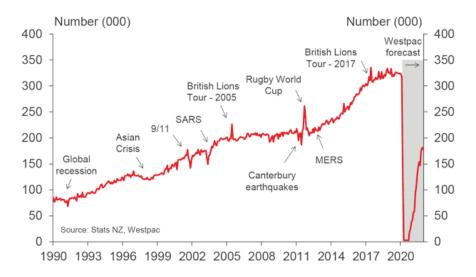
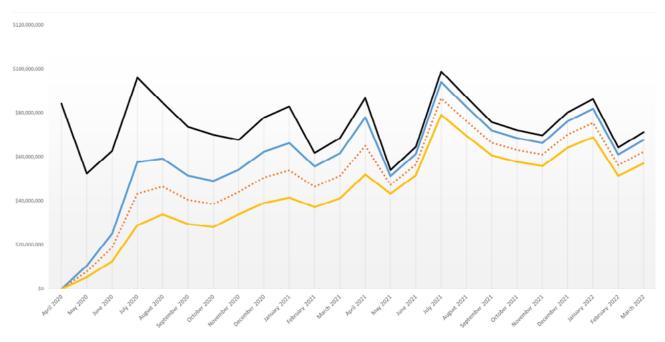


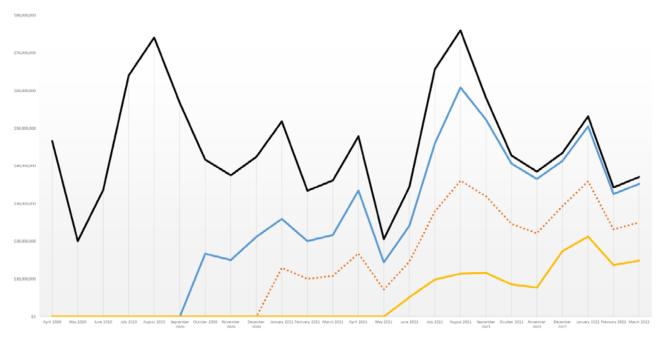
Exhibit 17.

Queenstown Scenarios

Domestic Queenstown Scenario



Trans-Tasman Queenstown Scenario



Long Haul International Queenstown Scenario

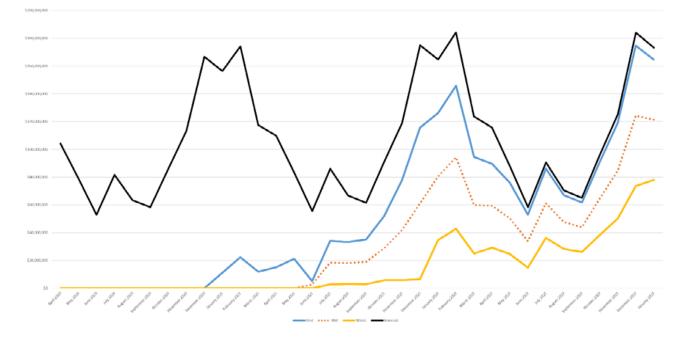
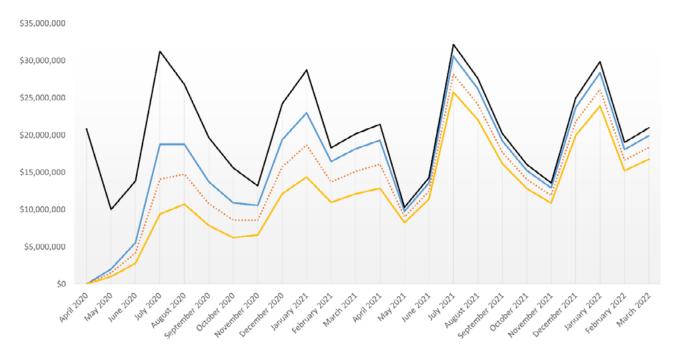


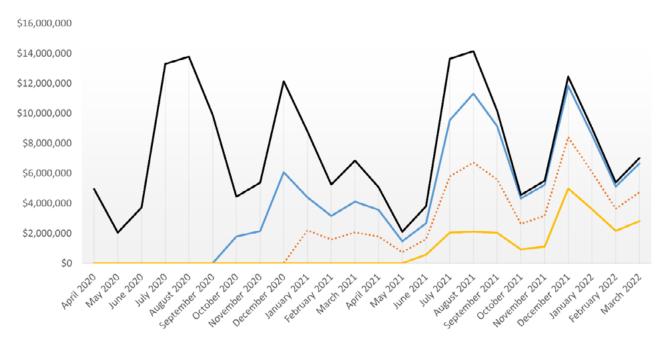
Exhibit 18.

