Attachment 24

Economic Impact Assessment
prepared by Market Economics

Extension of Fergusson and Bledisloe Facilities

Economic Impact Assessment

29 January 2025

m.e consulting

Port of Auckland: Extension of Fergusson and Bledisloe facilities

Economic impact assessment

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Executive Summary

This research by Market Economics Ltd (ME) has examined the potential economic impacts of two major proposed infrastructure developments on the Port of Auckland, the Fergusson North extension and a new wharf at Bledisloe North terminal.

The project is a listed project on Schedule 2 of the Fast Track legislation. That puts the focus not on the rationale for being on the list, but on the effects of putting the project in place '*on the ground*' to realise those benefits, even though the same assessment informs both matters.

In broad terms, there are two sets of benefits. One set relates to the performance of the Auckland economy going forward, as the project will help deliver a more efficient Port, supporting its roles through trade and tourism into the future. The other set relates to the freeing of space on the Marsden and Captain Cook wharves as the project will eventually enable the transfer of these wharves to Auckland Council for public use.

The report analyses the roles of the Port in the economies of Auckland and other regions in New Zealand, delineating between its roles as an entity, a facilitator of trade and as a hub for cruise tourism. The Port is integrated into New Zealand's economic landscape and its role is expected to grow over time as economic growth continues. We analyse trade in the New Zealand and Auckland economies, showing how patterns have followed global trends and highlighting nuances for New Zealand. Having access to global markets is essential for New Zealand's economy to thrive.

Our principal conclusion is that the "*the project will have significant regional or national benefits*", meaning it meets the overall purpose of the Fast Track legislation. This finding is consistent with the Port's established critical place in the Auckland region and national economy, and with the nature of the project which aims to improve the Port's capability and efficiency.

Using an in-depth analysis of the Port's role and trade flows in the economy, Market Economics has quantified the effects of this project in terms of contribution to the regional and national economies. Impacts are particularly substantial for Auckland given the Port handles the major share of imports destined for the region. This enables and facilitates a large share of the Region's economic activity and sustains employment across most industries.

The findings confirm results from earlier studies which have showed the Port's critical roles in the economy, especially for import trades which sustain business activity and employment. In 2023, the Port directly sustained and facilitated value added (GDP) of $14.4bn (9.7% of the Auckland region's total) and employment of 101,400 MECs (10.4% of the region).

The project will extend and enhance the Port's capabilities to continue performing these key roles in the regional and national economy. The effect and contribution will increase over time as the economy grows and there are increasing demands on the Port to support that economic growth. The project will have widespread influence on most aspects of the Port's operation and can be expected improve its contributions to economic vitality in Auckland and beyond.

The research findings show large contributions to the economy over the next 30 years. Our estimates of the real present value of these benefits to the Auckland economy range from $1.8bn to $5.4bn of value added. For the whole New Zealand economy, our estimates range from $2.5bn to $6.6bn. The ranges reflect differences in the share of additional value added which may be directly attributed to the project. The

approach taken to reach these findings has been deliberately conservative, with a view to making the findings as robust as possible, in recognition of the importance of the objectives of the Fast Track legislation.

We note that these findings of large contributions to economic activity and employment are entirely consistent with the nature of such projects, and with the established major roles of the Port in the economy.

In addition, the project will have a strong positive contribution to the economy through the functioning of the central city and the wider benefits to the Auckland community, by enabling the eventual transfer of the Marsden and Captain Cook wharves to Auckland Council for public use.

Overall, the project will make significant positive contributions to the economy into the long term by supporting and enhancing the performance of a very substantial part of the economy.

1 Introduction

1.1 Objective

This economic impact assessment has been prepared by Market Economics (M.E) to support a consent application made by Port of Auckland Limited (POAL) under the Fast Track Approvals Act 2024. The application is for a new Bledisloe North Wharf and an extension to Fergusson North Wharf, located within the Port of Auckland on the Waitemata Harbour. The project seeks to enhance and increase the Port's capacity, capabilities and efficiency.

The economic effects of the proposed development are a critical aspect of securing approvals under the Fast Track Approvals legislation. The project is on the announced list of projects, included in Schedule 2 of the Act. The focus is on the economic effects of the project.

This report presents a comprehensive assessment of the effects on the Auckland and New Zealand economies. That is, in the contexts of the Port as a major economic entity in its own right, and of the economic activity that is enabled and supported by the Port, through flows of imports into the country, and exports to markets across the world. We analyse the Port's core roles in sustaining economic activity through flows of goods and people, and its function as a direct interface to connect the Auckland economy with the rest of New Zealand and other world economies. It also examines the effects of the freeing of space in the Port, and enabling the transfer of the Marsden and Captain Cook wharves to Auckland Council for public use.

The Fast Track Approvals legislation seeks to facilitate and prioritise those projects which are expected to deliver significant regional or national benefits. It recognises that securing consents for new developments is often resource-intensive and time-consuming, particularly for multi-faceted developments such as port facilities, which are at the land-sea interface and have considerable potential for substantial, long-term direct and flow-on effects. The legislation recognises the importance of timeliness and certainty for projects poised to deliver major benefits. Prioritising such projects can unlock potential throughout the economy.

