FORSYTH BARR

NEW ZEALAND EQUITY RESEARCH

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Transport Trends
An Exceptional Year — Bring on 2021

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The transport sector ends what has been an exceptional year (on so many fronts) in relative strength given a combination of reality, optimism and hope. Valuations have recovered strongly from the late March trough thanks to a combination of interest rate compression, an improved forward outlook and superior market positioning of most of the listed players. Aviation remains most challenged, but optimism stems from the hope of trans-Tasman and Pacific Island bubbles opening up in the new year. In contrast, the reality for freight and parcel industry players has been a swift market recovery and customer opportunities arising in part from supply chain congestion. There remains a reasonable degree of uncertainty for the year ahead, yet the onset of mass vaccinations and a steadily improving macro backdrop suggests optimism isn't misplaced. We prefer OUTPERFORM rated transport operators Mainfreight (MFT) and Freightways (FRE) in the sector.

Key transport trends and themes

We pay particular attention to a number of trends in this edition of Transport Trends and all reflect the significant impact that COVID-19 has had on the wider industry:

- **Domestic air travel** has recovered from the lockdown troughs but remains materially below pre COIVD-19 levels. A full recovery is unlikely to occur until all borders reopen and international travel returns on a commercial basis. A trans-Tasman bubble would significantly assist both airports and airlines.
- **Ecommerce** spending appears to have been boosted by consumer behavioural changes as a result of COVID-19. This represents a key positive driver for the domestic parcel industry, fuelling business-to-consumer (B2C) channel growth. Volume growth combined with recent pricing initiatives have helped lift B2C channel margins into profit from break-even.
- **Global supply chains** have struggled with lack of supply as a result of the pandemic. Airfreight was impacted early on given reduced passenger aircraft capacity, and despite capacity increases remains challenged. More recently seafreight rates have increased significantly due to worsening port congestion and container availability.
- **Rising export log prices** are a welcome sign after a turbulent 18 months for this key export trade. Lower inventories on Chinese wharves is helping the market recover. Export log volumes are currently below the likely trend level for the next 5-10 years given the impending wall of wood, which will assist port profitability.

Sector preferences

We summarise our sector stock ratings as follows:

- OUTPERFORM: Freightways, Mainfreight
- NEUTRAL: Air New Zealand, Auckland Airport, Napier Port
- UNDERPERFORM: Port of Tauranga

A summary of Transport Trends

In each edition of Transport Trends we provide the latest available transport sector statistics and industry data. We extract and analyse the data to determine the impact and implications for companies under our coverage.

Key trends discussed

In this edition of Transport Trends we feature several key trends that highlight the broader economic recovery as well as New Zealand's move down the Alert Level system. These trends shape the broader transport industry and are relevant to one or more NZX listed transport companies:

- Trend #1: Domestic passenger flights trending higher but still well short of pre COVID levels
- Trend #2: The COVID-19 ecommerce boom
- Trend #3: Global supply chain issues creating Christmas headache
- Trend #4: Rising export log prices

Stock preferences

We have preference for transport operators Mainfreight and Freightways, which are both navigating the challenges of COVID-19 well, as evidenced by accelerated earnings growth.

OUTPERFORM: Mainfreight (MFT), Freightways (FRE)

- **MFT's** 1H21 result highlighted the company's strong growth profile and high quality earnings characteristics. It is benefitting from customer wins in all geographies and has a strong pipeline of new opportunities, reflective of its focus on sales in recent years. We continue to expect above trend growth as network expansion continues.
- **FRE** has begun FY21 with double digit parcel volume growth and further pricing gains through its 'pricing for effort' initiative. The profitability of FRE's core parcel business is supported by an increasingly rational competitive backdrop. Moreover, we see margin recovery scope within its less-attractive Information Management operations.

NEUTRAL: Auckland Airport (AIA), Air New Zealand (AIR), Napier Port (NPH)

- **AIA** is geared toward international travel, and will remain challenged until borders reopen. There is increased likelihood that trans-Tasman and Pacific Island travel will open-up sometime during early 2021. In the meantime the business is in a holding pattern, supported by a defensive investment in property portfolios.
- **AIR** will likely remain in a cash burn situation until the resumption of meaningful international travel and will require a capital injection to help mend its balance sheet. However, positive vaccine news as well as a strong recovery in domestic travel has helped improve sentiment.
- **NPH** reported a solid FY20, in-line with IPO guidance despite COVID-19 disruption. Guidance for FY21 suggests a profit decline, due to (1) loss of cruise revenue, (2) temporary cost saving measures unwinding, and (3) investments in people and capability. Moreover, NPH's return on capital is under pressure from the significant 6-Wharf investment and lack of near-term pricing initiatives.

UNDERPERFORM: Port of Tauranga (POT)

- **POT's** 1Q21 showed trade cargo tonnage down -5% and outlook commentary reflects concerns around the consistency of trade volumes and the broader macro backdrop. We expect negative earnings momentum in the near term, and with it trading at a one year forward PE of 52x, it appears expensive.

Figure 1. Valuation summary as at 17 December 2020 (NZ$)

			Share	Target	Gross yld	PE		EV/EBITDA	
Company	Code	Rating	price	price	FY21	FY21	FY22	FY21	FY22
Air New Zealand	AIR	NEUTRAL	1.88	1.60	0.0%	-9.7x	89.0x	6.3x	3.8x
Freightways	FRE	OUTPERFORM	10.00	10.50	4.8%	21.7x	19.1x	10.1x	9.5x
Mainfreight	MFT	OUTPERFORM	61.91	62.00	1.6%	34.4x	30.0x	13.9x	12.8x
Auckland Airport	AIA	NEUTRAL	7.90	6.90	0.0%	0.1%	61.7x	78.1x	30.3x
Napier Port	NPH	NEUTRAL	3.35	3.45	2.9%	35.4x	30.9x	17.0x	14.9x
Port of Tauranga	POT	UNDERPERFORM	7.38	6.30	2.4%	53.5x	49.8x	33.5x	31.3x

Source: Thomson Reuters, Forsyth Barr analysis

Key trends identified

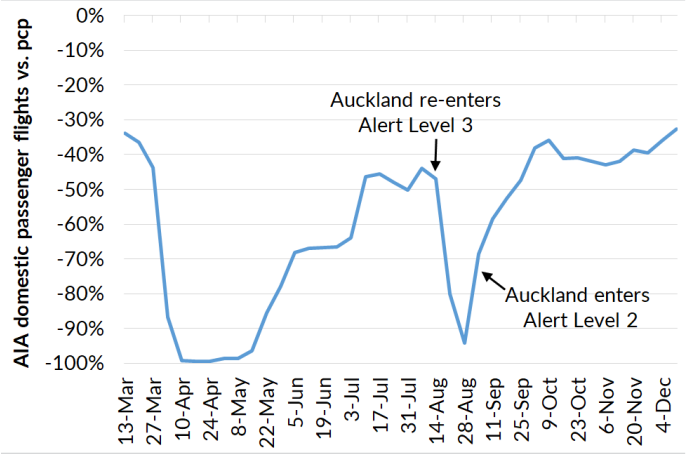
Trend #1: Domestic passenger flights trending higher but still well short of pre COVID levels

In the week ending 11 December 2020, domestic passenger (pax) flights arriving at Auckland Airport were -32% below that of the same week last year. This represents a solid recovery in domestic travel following the sharp drops experienced in Alert Level 4 and 3 lockdowns, and in relative terms is far better than Sydney Airport (SYD.AX) which saw an -80% drop in domestic pax in November 2020. However, pax still remain substantially lower than the prior year despite the solid nature of the domestic recovery. This reflects several factors, in our opinion:

- International/domestic transfers, which typically account for ~15–20% of domestic pax
- Business travellers, which are generally recovering more slowly than leisure travellers
- Seasonality will increasingly impact the domestic recovery through the peak summer international season
- Exit of Jetstar regional in November 2019. This will no longer impact the year on year change from December

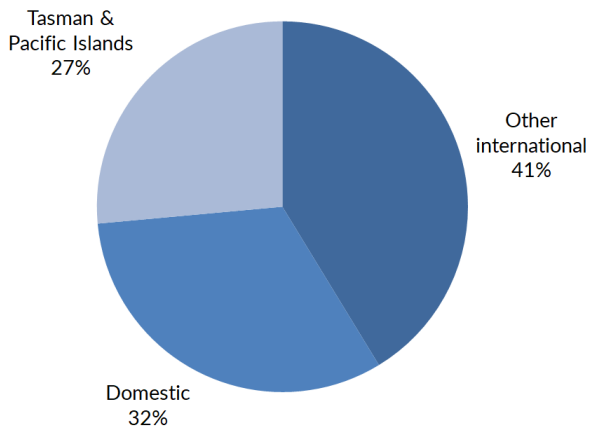
The trans-Tasman bubble, potentially operational by the end of the first quarter of 2021, will assist the domestic recovery, given the connectivity benefit into Air New Zealand's domestic network.

Figure 2. Domestic passenger flight arrivals into AIA vs. pcp



Source: Flightaware, OAG, Forsyth Barr analysis

Figure 3. Domestic as a % of AIR passenger revenue (FY19)



Source: Forsyth Barr analysis

Implications for AIR

In FY19 domestic represented ~32% of total pax revenue for AIR, but a likely higher proportion of pax profits given the higher margin nature of its dominant domestic business. AIR will likely remain in a cash burn/loss making situation until borders reopen and commercial international aviation recommences en masse.

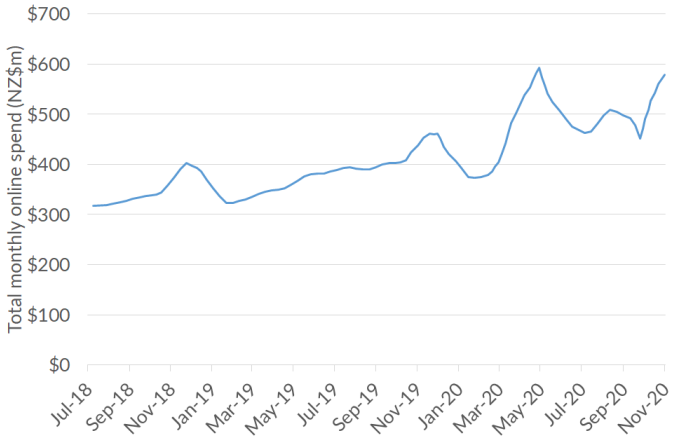
Implications for AIA

AIA is more leveraged to international pax than domestic. We estimate each international pax contributes ~5x that of a domestic pax. Therefore, its recovery is highly geared to the reopening of borders. The Tasman market in particularly is critical as pre COVID-19 it accounted for ~45% of international pax.

Trend #2: The COVID-19 ecommerce boom

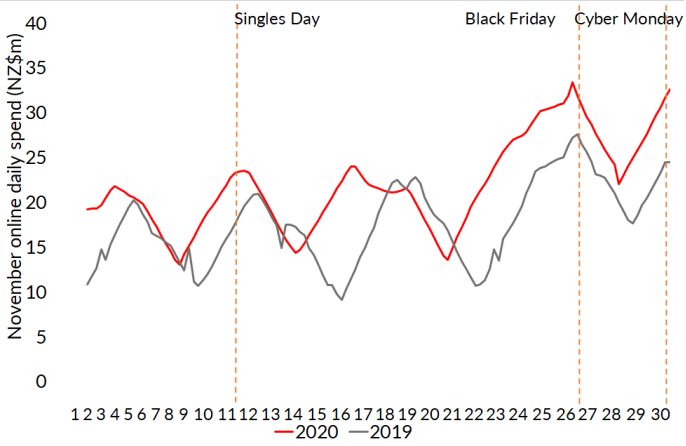
2020 has been the year of the virus, WFH, social distancing, masks and also ecommerce. The ecommerce boom has been a positive driver of parcel delivery volumes, particularly from online retailers based in New Zealand. Data from NZ Post suggests ecommerce value has increased by ~+25% through the year. Moreover, the data suggests the rate of growth has remained very strong through the peak November online sales season, up +27% year on year. Shortly after level 4 lockdown ended in May, we expected a permanent lift in ecommerce activity given the change in shopping habits that would set in to consumer behaviour. This appears to be the case, effectively bringing forward several years of ecommerce penetration growth.

Figure 4. Total monthly online spend



Source: NZ Post, Forsyth Barr analysis

Figure 5. November 2020 daily online spend



Source: NZ Post, Forsyth Barr analysis

Implications for Freightways (FRE)

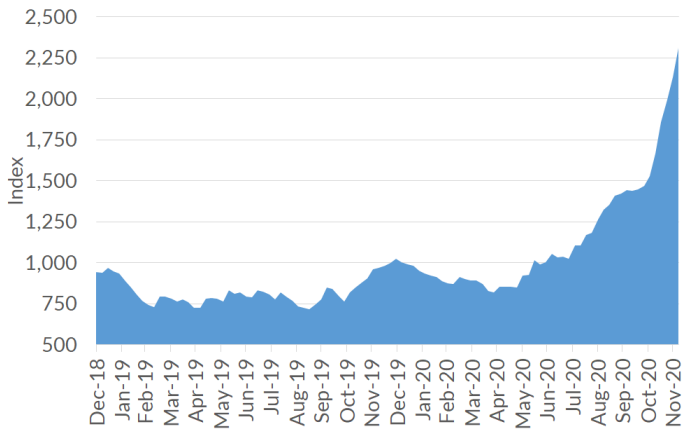
FRE is a B2B (business-to-business) focussed parcel delivery business that is now increasing its exposure to B2C (business–to-consumer) given (1) the success of its 'pricing for effort' initiative (it has now reached an ~NZ$1 premium to B2B and is implementing another 50c increase from 1 February 2021), (2) competitor challenges through the COVID-19 volume surge, and (3) online retail growth. Having been a zero margin business for FRE historically, given the higher cost to serve but pricing parity with B2B, the B2C channel now offers an attractive earnings growth engine and is a key driver of our OUTPERFORM call.