Wanaka Scenarios

Domestic Wanaka Scenario



Trans Tasman Wanaka Scenario



Long Haul International Wanaka Scenario

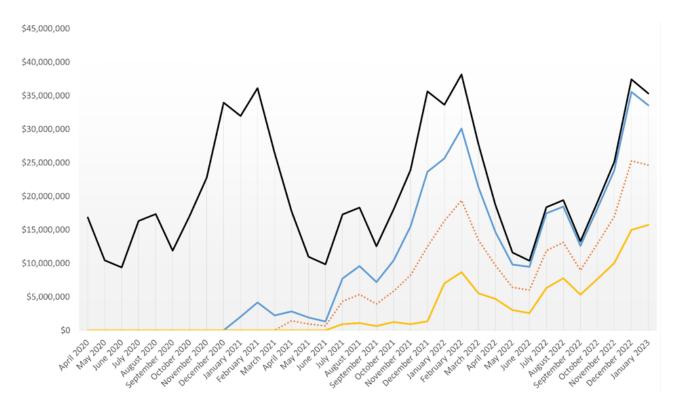
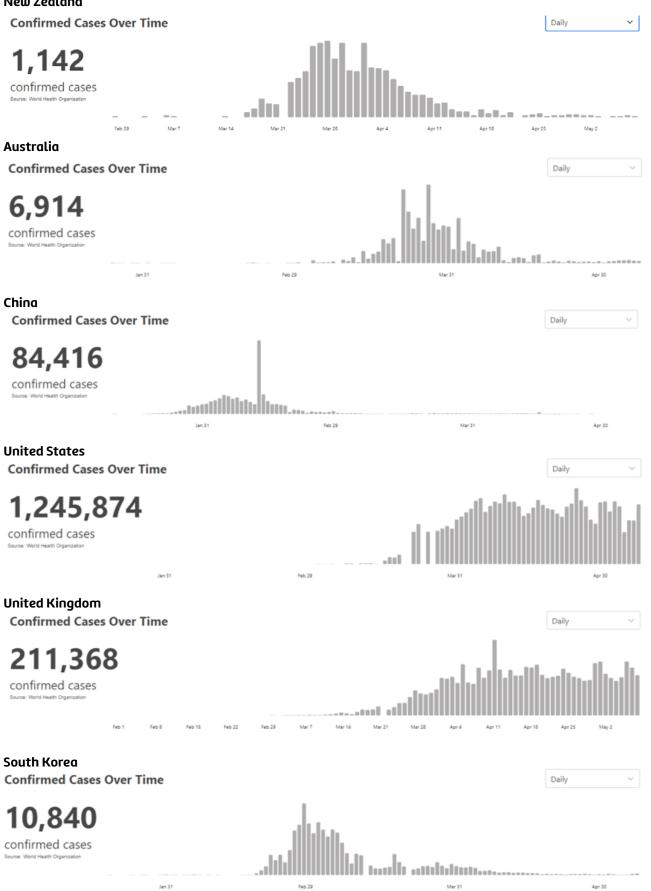


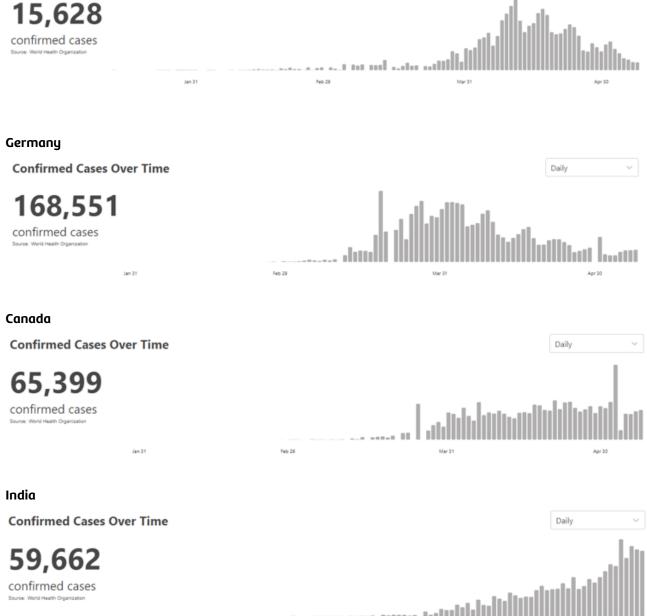
Exhibit 19.