1.2 Overview

In that context, this report provides a comprehensive assessment of the economic effects and implications of the proposed project. It addresses the Port's roles as the entry point for imports and exit point for exports, highlighting the role of imports for inputs into production and for enabling household consumption. It also analyses the Port's role as a lynchpin of New Zealand's cruise trade and the tourism sector. The flows and activity enabled by the Port are critical to the economies and communities around New Zealand, particularly in the upper North Island.

The proposed project will provide additional capacity and efficiencies for the Port into the long term. This includes to help ensure that the Port's capacity for trade and tourism activity not just keeps pace with continuing economic growth, but also extends the opportunity for further diversification in the economy.

In addition to the economic effects arising from the Port operation itself, we analyse wider implications for the economy. These are more than the direct and flow-on effects of the Port as a major hub of economic activity facilitating how the economy functions. Benefits also arise because this critical infrastructure is in

place, and that in itself is a core requirement for an integrated and comprehensive regional economy. Significant decisions on investment, development and location choices by the private and the public sectors are made on the basis that Auckland is a large, well-functioning and connected economy, which has major seaport and airport infrastructure.

The Port of Auckland is one of the two primary seaports in New Zealand alongside the Port of Tauranga, which both play distinct roles within the New Zealand economy. While the Port of Auckland dominates in terms of value of imports, the Port of Tauranga facilitates the largest value of exports. These differences can be attributed to several factors, but geography plays a major role. Located in the centre of Auckland, the Port enables the efficient delivery of imported goods to their end or intermediary uses within Auckland. It is also a major hub for cruise tourism because of its location, immediate access to the City as a tourist destination, offering amenity and supporting infrastructure. By contrast, Tauranga is a suitable location for many of New Zealand's major export flows from the regional economies including as dairy, meat, wood products and wine.

The Port is a significant entity in central Auckland, as a hub of trade activity and tourism activity. Its location adjoining the CBD is important especially for the cruise tourism industry, with the immediate accessibility of the city centre. The Auckland waterfront is a major destination for the resident population and the central city workforce, and the potential to extend that waterfront through the transfer of the two wharves is an important outcome of the project, which is additional to the effects on trade and the business economy.

1.3 Fast Track Approvals Act

The Fast Track Approvals Act seeks to facilitate the delivery of infrastructure and development projects with significant regional or national benefits. Two aspects are critical:

a. Tracking of the roles and effects of any project through the economy so that the implications of the proposed developments are clearly understood, both for the region and the nation; and
b. Measurement and documentation of those roles, to establish the significance to the economy, directly and more widely.

The potential for a broad contribution to the economy reflects the core roles of the Port in the regional and national economy, and the potential for the proposed project to contribute directly to those core roles. That said, the main focus of this assessment is the project's contribution to significant infrastructure and delivery of significant economic benefits. The wider and related effects and contribution to the region's planning strategies will arise as a consequence of the project's effects on the core roles of the Port.

1.4 Report Structure

The Report is structured with 6 content sections.

- Section 2 summarises the Project.
- Section 3 provides background detail and data on the economics relating to the Port and its operations. This includes a focus on Auckland, the importance of trade for New Zealand's economies, global trade and New Zealand's role within that system, the role of ports, and the economics of the cruise sector.

- Section 4 contains our estimates of the Port's economic contribution, focussing on GDP and Employment impacts. This covers the role of its operations, as a facilitator of trade and of the cruise sector.
- Section 5 relates the economic contribution of the Port and the proposed project.
- Section 6 is our concluding remarks.
- Section 7 contains several technical annexes. These provide additional detail and analysis to supplement the content in the report.

2 Bledisloe North Wharf and Fergusson North Berth Extension

2.1 Overview

Port of Auckland plans to build a new 330m long and 27.5m wide Wharf at the northern end of the Bledisloe Terminal and extend the Fergusson North Berth by an area of 45m x 34m. This project will streamline operations at the Bledisloe and Fergusson terminals and eventually enable the transfer of Captain Cook and Marsden Wharves to Auckland Council for public use. The new Bledisloe North Wharf will handle multi-cargo vessels, relocate roll-on/roll-off (RORO) operations from Captain Cook Wharf, and support cruise ships over 300m long. The Fergusson extension will allow quay cranes to fully access the berth, obviating the need to reposition ships during loading, thus saving time and avoiding impractical loading restrictions. Additionally, a new cruise passenger terminal is proposed within the existing vehicle facility at Bledisloe Terminal, with upgraded access from Tinley Street.

2.2 Benefits of the Project

The project will enable an array of improved port operations which are summarised below.