Trend #3: Global supply chain issues creating Christmas headache

Container seafreight rates have increased rapidly in recent months, as shown in Figure 6, adding costs to global supply chains. This is a function of a number of market dynamics including: (1) the swift reopening of China's economy after its early 2020 lockdowns and strong demand for its exports impacting trade flows, (2) delays at ports globally causing ships to travel faster to make up time, increasing fuel costs, and (3) absenteeism and sickness causing labour shortages at key hub ports.

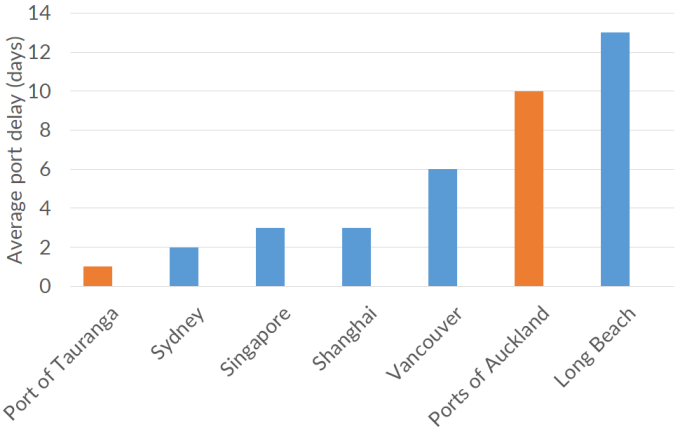
Meanwhile, New Zealand ports are experiencing unprecedented congestion, with ships skipping ports or waiting for extended periods to unload, especially at Ports of Auckland (POAL). In addition to the knock-on impact of global congestion impacting berthing windows at ports, POAL has been constrained as a result of (1) a labour shortage for skilled workers, and (2) apparent problems with its automation project, completion of which has been delayed by 12 months to early 2021. A number of vessels have bypassed POAL putting more pressure on the capacity constrained POT, which has had to close its Auckland inland port, Metroport, to inbound containers on multiple occasions.

Figure 6. Shanghai containerised freight index (SCFI)



Source: SSE, Forsyth Barr analysis

Figure 7. Average container delay to original port (Feb 2020-ytd)



Source: Gocomet, Forsyth Barr analysis

Implications for the transport sector

Shipping industry congestion has a number of implications:

- Increased cost for ports as a result of the extra handling involved with the congestion, as already referenced by POT and incorporated in its subdued FY21 guidance.
- The potential elasticity impact on import volumes due to elevated freight costs.
- The risk of a shortage of empty reefer containers for the New Zealand export season. Napier Port (NPH) is heavily exposed to pip-fruit exports.
- With the shadow of The Upper North Island Supply Chain still hanging over the industry from the previous government, any ongoing problems at POAL, and further market share wins by POT, may influence the ultimate structural solution that is put in place.

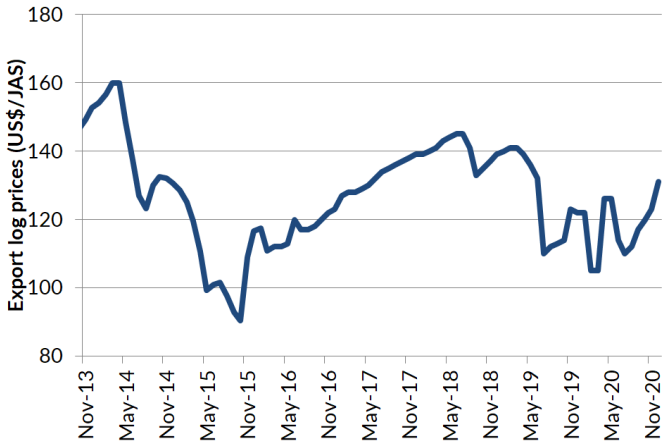
Overall global supply chains, as well as domestic congestion issues, will likely take many months to resolve.

Trend #4: Rising export log prices

A-grade export log prices have recovered further into year end with the latest AgriHQ data point suggesting a US$8/JASm3 increase to US$131/JASm3 in December. This compares to the trough in February 2020 of US$105/JASm3 and the average for the past two years of US$122/JASm3. More specifically, the price range achieved in the month at North Island ports was US$129–US$140/JASm3 and a typically lower range for South Island ports.

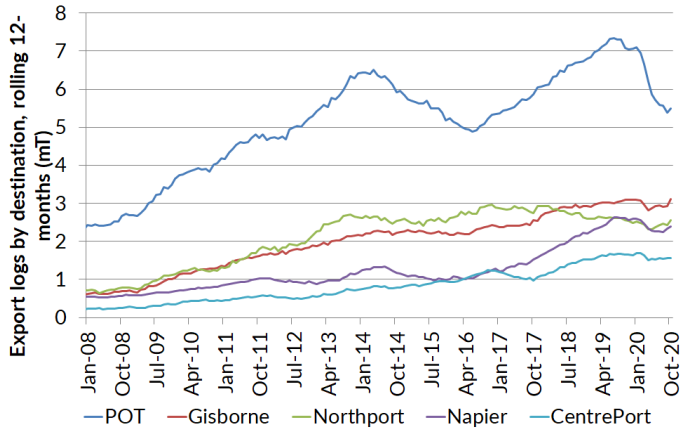
Log price increases simplistically reflect lower inventories at Chinese ports, which anecdotally continue to fall (despite a sizeable lift in European imports during 2020), therefore, should assist the export market through early 2021. However, we're conscious that USD weakness means the impact on NZD equivalent prices is less positive.

Figure 8. Log export prices (A-grade)



Source: AgriHQ, Forsyth Barr analysis

Figure 9. Log volume growth at POT, NPH and other ports



Source: Statistics NZ, Forsyth Barr analysis

Implications for POT and NPH

While NPH is more exposed to export logs than POT, they represent a material earnings driver for both. We estimate logs accounted for ~17% of POT's EBITDA in FY20 and ~45% of NPH's. Our forecasts already assume a lift in log export volumes for both ports reflective of (1) rising log export prices, and (2) the wall of wood that is due for harvesting.

Operating statistics and industry data

Airports and airlines

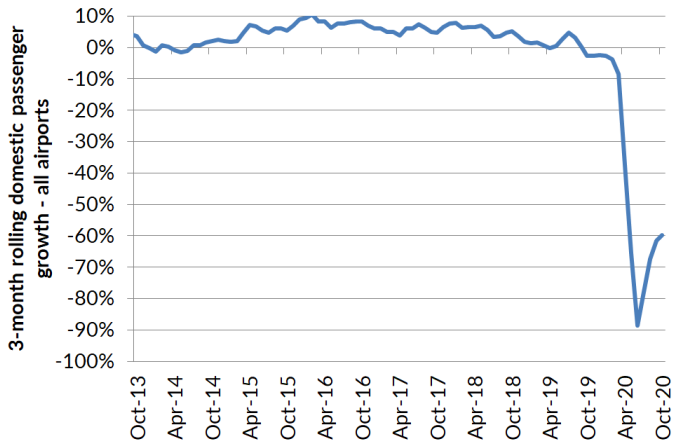
Data in this section is relevant to listed companies including Auckland Airport (AIA), Infratil (IFT) and Air New Zealand (AIR). Statistics principally reflect passenger movements but also cover seat capacity changes and other key airline specific data.

Airports

Domestic passenger movements within New Zealand

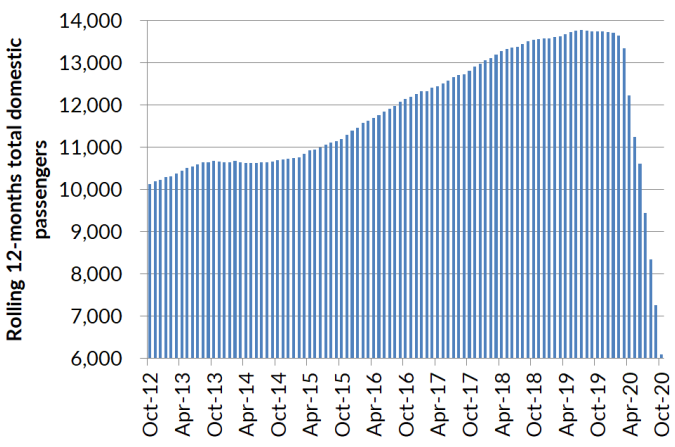
Monthly domestic passenger data for all NZ airports is not publicly available. While Air NZ provides monthly statistics, Jetstar historically provided six-monthly summaries (at financial result time), but stopped doing so several years ago. As a result, we have built our own domestic passenger series using available airport and airline data. We show the assumed timeseries of passengers in Figure 11.

Figure 10. Total domestic passenger growth



Source: Company reports, Forsyth Barr analysis

Figure 11. Total domestic passengers ('000)

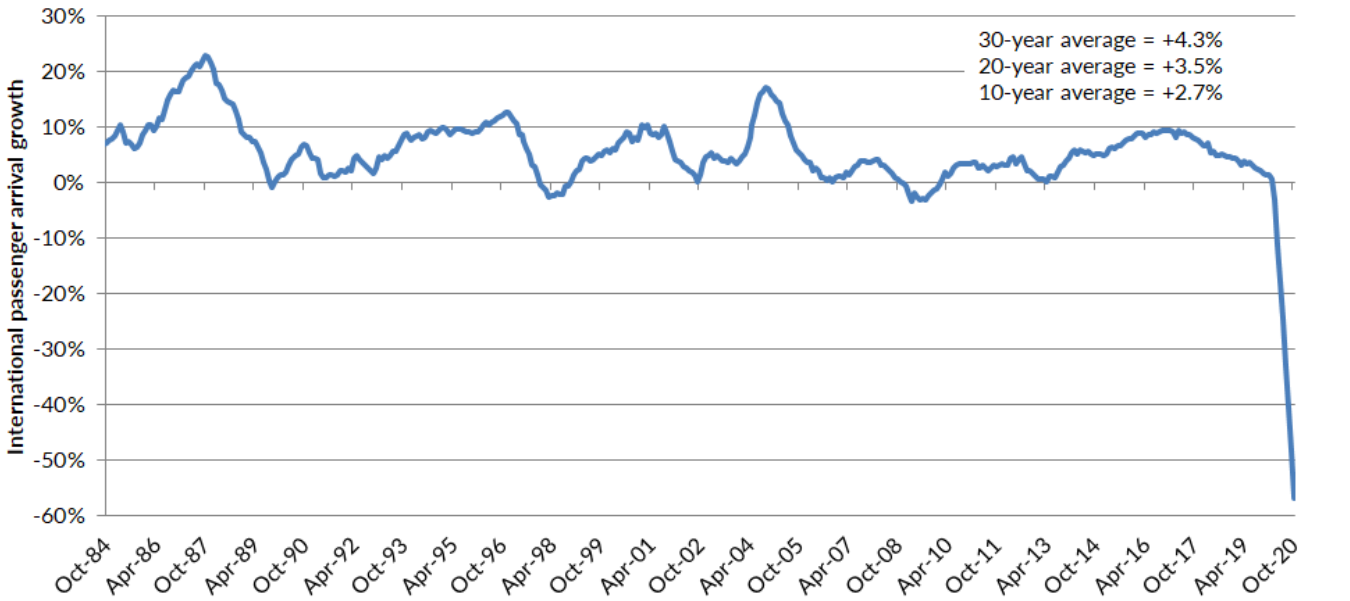


Source: Company reports, Forsyth Barr analysis

International passenger movements into New Zealand

In Figure 12 we show total international passenger arrivals across all New Zealand international airports (including Auckland, Christchurch, Wellington, Queenstown and Dunedin). Average annual international passenger growth for the past 30-years amounts to +4.3%.