Covid-19 WHO bell curves (Current as of 10-05-2020) (World Health Organisation: WHO Coronavirus Disease (COVID-19) Dashboard. (Link))

New Zealand



Japan Confirmed Cases Over Time **15,628** confirmed cases Source: World Health Organization



Daily

Apr 25

Apr 18

Singapore

Feb 1

Feb 22

leb 15



Mar 21

Mar 28

10. Sources and **References**

- ¹ The Economist: The 90% economy: Like after lockdowns published April 30th, 2020 (Link)
- ² The World Economic Forum: We shouldn't be comparing the coronavirus crisis to 2008 this is why published April 1st, 2020 (Link)
- ³ Statista: IMF expects swift recovery after Covid-19 contraction published April 15th, 2020 (Link)
- ⁴ Statista: Hoping for a V-shaped recovery published April 15th, 2020 (Link)
- ⁵ Stats NZ: New Zealand Gross domestic product (Link)
- ⁶ Westpac Economic Bulletin: 6 May 2020 (Link)
- ⁷ Reserve Bank of New Zealand: Analytical Notes May 2020 (Link)
- ⁸ Michael Wright on Stuff: Future shock, What will New Zealand look like a year after coronavirus? published April 4, 2020 (Link)
- ⁹ Amanda Cropp on Stuff: From hero to zero, what's the future for tourism? published April 5, 2020 (Link)
- ¹⁰ Reserve Bank of New Zealand: Analytical Notes May 2020 (Link)
- ¹¹Catherine Harris on Stuff: Sharemarket winners and losers emerge from lockdown conditions published April 10, 2020 (Link)
- ¹²Westpac Economic Bulletin: 6 May 2020 (Link)
- ¹³Infometrics: Queenstown-Lakes District Economic Profile (Link)
- ¹⁴Infometrics: Queenstown-Lakes District Economic Profile (Link)
- ¹⁵Debbie Jamieson on Stuff: Queenstown's fall from most successful to 'one of poorest areas' after Covd-19 published April 24th, 2020 (Link)
- ¹⁶ Verisk Financial: Marketview: Weekly Card Transaction Measure Queenstown Lakes District: Week ending 3 May 2020.
- ¹⁷ Bloomberg: Siddharth Vikram Pinto: Airline Industry Now Sees \$314 Billion in Lost 2020 Ticket Sales published April 15th, 2020 (Link)
- ¹⁸BBC News: Warren Buffett's company Berkshire Hathaway sells US airline shares published May 3rd, 2020 (Link)
- ¹⁹ Ross Dawson: 9 insights into the future of air travel in a post-coronavirus world published April 2nd, 2020 (Link)

²¹Air New Zealand Media Releases: Air New Zealand adds Domestic Flights for Alert Level Two. Published May, 8th 2020 (Link)

²⁰Auckland Airport: Air cargo connections continue in Cov-19 lock-down - published April 13, 2020 (Link)

- ²²New Zealand Herald: Covid 19 coronavirus, Start planning transtasman 'bubble' now, says Auckland Airport chief - published April 13th, 2020 (Link).
- ²³Milken Institute (Link)
- ²⁴Business Insider: Isobel Asher Hamilton, Bill Gates is funding new factories for 7 potential coronavirus vaccines, even though it will waste billions of dollars - published on April 8th, 2020 (Link)
- ²⁵BBC News: Fergus Walsh, Coronavirus: First patients injected in UK vaccine trial published on April 23rd, 2020. (Link)
- ²⁶Conde Nast Traveler: Jessica Puckett, Emirates is giving a rapid test for coronavirus to passengers before boarding - published on April 15th, 2020. (Link)
- ²⁷ Statista: Katharine Buchholz, The biggest private coronavirus donations published on May 7th, 2020. (Link)
- ²⁸ Tourism Industry Aotearoa: Quick Facts & Figures (Link)
- ²⁹ Press release: Opinion Compare: Domestically, we long to travel (but it's back to the plaes we've been before) published may 4th, 2020. (Link)
- ³⁰Tom Kitchin on Stuff: Coronavirus: Southern skifields brace for uncertain winter season published April 11th, 2020. (Link)
- ³¹Statista: Tech giants shrug off Covid-19 crisis in Q1 published on May 4th, 2020. (Link)
- ³²NY Post: Melissa Malamut, Cruise bookings are on the rise for 2021 despite coronavirus published on April 1st, 2020. (Link)
- ³³Fortune: Jonathan Levin, Would you book a cruise for \$28 a night? Carnival bets on budget travellers for a planned restart on August 1 published on May 1st, 2020. (Link)
- ³⁴New Zealand Statistics: Stats NZ Infoshare: International Travel and Migration ITM Data pulled 15th April 2020
- ³⁵New Zealand Statistics: Stats NZ Infoshare: Accommodation Survey ACS Data pulled 15th April 2020
- ³⁶ Ministry of Business, Innovation and Employment: Monthly Regional Tourism Estimates (MRTEs) data pulled 7th May 2020 (<u>Link</u>)
- ³⁷Queenstown International Airport: Airport Statistics (Link)
- ³⁸Infometrics: Queenstown-Lakes District Economic Profile (Link)
- ³⁹Singapore University of Technology & Design Data Driven Innovation Lan: Predicative Monitoring of COVID-19. Updated 8th May 2020. (Link)