2.2.1 Capacity improvement

- Increased Handling Capacity and Efficiency: The new Bledisloe North Wharf and the extension of Fergusson North Berth will increase the port's capacity to manage large container and cruise ships. This will include handling larger cruise ships (over 300m in length) at the new Bledisloe North Wharf and handling 10,000 TEU container ships at Fergusson North with improved efficiency. Accommodating larger vessels (up to 10,000 TEU) more efficiently Ais vital given the global trend of increasing vessel sizes and New Zealand’s ambition within the world’s trade network.
- Roll-on roll-off (RORO) and Cruise Operations: The Bledisloe North Wharf will specialise in handling multi-cargo vessels including the relocation of RORO operations from Captain Cook Wharf, enhancing the port's capacity to manage diverse maritime activities efficiently

2.2.2 Operational Efficiency Gains

- Improved Cargo and Passenger Flow: By enabling full-length access to container ships at Fergusson North, quay cranes can operate without the need for repositioning ships, thus streamlining the loading and unloading process. Similarly, the new Bledisloe North Wharf will facilitate smoother operations for RORO and cruise vessels, reducing turnaround times.

- **Conflict Reduction at Princes Wharf:** Relocating larger cruise ships to Bledisloe North Wharf will reduce the size of ships at Princes Wharf, decreasing potential conflicts with passenger ferries and thus avoiding delays.

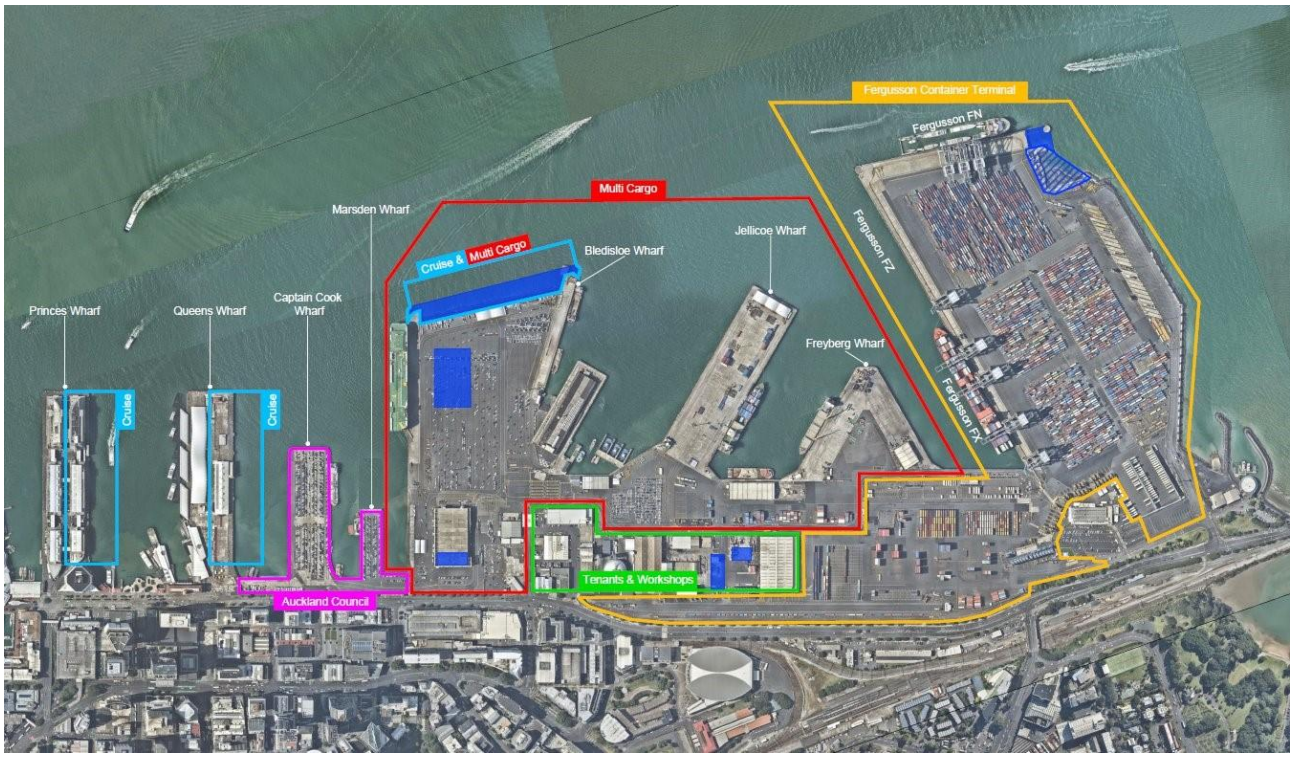
2.2.3 Strategic Redevelopment:

- **Wharf Transfer:** The relocation of RORO vessels will enable the future transfer of Captain Cook and Marsden Wharves to Auckland Council for public use, promoting better utilisation of waterfront space for the public, enhancing the overall utility and accessibility of the waterfront area.

2.2.4 Long-Term Strategic Benefits:

- **Economic Impact:** By upgrading infrastructure and enhancing operational capacities, the Port of Auckland is set to further increase its own economic performance and benefit, and its contribution to the regional and national economy. This development supports Auckland's growth as a key maritime hub and boosts its global competitiveness.