Figure 12. Total international pax arrivals across all New Zealand airports (12 months rolling)

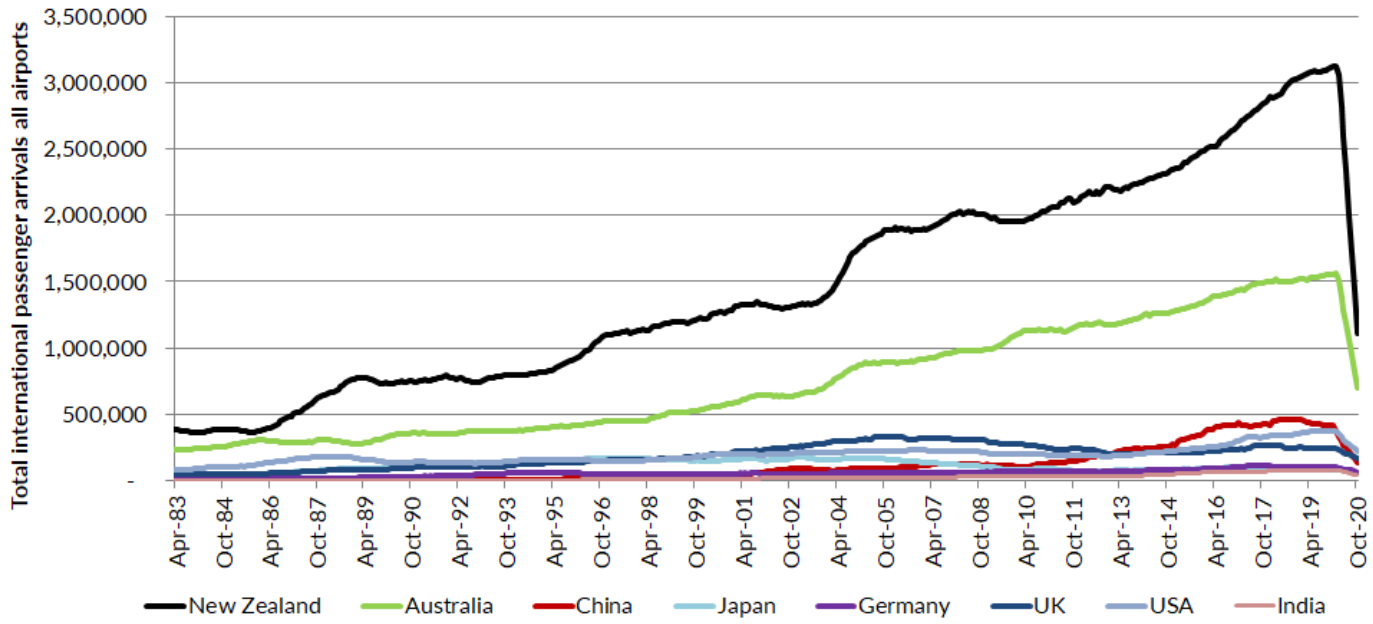


Source: Stats NZ, Forsyth Barr analysis

The origin of International passenger arrivals

New Zealanders travelling overseas account for the largest proportion of international travellers. Australians represent the next biggest segment of the market. China has risen rapidly in recent years overtaking more traditional visitor countries.

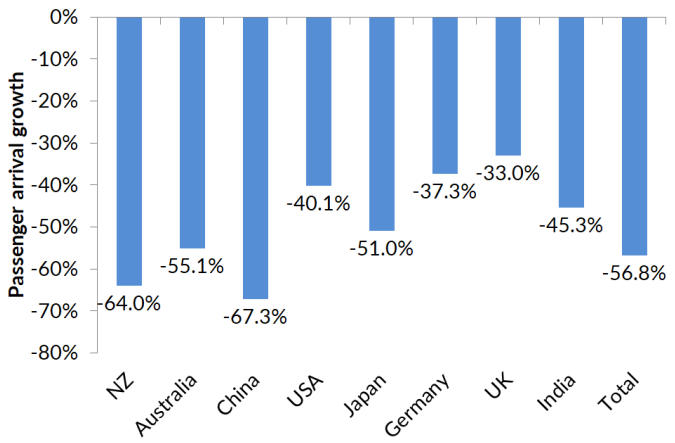
Figure 13. International passengers country of residence (12 months rolling)



Source: Statistics NZ, Forsyth Barr analysis

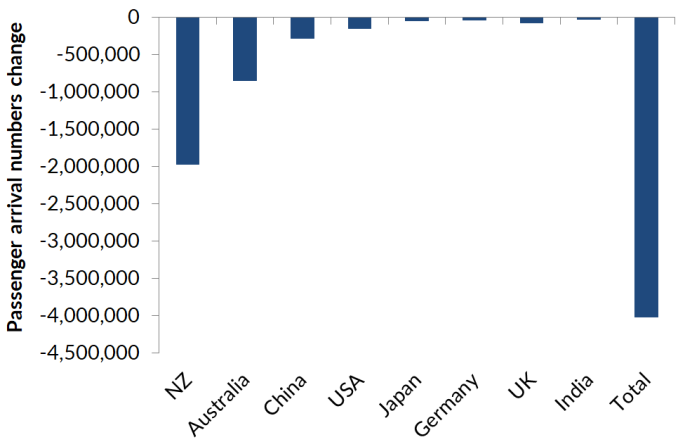
The year-on-year change in both percentage and absolute numbers for Figure 13 are shown in Figure 14 and Figure 15 respectively.

Figure 14. International arrivals growth (12m to Oct 2020)



Source: Statistics NZ, Forsyth Barr analysis

Figure 15. International arrivals change (12m to Oct 2020)

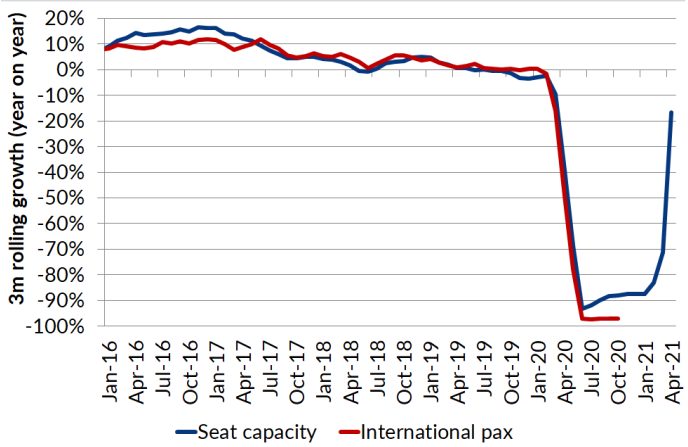


Source: Statistics NZ, Forsyth Barr analysis

International seat capacity compared to passenger data

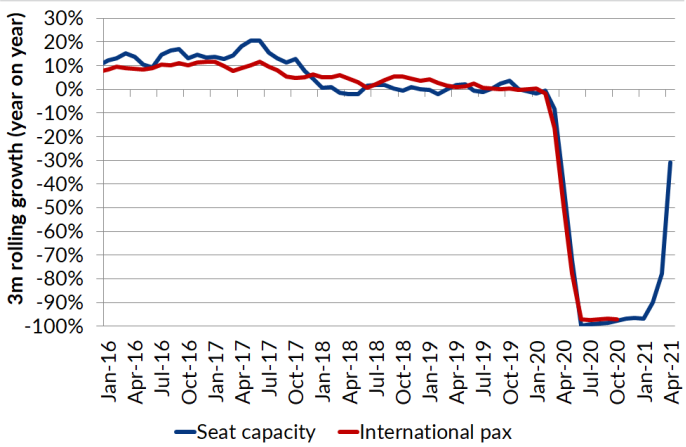
In Figures 16 and 17 we show scheduled international seat capacity growth for Auckland and Christchurch airports respectively over recent years and compare to international passenger data. Where gaps appear load factors will be changing. The forwarding looking capacity data is based on airline schedules, which continue to assume a return of suspended services on a 2–3 month forward basis.

Figure 16. AIA international capacity vs passengers



Source: OAG, NZ Stats, Forsyth Barr analysis

Figure 17. CIAL international capacity vs passengers



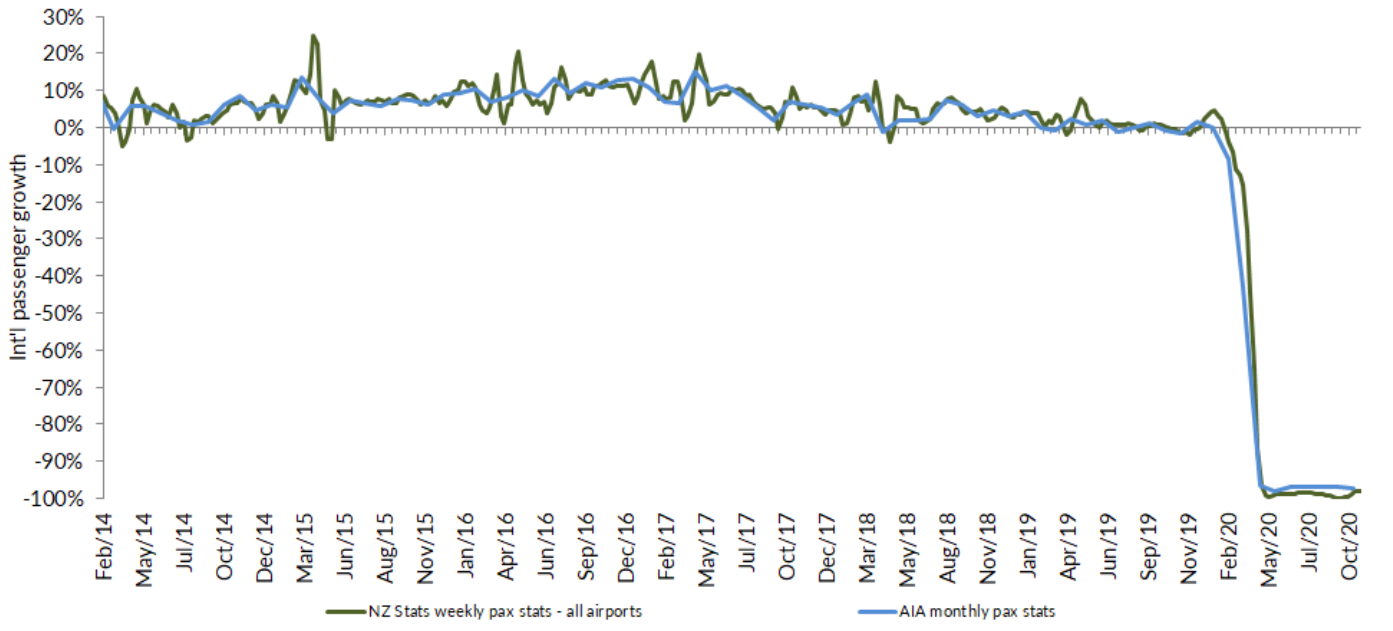
Source: OAG, NZ Stats, Forsyth Barr analysis

Auckland Airport

Weekly international pax data

NZ Statistics provides weekly international pax data based on New Zealand resident departures and overseas resident arrivals. While the data is for all New Zealand airports, AIA's historic ~75% share of international pax means the data offers a good forward proxy of its upcoming monthly releases.

Figure 18. AIA's international pax growth follows all airports pax data



Source: Statistics NZ, Forsyth Barr analysis

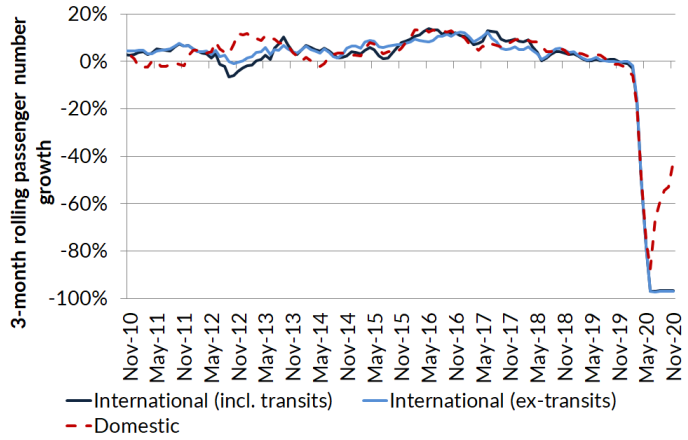
Monthly pax numbers

Auckland Airport is ~18% owned by the Auckland City Council and is New Zealand's premier airport, it also provide Air New Zealand with a domestic and international hub. AIA reports monthly traffic numbers. We chart the airports passenger growth history since 2009 in Figure 19.

Queenstown Airport (24.99% AIA owned)

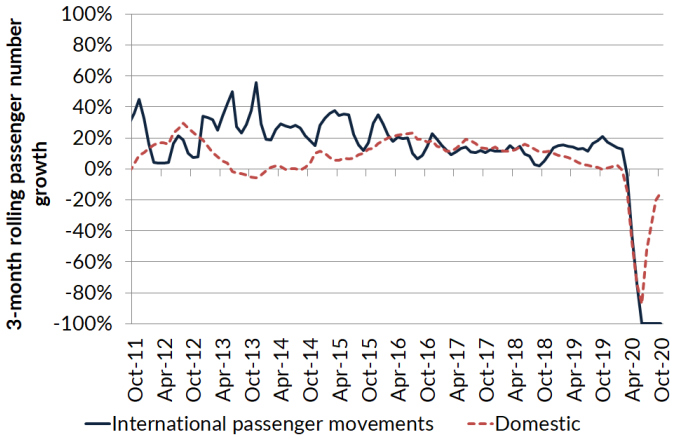
AIA acquired a 24.99% stake in Queenstown Airport in July 2010. Queenstown is the fourth busiest airport in New Zealand and is a key entry point for Australian visitors during the ski season. We show passenger growth trends in Figure 20.

Figure 19. Auckland Airport passenger number growth



Source: Company reports, Forsyth Barr analysis

Figure 20. Queenstown Airport passenger number growth



Source: Company reports, Forsyth Barr analysis

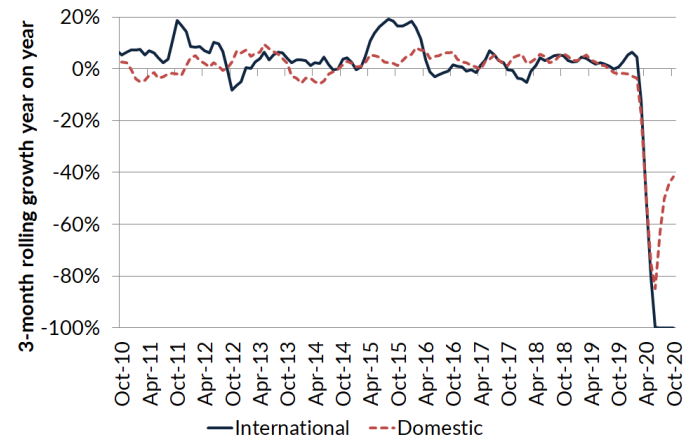
Wellington Airport

Wellington Airport is owned by Infratil (66%) and Wellington City Council (34%). It is the third busiest airport in New Zealand. Domestic passengers have historically accounted for ~87% of all passengers. The relatively short length of the runway (~2.1km) limits the use of the airport for larger planes on long-haul services. We show recent passenger growth trends in Figure 21.

Christchurch Airport

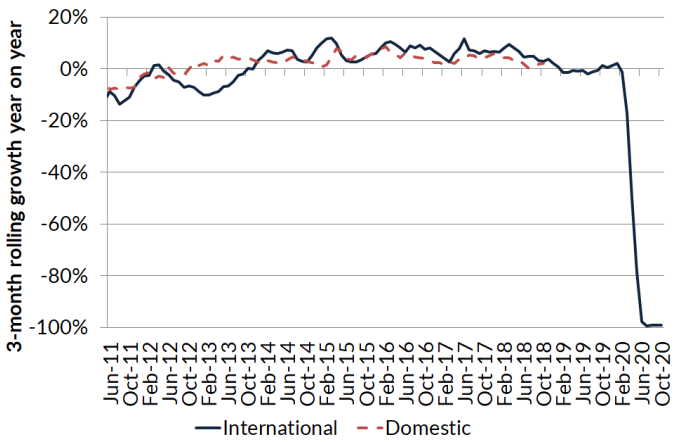
Christchurch Airport is 75% owned by the Christchurch City Council and 25% owned by the New Zealand Government. Since the 2010/2011 earthquakes Christchurch has lost share of international passengers to Auckland but experienced growth from late 2013. Christchurch Airport has not reported domestic passenger numbers since late 2018.

Figure 21. Wellington Airport passenger number growth



Source: Company reports, Forsyth Barr analysis

Figure 22. Christchurch Airport passenger number growth



Source: Company reports, Forsyth Barr analysis

Airlines

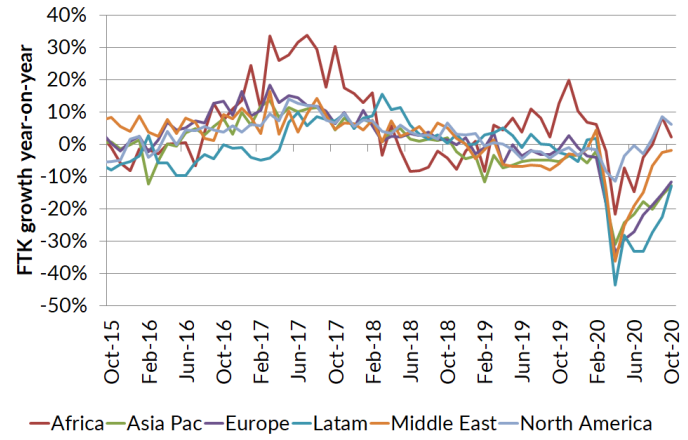
IATA global air freight data

IATA releases air freight tonne kilometres (FTKs) travelled monthly for all regions globally. FTK is a measure of the size of an airline's freight business and is calculated as freight tonnage multiplied by distance travelled.

IATA global air passenger data

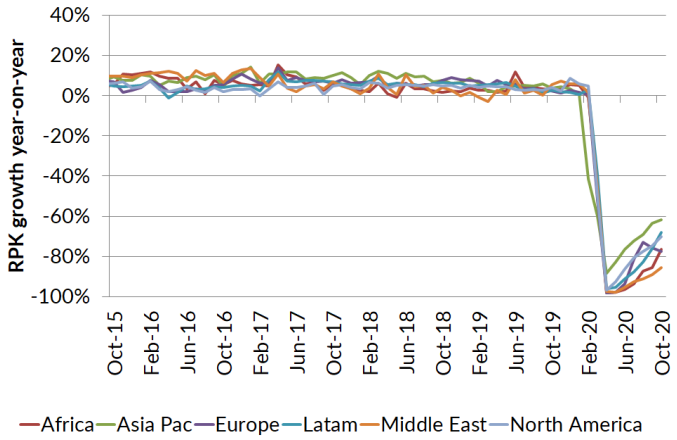
In Figure 23 we show IATA data for airline sector growth in revenue passenger km (RPK) across all regions. RPK is a measure of the passenger volume flown by airlines. It is calculated by multiplying the number of passengers flown by distance travelled.

Figure 23. Freight tonne kilometre (FTK) growth by region



Source: IATA, Forsyth Barr analysis

Figure 24. Revenue passenger km (RPK) growth by region



Source: IATA, Forsyth Barr analysis

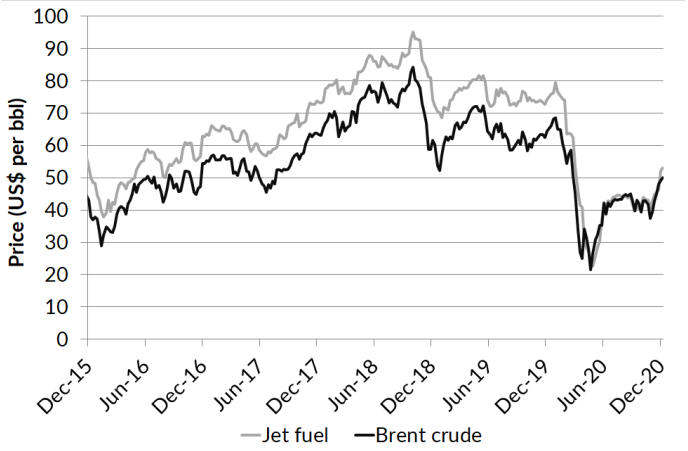
Jet fuel prices

Jet fuel is the largest single operating cost for airlines. Jet fuel prices have fallen significantly over the past two years as shown in Figure 25 but has partially recovered from March/April 2020 lows.

Brent and crack spread

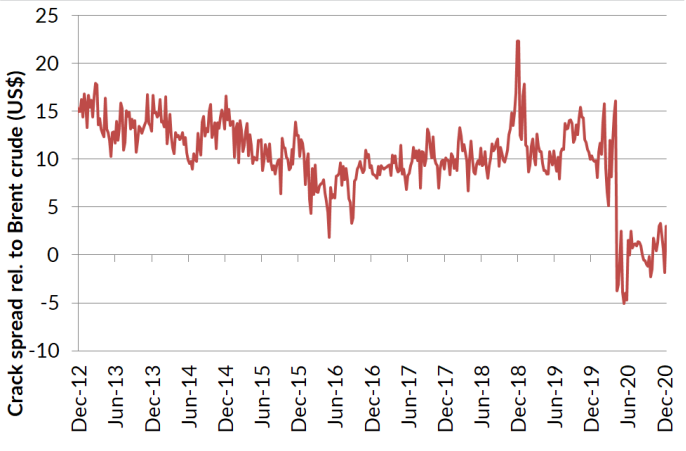
Jet fuel prices are a function of crude prices, the crack spread (the cost of converting crude oil into jet fuel), and into plane (supply chain) expenses. In Figure 26 we show the history of the crack spread relative to the Brent crude price.

Figure 25. Jet fuel price (spot)



Source: Bloomberg, Forsyth Barr analysis

Figure 26. Crack spread relative to Brent crude price



Source: Bloomberg, Forsyth Barr analysis

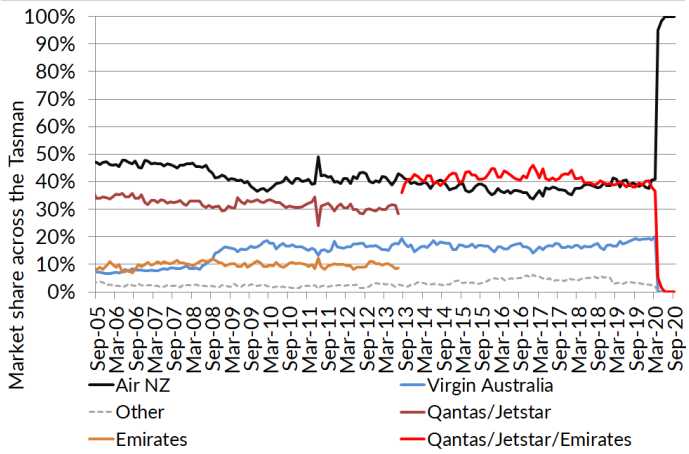
Trans-Tasman market share

In Figure 27 we show the historical market share development of trans-Tasman services. Air New Zealand currently has a near ~100% market share due to repatriation flights across the Tasman. The Air New Zealand and Virgin Australia JV ended in late October 2018.

Tasman load factors

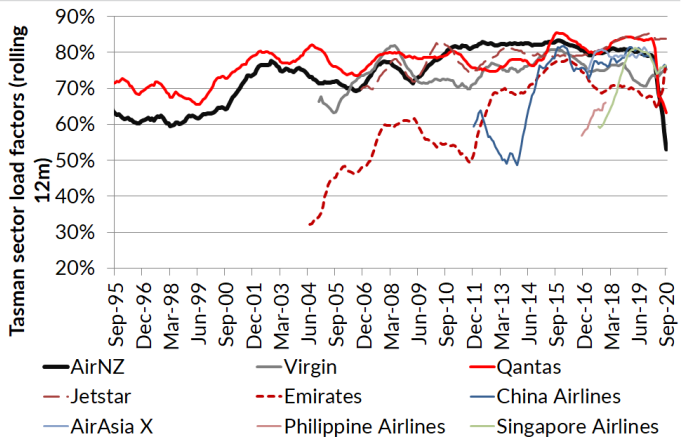
In Figure 28 we show trans-Tasman load factors by airline. Air New Zealand and Qantas have enjoyed the highest load factors in recent years, while fifth freedom carrier (the right to fly between two foreign countries on a flight originating or ending in one's own country) Emirates, the lowest.

Figure 27. Trans-Tasman market share



Source: BITRE, Forsyth Barr analysis

Figure 28. Trans-Tasman load factors (12-m rolling)



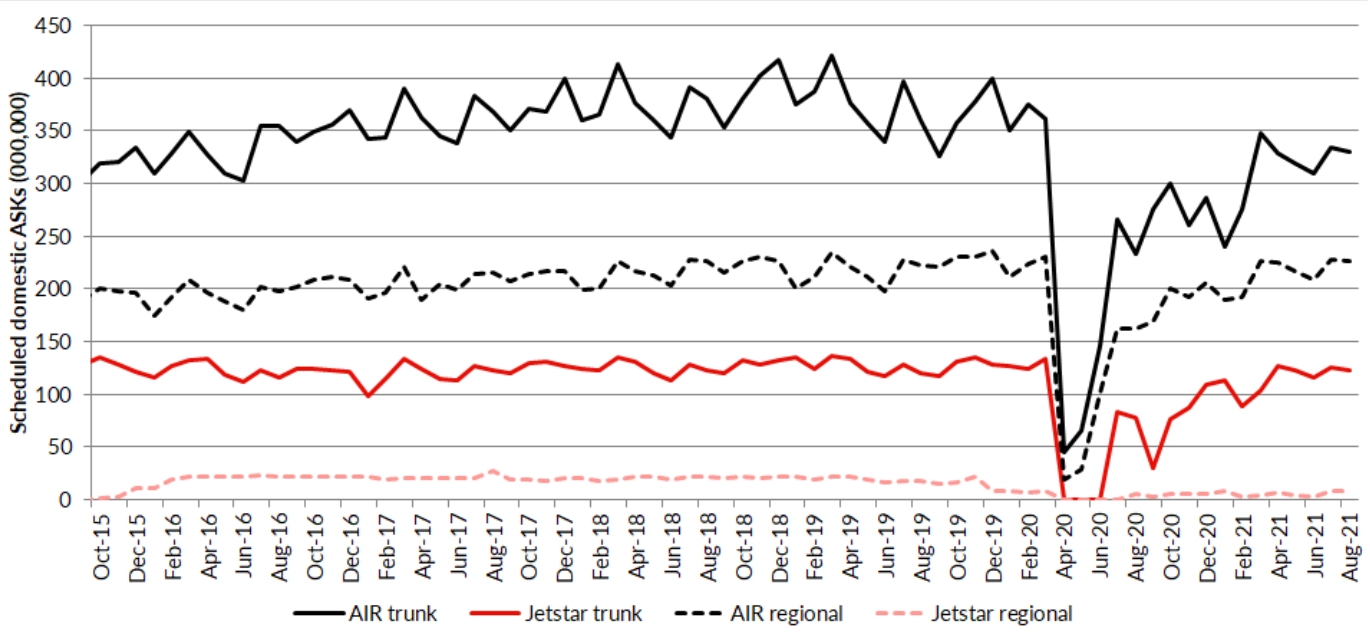
Source: BITRE, Forsyth Barr analysis

Domestic airline capacity outlook

Airline schedule data from OAG provides a picture of the capacity outlook. This is subject to change as airlines constantly amend their schedule to meet demand trends and capacity issues, the data is broadly consistent with capacity guidance issued by key airlines. In light of COVID-19 very little reliance can be placed on the forward schedules at this stage.

In Figure 29 we show the scheduled domestic capacity across both trunk (Wellington, Christchurch, and Auckland) and regional airports for Air New Zealand and Jetstar.