Figure 2-1 – Proposed Project in Context – POAL 30-Year Masterplan



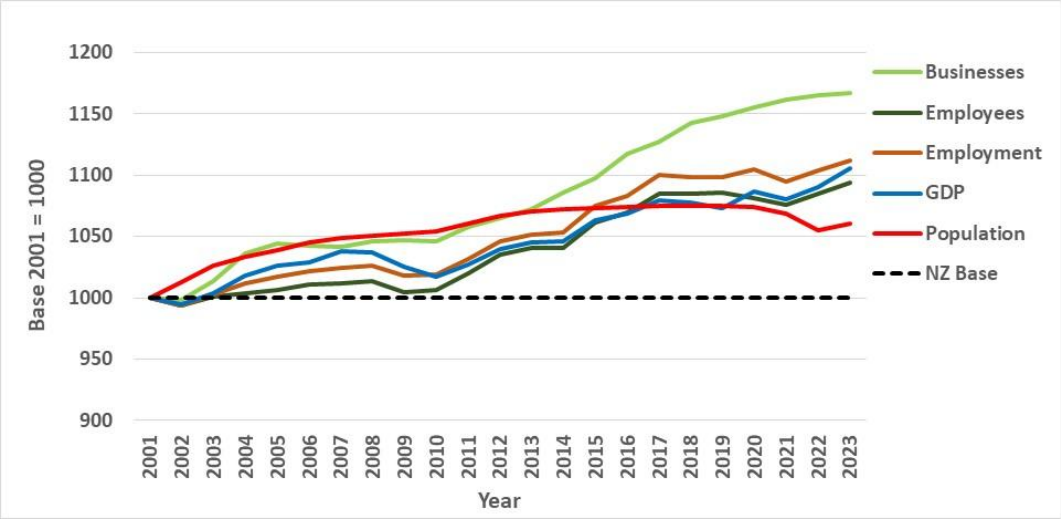
3 Economic Context

This section sets out the economic context of the Port and the Port sector. To understand how specific infrastructure projects will affect the economy, it is important to consider the role of trade in the global and national economies, and to recognise how ports facilitate interactions between economies in the form of trade flows. Many parts of New Zealand's economy rely on the income generated by export trades, particularly in primary production industries. Similarly, the import of overseas materials and goods is essential for a large share of business activity and household consumption. Cruise tourism also contributes significantly to many regional economies, providing stimulus through consumer spending. This section analyses these roles in detail, applying regional and macroeconomic lenses to elucidate the role of ports, trade and the downstream benefits.

3.1 Auckland in the New Zealand Economy

Auckland's economy has achieved consistent economic growth over the long term. One fundamental driver of this growth is Auckland's resident population, which has expanded at a rate faster than the New Zealand average for more than a century. The regional economy continues to grow ahead of the national trend, with employment and regional GDP growth consistently outpacing the rest of New Zealand. Figure 3-1 shows Auckland's growth relative to total New Zealand since 2001. On core indicators – business count, total employment, paid employees, GDP and population – the region's growth has been well ahead of the rest of the country. The graph also indicates the relative strength of Auckland since the downturn of the GFC in 2008.

Figure 3-1 – Auckland cf New Zealand Population and Economy 2003-23



Economic growth in Auckland is expected to continue over the coming years. The core indicators – population, employment and business – are all expected to grow by between 30% (medium future) and around 50% (high

future) in the 30 years from 2023 to 2053.[1] This anticipated growth will deliver considerable opportunity, while also placing additional demands on all the core infrastructure and services in the city, including the Port.

3.2 Trade in the Economy

International trade is a core part of the New Zealand economy. The outward orientation of New Zealand's industry provides access to large global markets which enables businesses to thrive despite the relatively small size of domestic markets. This access also allows New Zealand businesses to diversify their income streams and help mitigate the risks of reliance on domestic demand and the associated economic cyclicality.

Population growth and GDP growth have a significant bearing on both the scale and scope of trade. They are responsible for higher levels of consumption and greater demand for imports, including both finished goods and those requiring imported raw materials or intermediate goods for domestic production. As GDP rises, disposable incomes also tend to increase, enabling more consumer spending and demand for greater diversity in consumer goods. At the same time, as domestic businesses expand, there is a natural progression towards exploring and accessing overseas markets. The result is expanded export activity.

Conditions for trade vary by region and sector. Auckland is the largest domestic market and, for many exports which are not dependent on primary processing, acts as a major hub for import trades to service the region's 38% share of business activity and 34% share of the country's consumer demand. Other smaller district and regional economies rely on the distribution network from Auckland to obtain their consumer good imports, as well as export routes through Auckland. The economies of other regions such as Waikato, Bay of Plenty, Taranaki and Canterbury, are more export-driven, with substantially larger primary processing sectors and much smaller populations than Auckland. The success of their export trades is closely tied to their ability to reach international markets efficiently through strategic transport links and efficient access to port facilities. This structure has seen the Port of Auckland focused more heavily on import trades to serve the domestic population and businesses, with other ports including the Port of Tauranga with a stronger concentration of export trades.