Figure 29. Scheduled domestic capacity growth

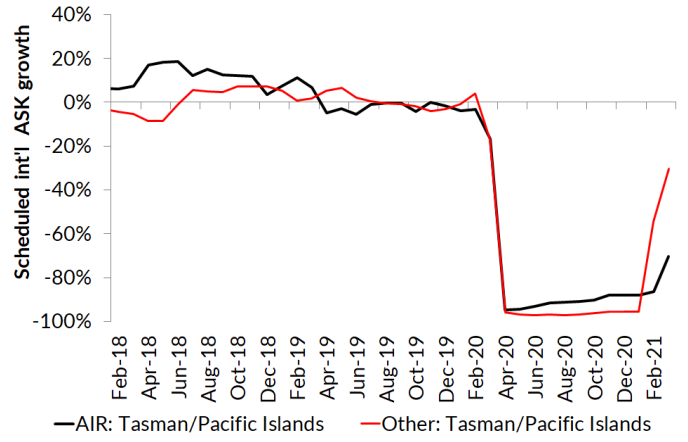


Source: OAG, Forsyth Barr analysis

International airline capacity growth

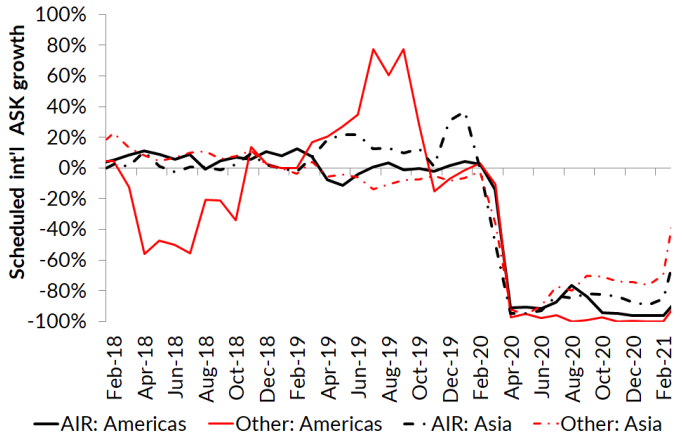
In Figure 30 and Figure 31 we show the scheduled international capacity growth across AIR's international regions.

Figure 30. Scheduled Tasman & Pacific Island capacity growth



Source: OAG, Forsyth Barr analysis

Figure 31. Scheduled long-haul capacity growth



Source: OAG, Forsyth Barr analysis

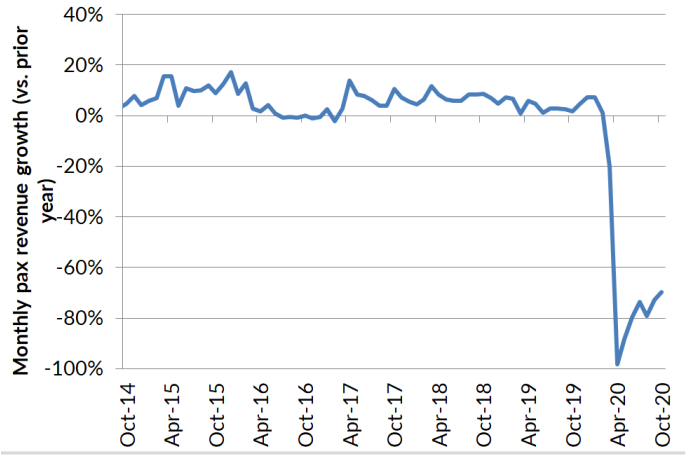
Air New Zealand

AIR publishes monthly operating statistics covering passenger numbers, Revenue Passenger Kilometres (RPK), load factors, and yields.

Revenue growth

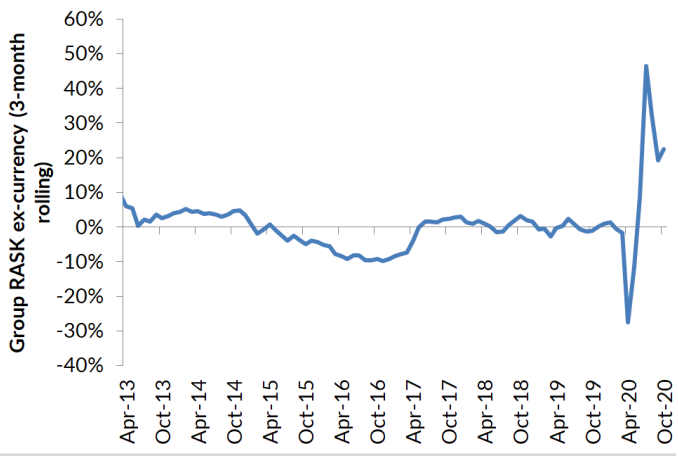
We calculate AIR's monthly passenger revenue growth from its operating statistics releases as shown in Figure 32.

Figure 32. AIR's monthly pax revenue growth



Source: Company data, Forsyth Barr analysis

Figure 33. AIR's RASK growth (constant currency)



Source: Company data, Forsyth Barr analysis

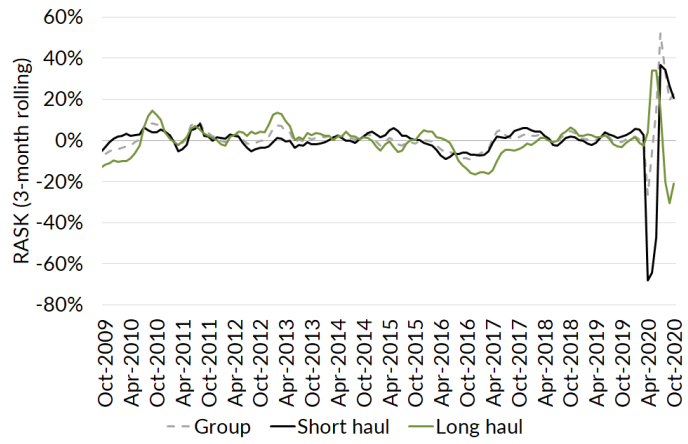
Operating statistics

RASK reflects the amount of revenue generated per ASK (available seat kilometre). Changes in RASK can reflect various drivers of demand and supply.

Long haul and short haul RASK growth are subject to different drivers. Long haul RASKs tend to be more indirectly impacted by oil prices, given the higher proportion of jet fuel burnt on long haul services compared to short haul. In light of COVID-19 capacity and demand issues recent RASK trends have been volatile.

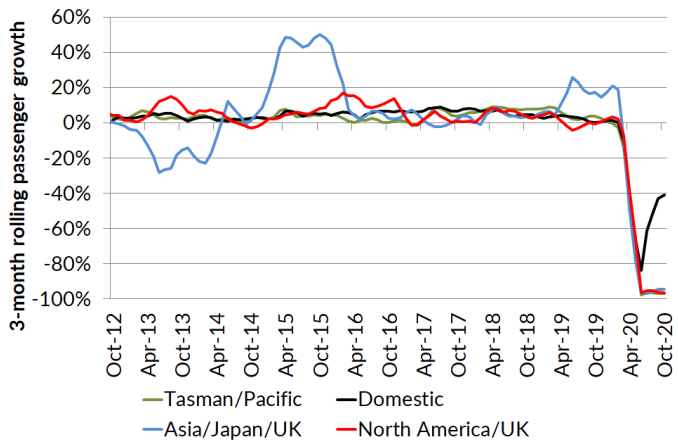
We show in Figure 35 growth in passenger numbers by region for AIR.

Figure 34. AIR's long haul and short haul RASK growth (NZD)



Source: Company reports, Forsyth Barr analysis

Figure 35. AIR's passenger growth (3-month rolling)

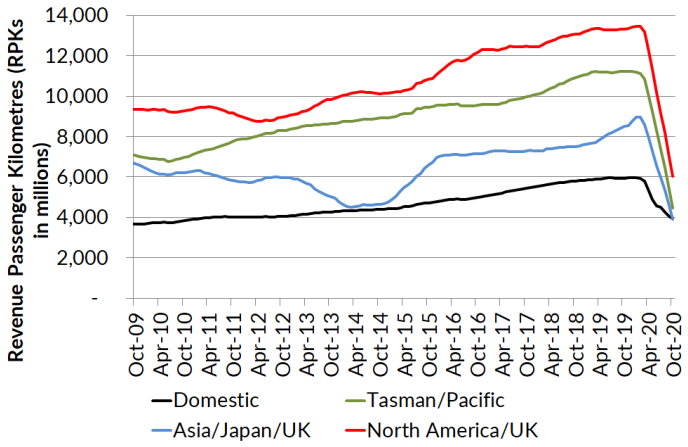


Source: Company reports, Forsyth Barr analysis

Revenue Passenger Kilometres (RPK) is a key measure of output for airlines. In Figure 36 we show the rolling annual RPK for AIR across each of its regions.

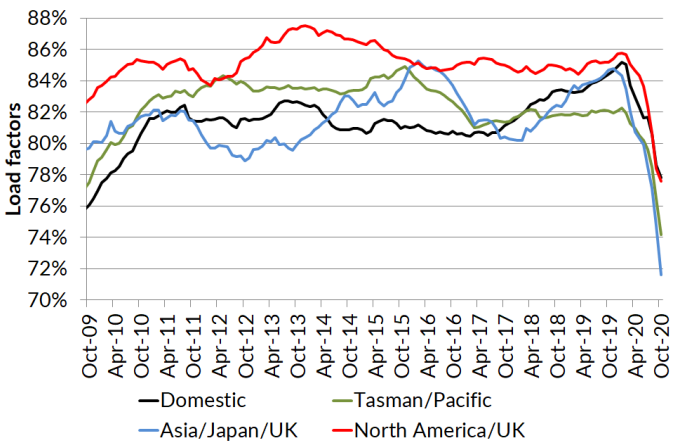
Load factors are a key measure of capacity utilisation. An airline's load factors equates to its RPK divided by its ASK (Available Seat Kilometres). Load factors at AIR have declined as a result of COVID-19 as shown in Figure 37.

Figure 36. AIR's Revenue Passenger Kilometre (RPK)



Source: Company data, Forsyth Barr analysis

Figure 37. AIR's 12-month rolling load factors by region



Source: Company data, Forsyth Barr analysis

Road and rail

Road and rail data is most relevant to freight and courier related operators including Mainfreight (MFT), Freightways (FRE) and TIL Logistics (TLL). It may also be relevant to the ports in light of the competitive dynamics between road, rail and coastal shipping.

Road

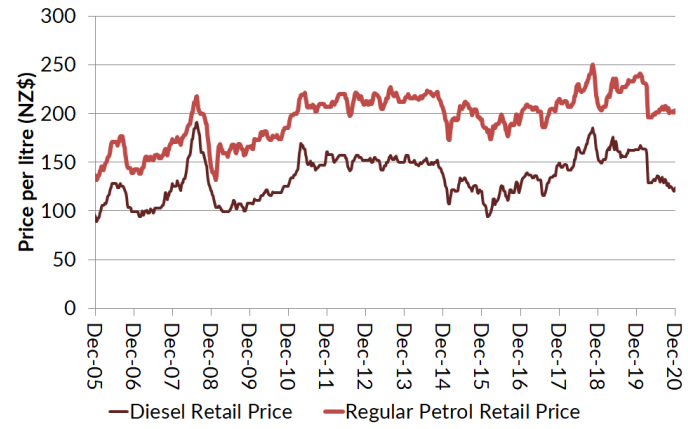
New Zealand retail fuel prices

Fuel price changes are typically passed on to customers via owner-operator models in NZ. Fuel prices may dictate the relative competitiveness of different transport modes.

New Zealand courier fuel surcharges

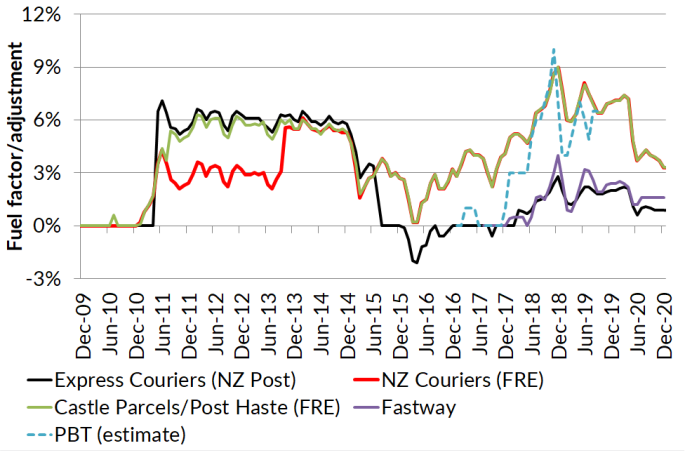
The major courier companies in New Zealand (Freightways and Express Couriers) both charge fuel surcharges on top of their base prices. PBT and Fastway have followed suit in recent years.

Figure 38. New Zealand retail transport fuel costs



Source: MBIE, Forsyth Barr analysis

Figure 39. Courier company fuel adjustment levies



Source: Company websites, Forsyth Barr analysis

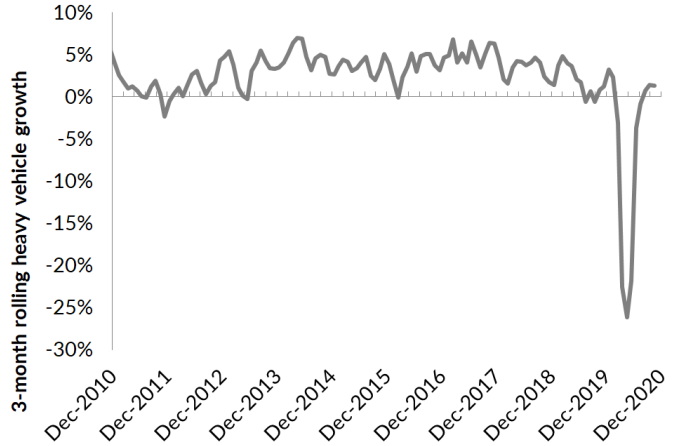
New Zealand heavy vehicle usage statistics

The NZTA publishes monthly data from 118 traffic counting sites throughout New Zealand along main state highways. Heavy vehicles are those categorised as >3,500kg. State Highways account for 10% of roads in NZ but represent 65% of heavy goods traffic.

New Zealand diesel consumption

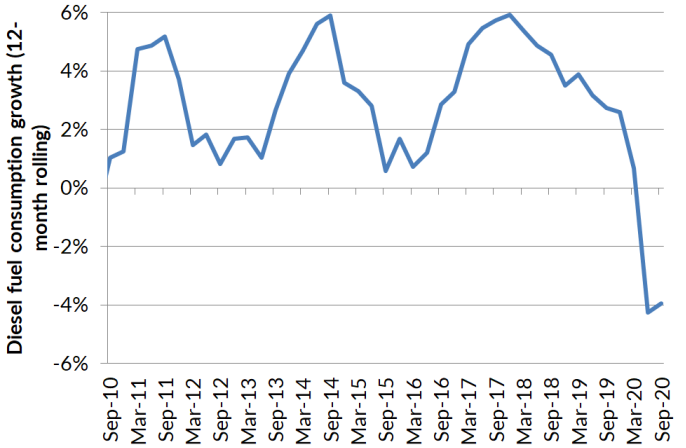
MBIE publishes quarterly fuel consumption data by fuel type as measured by million barrels. Heavy vehicles are predominantly diesel powered and therefore can be used as a reasonable proxy for total heavy vehicle traffic growth.

Figure 40. Heavy vehicle growth on state highways



Source: NZTA, Forsyth Barr analysis

Figure 41. Quarterly diesel consumption growth



Source: MBIE, Forsyth Barr analysis

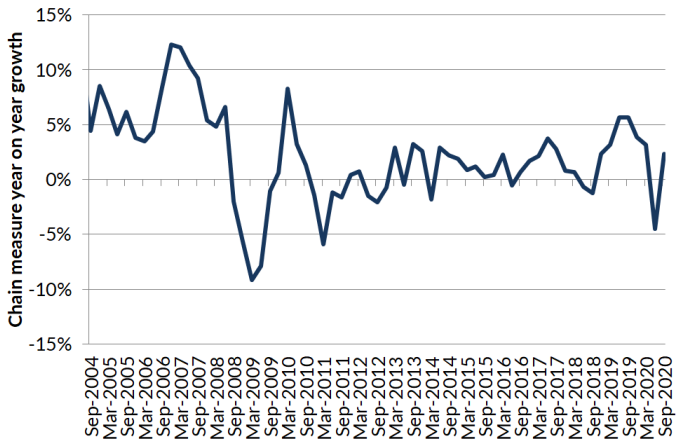
Australia road transport volumes

Timely data on the Australian freight transport industry is limited. In Figure 41 we show the growth profile of the road transport contribution to national accounts on a quarterly basis.

North American freight volumes

The Transportation Services Index (TSI), created by the U.S. Department of Transportation (DOT), Bureau of Transportation Statistics, measures the movement of freight. The index combines data on freight traffic that has been weighted to yield a monthly measure of transportation services output.

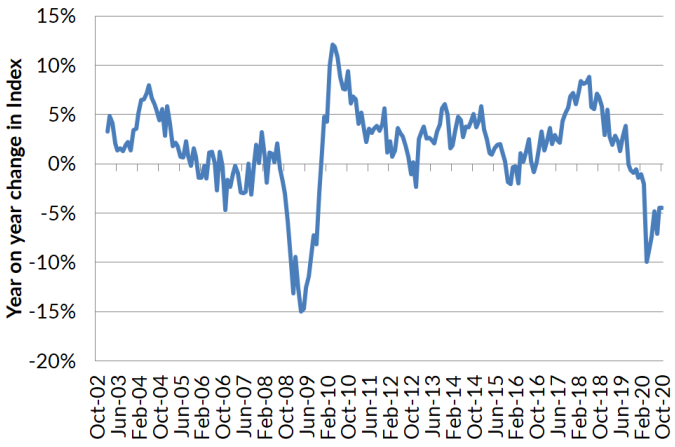
Figure 42. Transport, postal and warehousing national account*



Source: ABS, Forsyth Barr analysis

*Road transport component

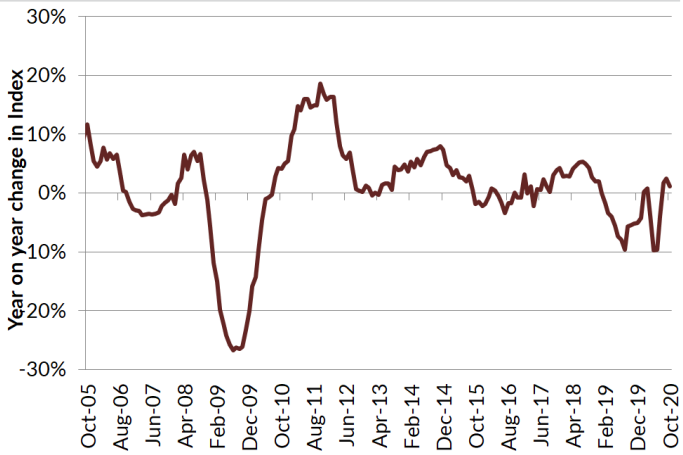
Figure 43. Transportation Services Index



Source: US Dept of Transport, Forsyth Barr analysis

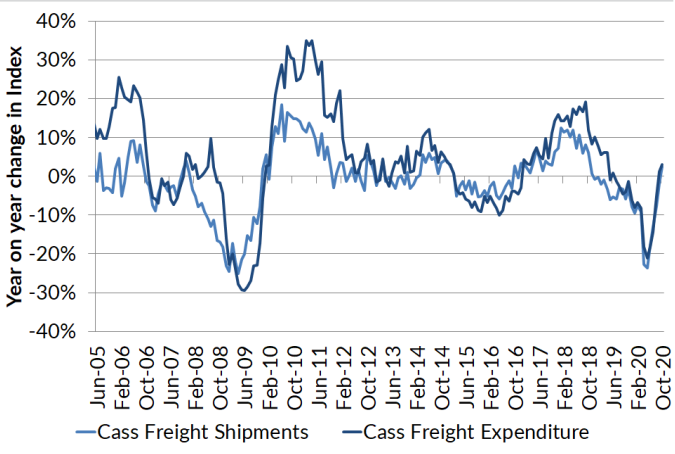
The American Trucking Association (ATA) provides a LTL (less than truckload) tonnage index which encompasses almost 70% of LTL tonnage carried by all modes of US freight transportation, including manufactured and retail goods.

Figure 44. ATA LTL truck tonnage index



Source: Bloomberg, ATA, Forsythyth Barr analysis

Figure 45. Cass freight indices



Source: Cass, Forsyth Barr analysis

The Cass Freight Index is a measure of North American freight volumes. The Index includes all domestic freight modes and is derived from US$22bn of freight transactions processed by Cass annually on behalf of large shippers. These companies represent a broad sampling of industries including consumer packaged goods, food, automotive, chemical, OEM, retail and heavy equipment.

Rail

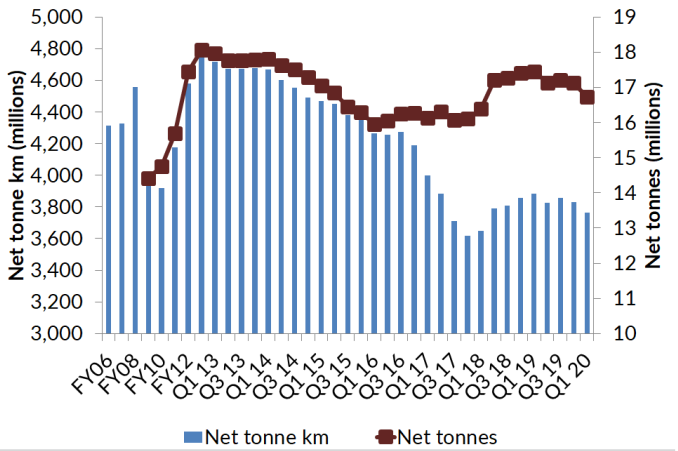
New Zealand rail volume

KiwiRail is state owned. It owns 4,000 kms of track, 198 mainland locomotives and 4,585 freight wagons. It operates around 900 freight trains each week and also owns/leases and operates the three Interislander ferries. The company provides data to the Ministry of Transports quarterly FIGS report. Rail competes with road and coastal shipping in transporting containers throughout New Zealand.

New Zealand rail volume by commodity

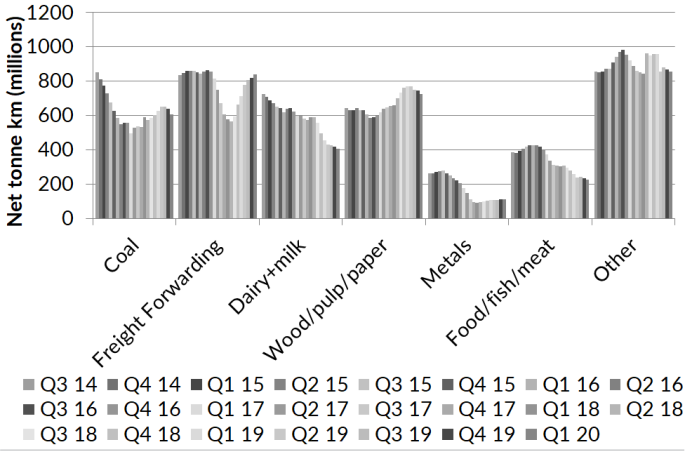
Coal, dairy, and wood products are the three largest commodities transported by rail in New Zealand. Refer to Figure 47.

Figure 46. KiwiRail volume (12-month rolling recent quarters)



Source: Ministry of Transport, Forsyth Barr analysis

Figure 47. 12-month rolling KiwiRail volume by commodity



Source: Ministry of Transport, Forsyth Barr analysis

Ports and shipping

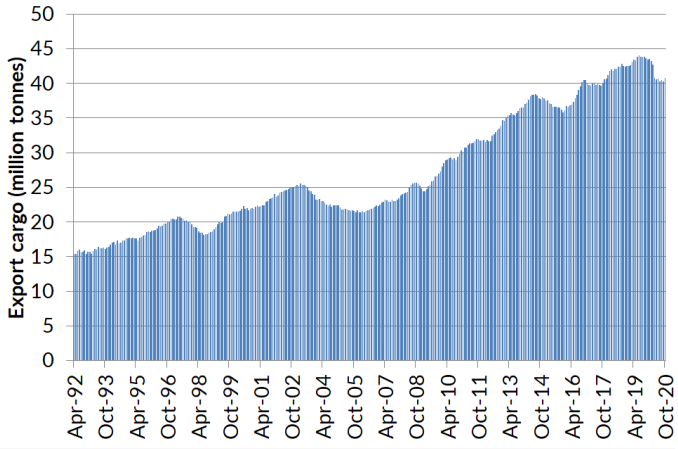
Data in this section is principally relevant to Port of Tauranga (POT) and Napier Port (NPH). It will also be relevant to other port stocks including Marsden Maritime Holdings (MMH) and Southport (SPN).

Ports

Total cargo volumes

Statistics NZ provides monthly cargo data for all New Zealand seaports. We summarise the aggregated export and import data in Figure 48 and Figure 49 respectively. Over the past 25 years exports have grown at a CAGR of +3.9%, compared to imports at +4.0%.

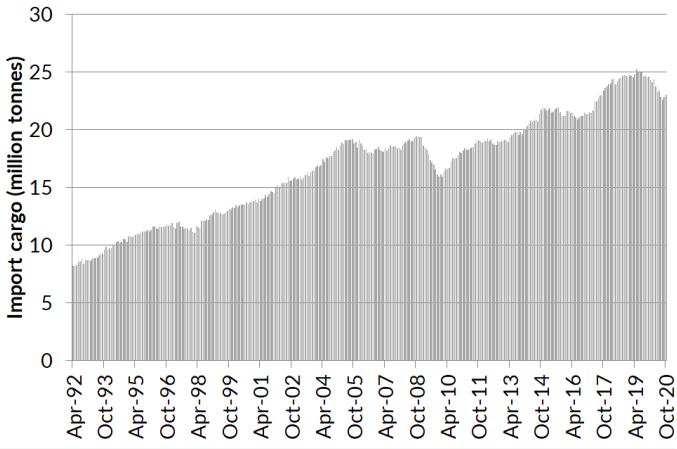
Figure 48. Export cargo volumes (12-months rolling)



Source: Statistics NZ, Forsyth Barr analysis

Note: Data reflects 12-month rolling aggregates

Figure 49. Import cargo volumes (12-months rolling)



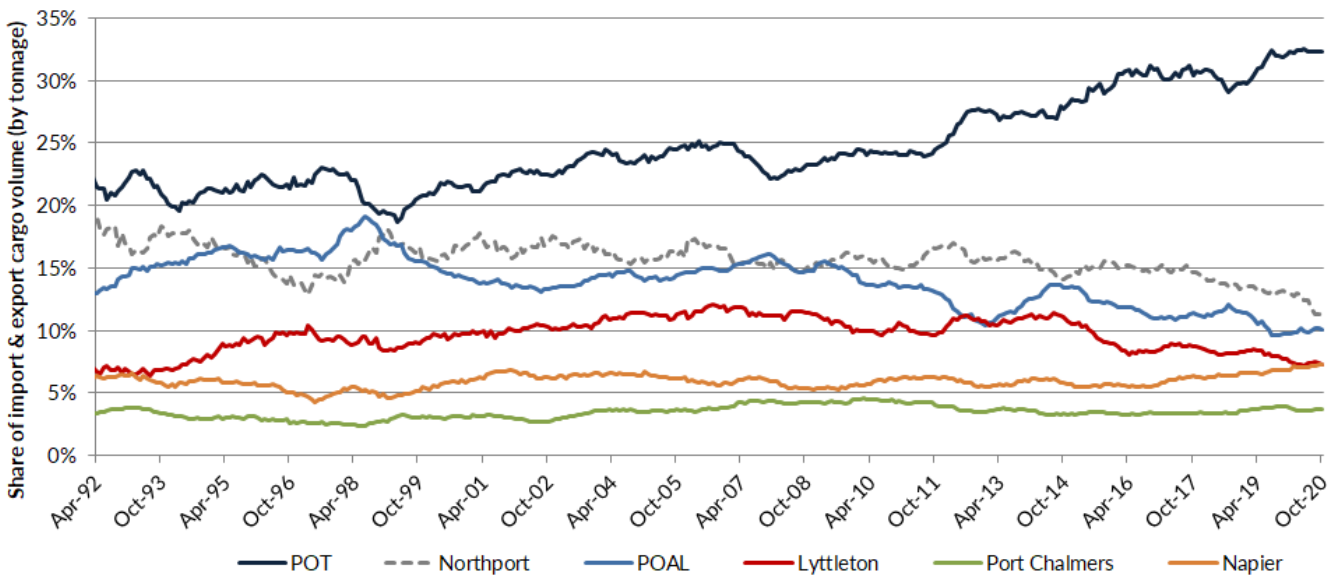
Source: Statistics NZ, Forsyth Barr analysis

Note: Data reflects 12-month rolling aggregates

Share of total cargo volume by port

Port of Tauranga is the largest port in New Zealand. We highlight its historic market share growth in Figure 50. Imports and exports by port are defined by Statistics NZ as the initial port of entry and the final port of loading respectively.