3.3 Global Trade

Global trade has expanded significantly over the last two decades, driven by liberalisation of trade policies and the ongoing integration of markets and supply chains. Figure 3-2 and Figure 3-3 summarise data from the World Trade Organisation (WTO) of total merchandise trade values between 2005 and 2023[2].

New Zealand's imports have exceeded exports for the past 2 decades. However, after narrowing from 2008 – 2014, the gap has been growing. The annual average increase of 2.6%pa in total trade, and 3.3%pa in imports, points to the increased pressure on the port sector, particularly in Auckland, where the majority of imports enter New Zealand.

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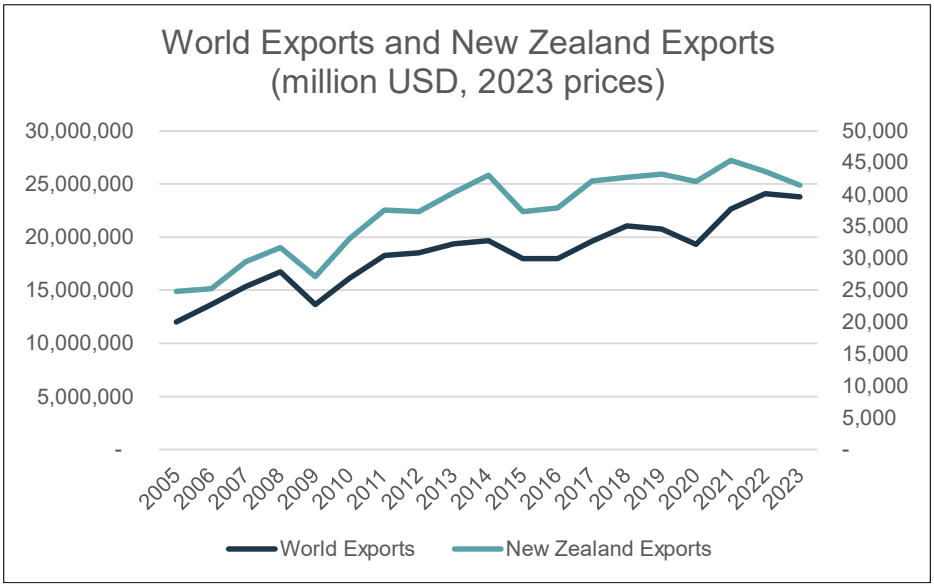
[1] Business and Housing Capacity Assessment (HBA) prepared for Auckland Council, 2023

[2] World Trade Organisation (WTO) Stats Dashboard. Price indexes are only available from 2005 enabling conversion into real prices. Import values are reported as Cost, Insurance and Freight (CIF) and export values as Free On Board (FOB), in line with the standard international definitions. This excludes trade in commercial services as these are not directly relevant to the operations of New Zealand's ports. For effective comparison through time, all values have been re-based to be shown in 2023 prices.

New Zealand's trade flows have followed a similar pattern to the global trends, dipping slightly because of the Global Financial Crisis (GFC) and Covid-19, but trending upwards throughout the period. Globally, trade has doubled in value from US$12 trillion to US$24 trillion between 2005 and 2023. However, during that period New Zealand's share has fallen. In 2005, New Zealand exports represented 0.21% of the global total; in 2023 its share was 0.17%.

Figure 3-2 – New Zealand Merchandise Trade Values

Figure 3-3 – World Exports vs New Zealand Exports



3.4 Accessing global markets

Access to global markets is an essential component of production and consumption for industries throughout New Zealand. Many businesses rely on imported products as inputs, either because New Zealand cannot produce these products domestically, or because it is at a competitive disadvantage to do so. In many cases, imports supplement domestic supply. Trade links connect New Zealand to a global supply chain and customer base, helping its businesses to specialise in the areas where they can add maximum value. This helps efficiency and productivity gains for New Zealand's industries, with positive effects for international competitiveness, as well as for domestic prices. The ability to trade on an international scale stimulates business activities, which creates jobs and stimulates growth.

The evolution of maritime technology, particularly the trend towards larger cargo ships, necessitates infrastructural adaptations at major ports. Larger vessels are becoming the standard for global trade due to their efficiency and cost-effectiveness. These ships benefit from economies of scale, reducing the cost per container and thus the overall shipping costs for importers and exporters. New Zealand's ports must adapt to efficiently accommodate these larger vessels to avoid becoming a bottleneck in the supply chain and to retain New Zealand's position as a trade partner to the world. If the Port of Auckland cannot regularly and efficiently accommodate larger cargo ships, there may be a shift in shipping routes and supply chain logistics to more capable regional ports. The Port's proximity to the industries which rely on it means that such changes would hamper New Zealand's economy. This shift would likely raise costs for local exporters and importers, reduce trade competitiveness, and ultimately inflate the prices of goods and services in New Zealand.