Figure 50. Import and export cargo share (by weight) of leading ports

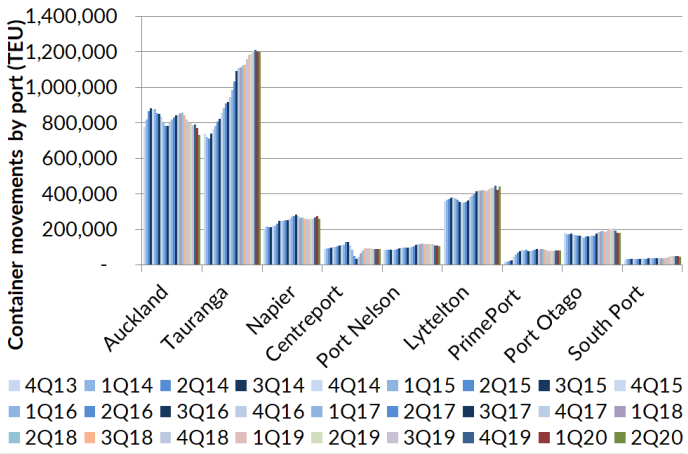


Source: Statistics NZ, Forsyth Barr analysis

Container volumes by port

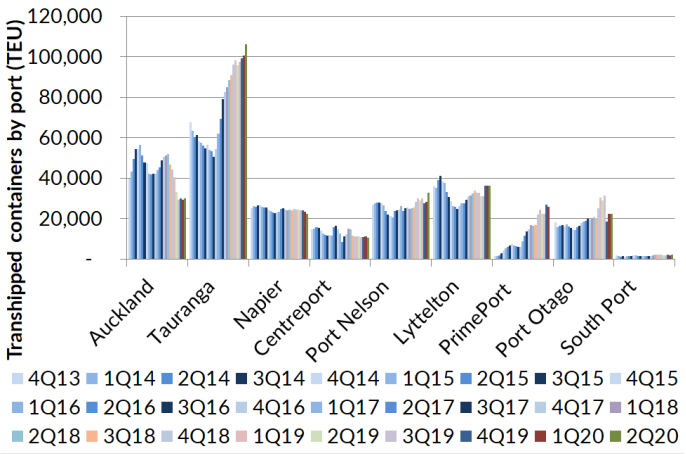
Quarterly container traffic data is available from the Ministry of Transport (MoT). This data is provided to the MoT by each container port. Rolling annual data has only been available since December 2012, which we present in Figure 51. Tauranga is the largest export port for containers, whereas Auckland handles the most import containers.

Figure 51. Rolling 12-month container volumes by port (TEUs)



Source: Ministry of Transport, Forsyth Barr analysis

Figure 52. Rolling 12-month transhipments by port (TEUs)



Source: Ministry of Transport, Forsyth Barr analysis

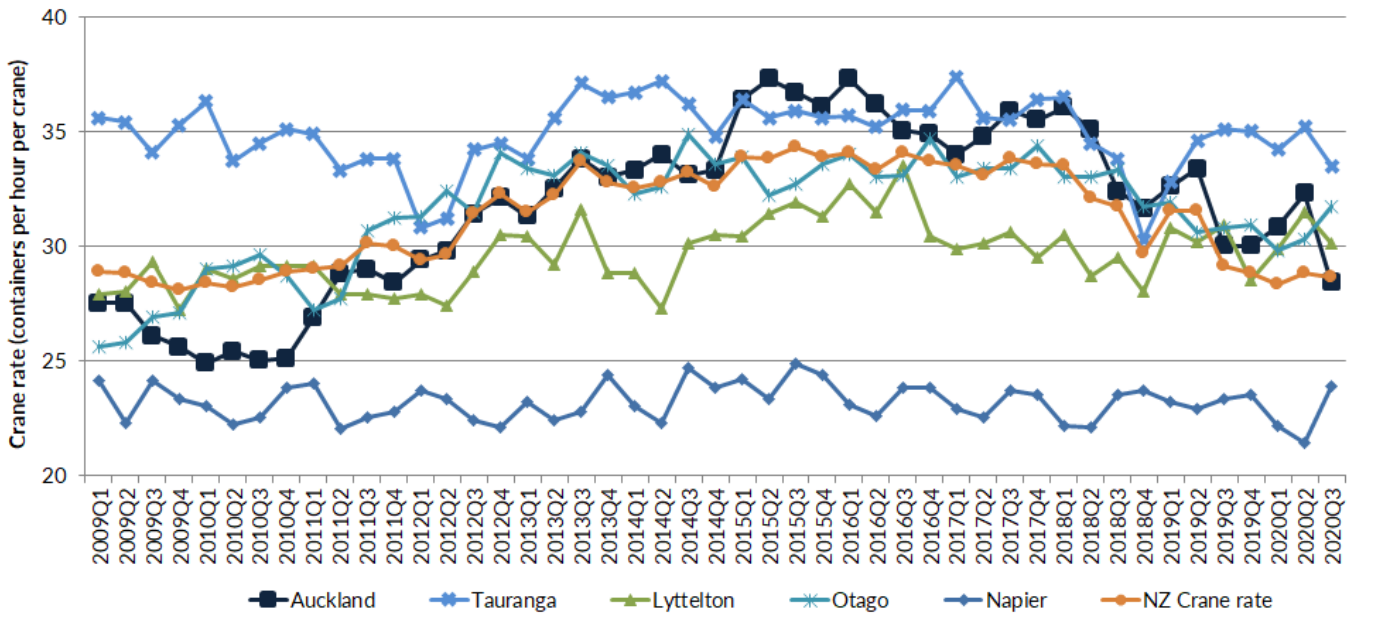
Container transhipments by port

The gradual structural industry shift to a hub and spoke network of ports in New Zealand will drive increased numbers of transhipped containers. Export transhipments reflect containers that are loaded onto a ship at one port, shipped to another port, discharged and then exported via a second ship. Import transhipments reflect containers that are imported and discharged at one port, then loaded onto another ship and shipped to a second port in New Zealand. Tauranga handles the largest number of export transhipments. Auckland handles the highest number of import transhipments.

Container port productivity

The Ministry of Transport compiles port productivity data in its quarterly produced Freight Information Gathering System (FIGS) and Port Productivity Study. In Figure 53 we show the crane rates of the four biggest container ports in New Zealand together with the national average. The crane rate is the best measure of internal efficiency at each port. It measures the number of containers handled as an average per hour for one crane.

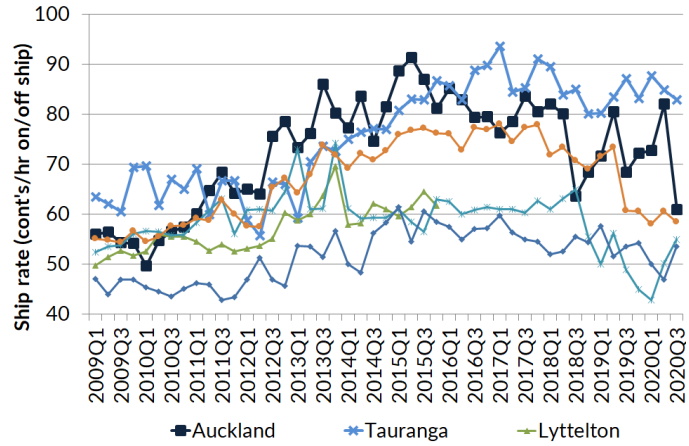
Figure 53. Crane rate



Source: Ministry of Transport, Forsyth Barr analysis

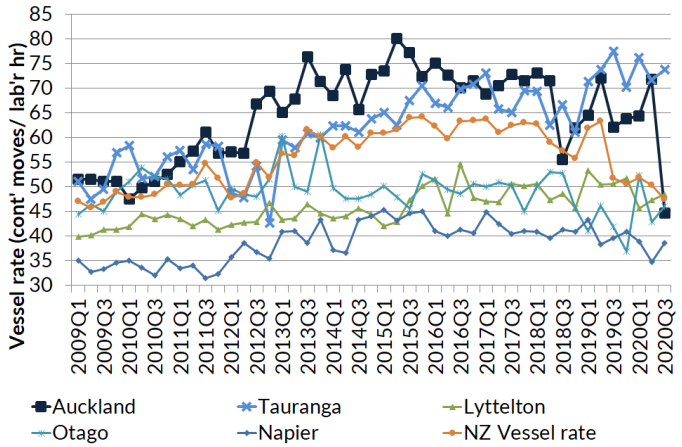
Other measures of port productivity include the ship rate and the vessel rate. These measures reflect the number of containers moved on and off a container ship in (1) an hour (ship rate Figure 54), and (2) an hour of labour (vessel rate Figure 55). The ship rate is the most important measure of port productivity for shipping lines.

Figure 54. Ship rate



Source: Ministry of Transport, Forsyth Barr analysis

Figure 55. Vessel rate



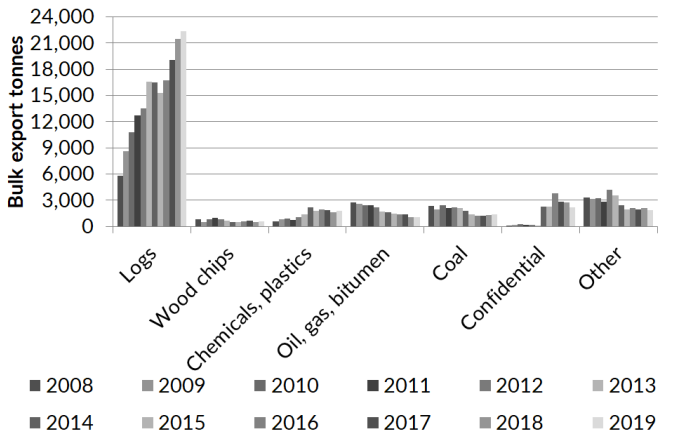
Source: Ministry of Transport, Forsyth Barr analysis

Key exported commodities

New Zealand exports more cargo than it imports. Dairy, meat and other foodstuffs generate the most export value. In contrast export volumes are dominated by wood, and mined commodities (minerals, coal and fuel).

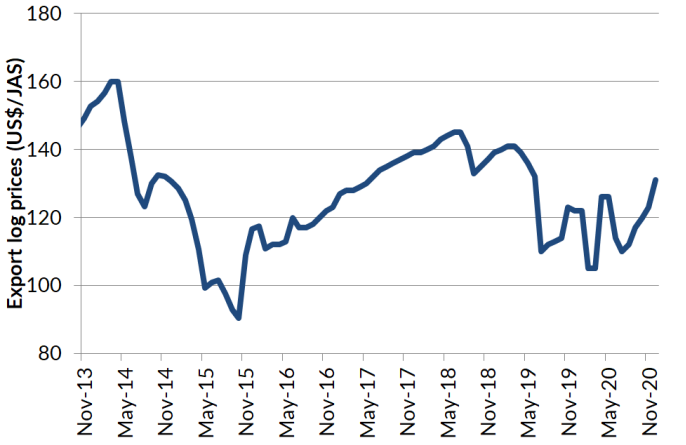
Wood exports are dominated by logs. The industry also exports processed timber, pulp and paper, and wood chips.