Moreover, given New Zealand's relative geographic isolation, travel and shipping distances to major global markets are already significant, which increases transport costs and logistical complexities. Having infrastructure that can deal with all ship types will mitigate some of these disadvantages and reduce frictions with global markets.

As global shipping technology advances, the infrastructure at the Port needs to evolve accordingly. This includes not only physical expansion but also upgrades to handling equipment, digital systems for logistics management, and environmentally sustainable practices to align with global standards. Investing in new wharf capacity is a strategic move to ensure long-term competitiveness and bolster New Zealand's trade profile on the global stage.

3.5 Ports in the economy

The Port of Auckland is one key node within New Zealand's port network. Each port plays a unique role within the national and regional economies, handling different mixes and values of products, vessels, types of goods flow (import vs export vs domestic) and passengers. As such, ports are both reflections and determinants of the economies they serve. Much of their role is functional to enable the flows of goods and passengers and interactions among economies. Some also have roles as major cruise ports, which is based on the appeal to visitors of the city and proximate destinations.

The primary route for goods to enter and exit New Zealand is through seaports. They manage diverse cargoes and have distinct advantages over airports for bulk commodities, heavy equipment and other products that are impractical for air freight due to size, weight or other cost considerations. Seaports facilitate the docking

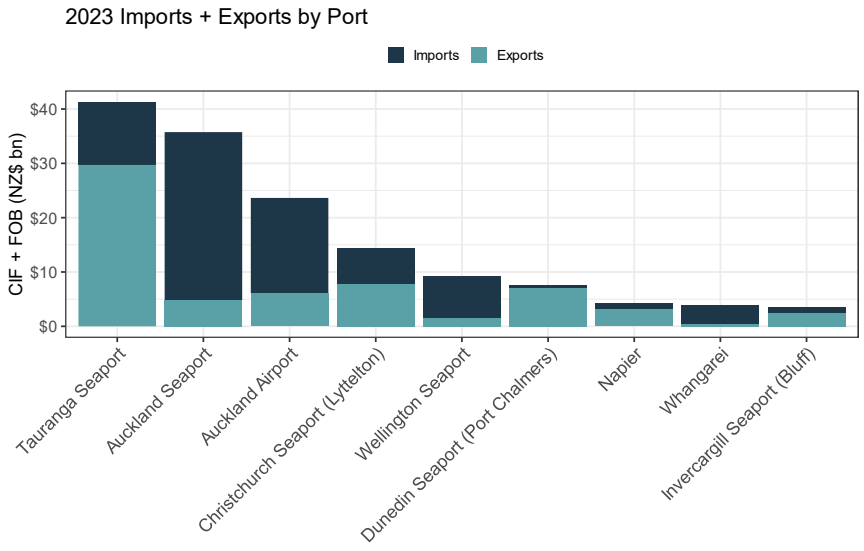
and movement of shipping containers which can be efficiently transferred between ships, trains, trucks or other onward modes of transport and storage.

Figure 3-4 shows the total value of both imports and exports handled by New Zealand's 9 largest ports in 2023[3]. Tauranga was the largest by total value, closely followed by the Port of Auckland. Both import and export flows are quite concentrated relative to the distribution of all economic activity. The graph shows that the Port of Auckland is the dominant point of entry for imports: it handled import value in excess of $30Bn in 2023, or 38% the New Zealand total. In combination with Auckland International Airport (AIAL), 59% of all imports enter the country through Auckland. AIAL is by far the largest airport hub, handling 21% of total imports by value and 9% of total exports by value[4].

The Port of Tauranga is the largest seaport for export trades, accounting for 43% of the total. Christchurch and Dunedin are the second and third largest, accounting for 11% and 10% respectively, followed by the Port of Auckland, which handled 7%. As discussed, the proximity of Tauranga, Christchurch and Dunedin to large export-oriented industries contributes significantly to this pattern.

Seaports also facilitate the flow of goods within and through New Zealand. These flows are much smaller than the volumes of international imports and exports and raise questions about which port to attribute the value of imports or exports to. We therefore exclude the value of domestic trade flows from our quantification of the port's trade effect but recognise the Port's role as a key node within this system. Annex 5: Domestic Trade contains analysis of these flows.

Figure 3-4 - Imports and Exports for Largest Ports



[3] Smaller ports are excluded from this graph including Christchurch Airport, Timaru, Nelson, New Plymouth and Gisborne.