Figure 56. Bulk sea export commodities



Source: Ministry of Transport, Forsyth Barr analysis

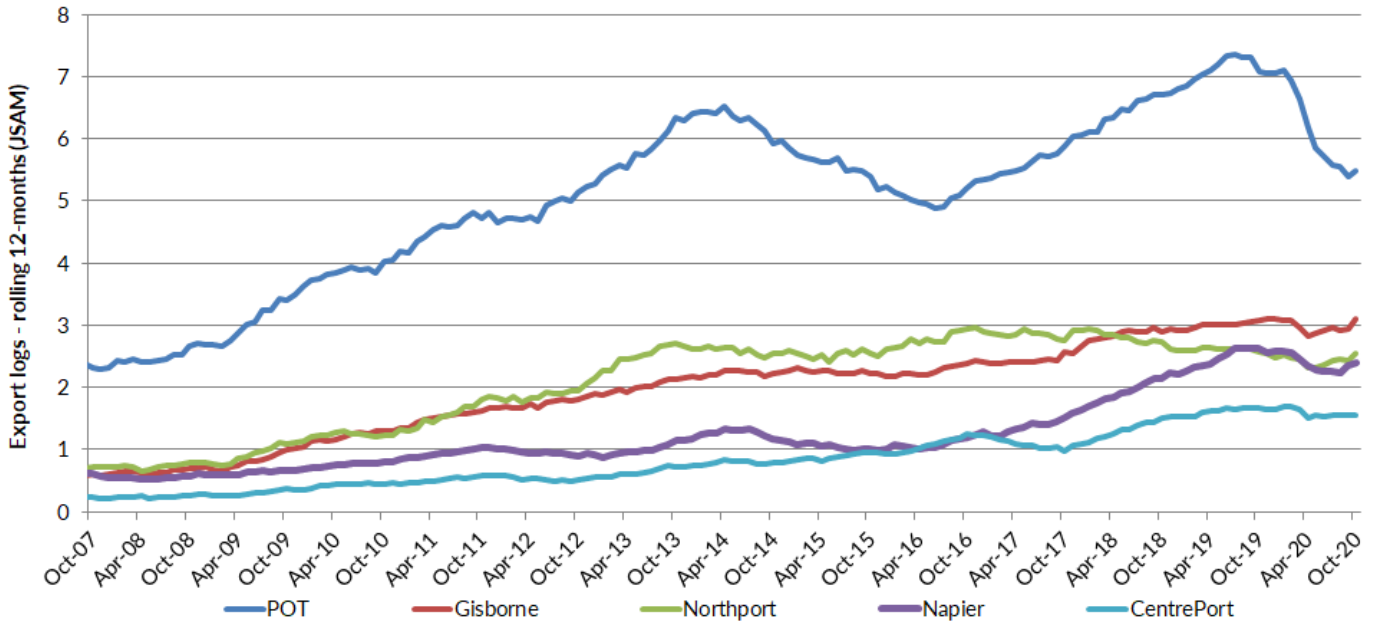
Figure 57. Export log prices (A-grade)



Source: NZX Agrifax, Forsyth Barr analysis

POT (~33% share) is the largest export port for logs in New Zealand followed by Northport (~15% share) and Port of Gisborne (~15% share).

Figure 58. Log exports at leading ports



Source: Statistics NZ, Forsyth Barr analysis

Port of Tauranga

We supplement the data already provided for POT with container services, container movement and log export statistics.

Regular container services

In Figure 59 we summarise regular weekly or fortnightly services at POT providing direct access to Australia, Asia and the Americas. Due to the impact of COVID-19 and shipping industry congestion, some of these services may not be functioning in full.

Figure 59. Regular container services currently stopping at POT

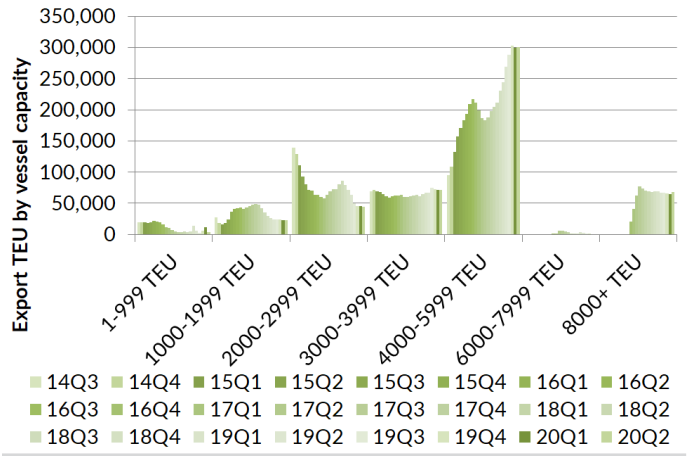
Shipping line	Service	POT code	POT service	Frequency	From	To
Pacifica	CFD	CFD	Domestic	Weekly	Domestic	Domestic
CMA-CGM/PIL/ OOCL/COSCO	China New Zealand Service	AANZ	Export	Weekly	Lyttleton/Wellington/Napier	Hong Kong
Maersk	AC3	AC3	Export	Weekly	South America	Hong Kong
Hamburg-Sud	ANZL (Asia)	ANZL	Export	Weekly	Lyttleton/Napier	Tokyo
MSC	Capricorn	MSC	Export	Weekly	Bluff/Port Chalmers/Lyttelton/Nelson/Tauranga	Tanjung Pelepas
PIL/CMA-CGM	New Zealand Service	NZS	Export	Weekly	Lyttleton/Wellington/Napier	Brisbane/Port Kelang
Hamburg Sud	OC1/Trident	OAES	Export	Weekly	Australia/Chalmers/Napier	Auckland/Panama
ANL	TTZ	TTAZ	Export	Weekly	Lyttelton/Nelson/Wellington	Sydney
NPL	Fiji Feeder	NEP	Import	Weekly	Fiji	Auckland
MSC	New Kiwi Express	KEX	Import/Export	Weekly	Australia/Auckland	Australia
CMA-CGM	Panama Direct Line	PAD	Import/Export	Weekly	Melbourne	Panama
Hapag Lloyd	US West Coast Australasia Loop 2	WAN	Import/Export	Fortnightly	Oakland	Sydney
Hapag Lloyd	US West Coast Australasia Loop 1	WAS	Import/Export	Weekly	Sydney	[Pappeete]/Oakland

Source: POT, Forsyth Barr analysis

Contained movements at POT

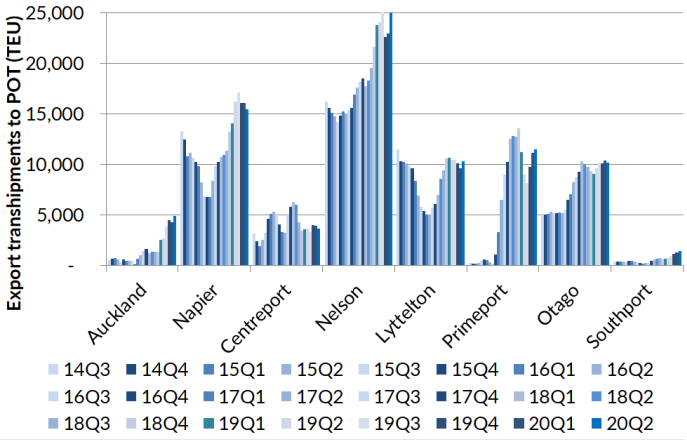
Cargo aggregation at POT was significantly enhanced following the Kotahi deal in 2014. More recently dredging has facilitated 8,000+ TEU ships.

Figure 60. 12m-rolling export TEU by vessel capacity



Source: Ministry of Transport, Forsyth Barr analysis

Figure 61. 12m-rolling export transhipments to POT



Source: Ministry of Transport, Forsyth Barr analysis

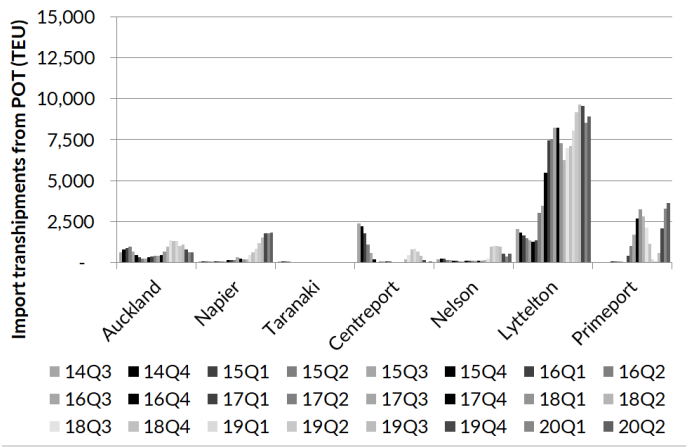
Transhipments at POT

POT operates a hub and spoke model with transhipments a key driver of growth. Further shipping industry consolidation will likely lead to rationalisation of shipping services, which we expect will increase transhipments. Lyttelton (imports) and Nelson (exports) are the largest spoke ports for POT.

Log exports at POT

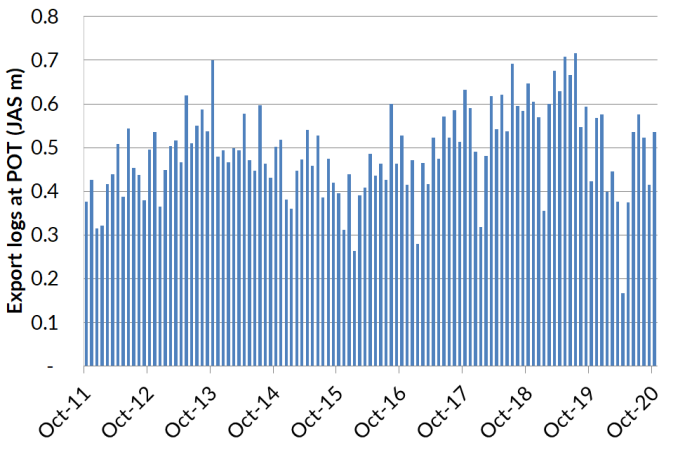
In Figure 63 we show monthly log export volumes through POT using data supplied by NZ Statistics. This data is consistent with the volumes reported by POT in its financial releases. It, therefore, provides a timely and accurate assessment of near term movements in its log export revenues.

Figure 62. 12m-rolling import transhipments from POT



Source: Ministry of Transport, Forsyth Barr analysis

Figure 63. Log exports at POT



Source: Statistics NZ, Forsyth Barr analysis

Napier Port

We supplement the data already provided for NPH earlier with container services, container movement and log export statistics.

Regular container services

We summarise in Figure 64 the regular weekly or fortnightly services that stop at NPH providing direct access to and from Australia, Asia and the Americas.

Figure 64. Weekly container shipping services currently visiting NPH

Shipping line	Service	Frequency	Origin/Destination	From	To
MSC	Capricorn	Weekly	Australia/South East Asia	South Port, Otago, Lyttelton	Tauranga, Auckland, Brisbane
CMA-CGM/PIL	NZ Service/KIX	Weekly	South East Asia	Brisbane, Auckland, Lyttleton, CentrePort	Tauranga, Brisbane
CMA-CGM	ANZEX	Weekly	North Asia	Brisbane, Auckland, Otago, Lyttleton	Tauranga
Maersk	OC1/Trident	Weekly	East Coast North America	Auckland, Sydney, Melbourne, Chalmers	Tauranga, Auckland
Maersk	Southern Star	Weekly	South East Asia	Brisbane, Sydney, Tauranga	Lyttelton, Otago
COSCO	Japan Conference	Weekly	Japan/Korea/China	Lyttleton	Tauranga

Source: Forsyth Barr analysis

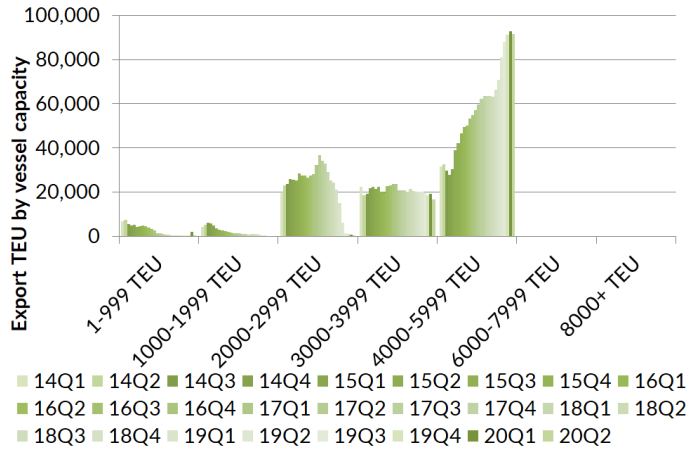
Container movements at NPH

NPH's exports are now really only departing the port on vessels that have capacity of 3,000 TEU or more.

Log exports at NPH

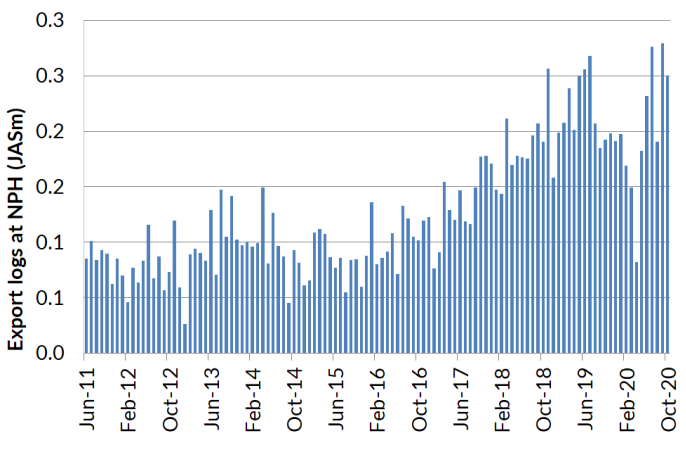
In Figure 66 we show monthly log export volumes through NPH using the same data set as above. This data is on average -9% lower than that reported by NPH in its financial releases.

Figure 65. 12m-rolling export TEU by vessel capacity



Source: Ministry of Transport, Forsyth Barr analysis

Figure 66. Log exports at NPH



Source: Statistics NZ, Forsyth Barr analysis

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