3.6 Cruise Activity

The cruise industry contributes to the New Zealand economy as a major economic driver for the broader tourism and service sectors, and as a source of revenue for ports serving the cruises. Ports hold strategic importance within this system, providing passengers access to tourism destinations including but limited to port cities, and an essential role in enhancing passenger experiences. They also help to maintain the balance between the interests of residents, visitors, and the cruise ship industry.[5]

The sector is large. In 2022, the global cruise industry contributed US$137.6bn to global economic output, of which US$32.5bn was passenger spending.[6] The cruise industry has exhibited notable resilience to economic fluctuations and changing conditions, and in 2023 cruise passenger numbers were 7% higher than 2019, whereas overall international tourism numbers are 12% lower.[7] Further expansion of the sector is anticipated, and the Cruise Lines International Association (CLIA) forecasts the number of cruise ship berths will increase by 10% from 2024 to 2028.[8]

Of the 31.7 million passengers who cruised in 2023, just 2.4% (761,000) came to Australia, New Zealand and the Pacific region.[9] However, as global passenger numbers rise, there is an opportunity for the region to grow both its numbers and share of the market.

Cruise tourism in New Zealand contributes an estimated NZ$224m in passenger spending per year[10], at an average expenditure of NZ$380 per passenger per day. Climbing to $208m in 2019, cruise ship and passenger spending was equivalent to 0.5% of net household expenditure in Auckland, representing a significant share of expenditure. This spending stimulates local economies through accommodation, transportation and other tourist activities. Accordingly, they support local businesses, output and employment beyond the tourism and service sectors.

Cruise ships select their destinations based on tourism appeal. A typical cruise itinerary incorporates at least one quayside berthing per three calls at port[11] at the start and end of the cruise. This is necessary to enable passengers to embark / disembark, facilitate luggage handling, provisioning and refuelling. Auckland is an attractive destination as well as a key turn-around port with an international airport and sufficient hotel stock.

Figure 3-5 shows the number of cruise ship visits to each of the nine major ports in the Ministry for Transport cruise dashboard. Ship visits in 2023 had nearly recovered to pre-pandemic (2019) levels for most of the individual ports. The Port of Auckland is the most visited port in each year, demonstrating its appeal as a destination for incoming tourism. Some of the smaller regional ports are constrained by their existing infrastructure, which limits the number or size of ships that moor there. Similarly, the Port of Auckland's infrastructure is facing more challenges in servicing cruise visits, especially for the latest generation of large cruise ships, which bring more passengers per visit, but require larger berth space and put heavier demands on shoreside facilities and services.

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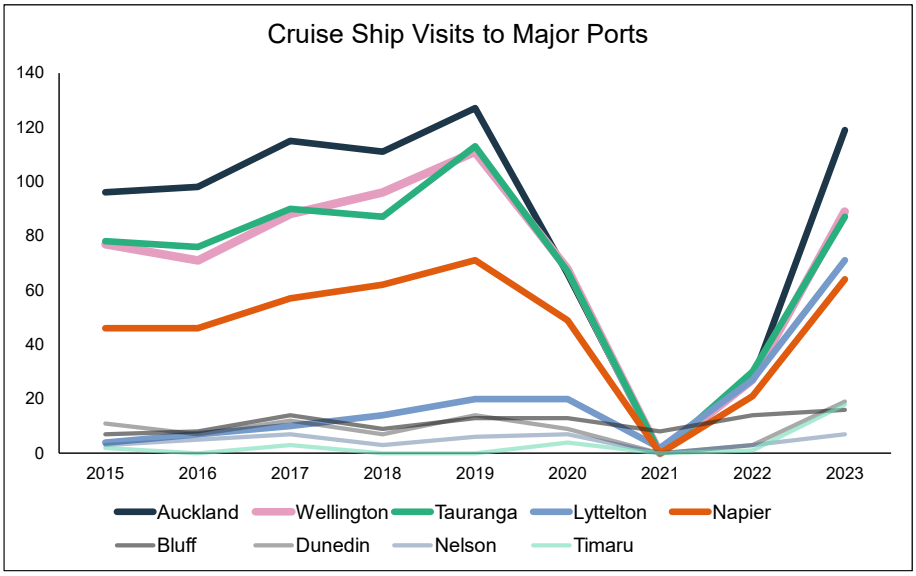
[5] Investigating the Sustainability of Cruise Tourism: A Case Study of Key West – Hritz and Cecil (2010)
[6] The Contribution of Cruise Tourism to the Global Economy – Tourism Economics (2022)
[7] 2024 State of the Cruise Industry – Cruise Lines Association (2024)
[8] 2024 State of the Cruise Industry – Cruise Lines Association (2024)
[9] Cruise Aotearoa New Zealand Strategy 2040 – New Zealand Cruise Association (2024)
[10] Cruise Aotearoa New Zealand Strategy 2040 – New Zealand Cruise Association (2024)
[11] Ibid

Figure 3-5 - Cruise Ship Visits to Major Ports



4 The Port of Auckland's economic contribution

This section analyses the economic contribution of the Port of Auckland. Activities undertaken by and on the Port constitute economic activity in their own right. However, the Port's main role is to facilitate economic activity – as an exit point for export trades, as an entry port for import trades and an entry or exit point for cruise tourism. The Port's role in the economy is driven by the scale and efficiency of its operations. The proposed project for the Fergusson and Bledisloe developments seek to alleviate existing constraints and provide for port capacity into the long term.

4.1 The Port as an entity within the economy

As a business, the Ports of Auckland employed 774 people in the 2023[12] financial year and had revenue of $320m[13], making $40m profit[14]. In 2023-24, profits grew again to $55m. This revenue is circulated within the economy through the Port's operational spending and wage outlay required to sustain these activities. Furthermore, Port of Auckland is owned by Auckland Council and profits are used to pay dividends to the Council. These dividends enable the Auckland Council to fund essential services, infrastructure projects, and community initiatives. This illustrates the Port's role as both an economic driver and as a source of public revenue.

The direct and total contribution of the Port operation to the economy is shown in Table 1. This calculation only includes the value created through port's operational spending. It omits the value of dividends to the Council as we cannot know how or when this would be spent. It is also likely to underplay economic activity from entities such as third party stevedores and others who operate on the Port. Excluding these impacts maintains a conservative position rather than estimating impacts without sufficient data on the activities. In 2023, the estimated total value added contribution was $0.30bn, with an employment effect of 2,050 MECs. This is projected to increase in the long term (2053) to $0.41bn and 2,870 MECs. The projections assume the Port's operational spending increases in line with regional economic growth forecasts.

Table 1 – Port as a Hub in Regional Economy (2023 prices)

Metric	2023	2033	2053
Direct Value Added	$ 0.17	$ 0.20	$ 0.24
Indirect Value Added	$ 0.09	$ 0.10	$ 0.12
Induced Valued Added	$ 0.04	$ 0.04	$ 0.05
Total Value Added ($NZ bn)	$ 0.30	$ 0.34	$ 0.41
Direct	770	890	1,080
Indirect	660	750	920
Induced	620	720	870
Total Employment	2,050	2,360	2,870

Source ME 2024

[12] POAL annual report 2022-23, p.30. Financial year runs from July 2022 – June 2023
[13] Ibid p.47
[14] Ibid, p.48

Core activities at the Port encompass a broad range of operations crucial to its functionality. These include container terminal operations, cargo handling, cruise ship berthing, and general wharf operations, which together form the backbone of the Port sector's operations. The Port also provides essential marine services such as towage, pilotage, and line handling, which are integral to navigating and managing the maritime traffic in and out of the Port. We have not estimated the economic value unlocked by the provision these services.

The scale and geography of the ports and water transport industry in Auckland for 2023 is shown in Table 2. Total employment in the industry is 3,251 MECs, which represents 0.33% of the regional total employment. The industry is strongly concentrated in and around the Port itself and in the CBD, with over two-thirds of economic activity there.

Table 2 – Port Operations and Water Transport Employment by Location Auckland 2023

ANZSIC	Industry	POAL	CBD, Wynyard, Viaduct	POAL and CBD	Inland Port	Marinas and Other	Airport	All Other Locations	Total Auckland
I521200	Port and water transport terminal operations	630	9	640	70	72	-	33	815
I481000	Water freight transport	-	189	189	-	-	9	46	245
I521900	Other water transport support services	16	592	608	-	21	12	196	836
I521100	Stevedoring services	50	240	290	-	-	-	6	296
I529100	Customs agency services	3	14	17	25	-	191	296	529
I482000	Water passenger transport	380	50	430	-	71	-	29	530
	Ports and Water Transport	1,079	1,094	2,174	95	165	212	605	3,251
I521200	Port and water transport terminal operations	77%	1%	79%	9%	9%	0%	4%	100%
I481000	Water freight transport	0%	77%	77%	0%	0%	4%	19%	100%
I521900	Other water transport support services	2%	71%	73%	0%	2%	1%	23%	100%
I521100	Stevedoring services	17%	81%	98%	0%	0%	0%	2%	100%
I529100	Customs agency services	1%	3%	3%	5%	0%	36%	56%	100%
I482000	Water passenger transport	72%	9%	81%	0%	13%	0%	5%	100%
	Ports and Water Transport	33%	34%	67%	3%	5%	7%	19%	100%

4.2 The Port and Regional Economies

The largest share of trade by value handled by the Port is import trades (as detailed in section 3). In 2023, the total value of imports exceeded $30bn. While many of the imported goods go directly or indirectly to household consumption, much of the trade is of essential inputs for business and industries. Access to these imports is critical for many businesses which, without ready access to them, would struggle to function competitively. Meanwhile, the Port's role in enabling and facilitating exports, at $5bn in 2023, is also critical to providing businesses access to global markets.

Table 3 shows our modelled distribution of where the Port's imports are destined and the exports originate. It is produced from modelling that estimates the origin and destination of goods through all of New Zealand's ports. A detailed description of the methodology and other summary graphics can be found in Annex 1: Modelling the Port's economic contribution. The major share of imports through the Port were for the Auckland market, as expected from the very large size of the economy, and the obvious efficiency of importing goods directly into the destination region. However, there are other significant flows of imported goods through Auckland, especially to Northland and Waikato Region. Exports through the Port were predominantly from Auckland Region (68.9%) and Northland (30.4%). Of the total trade (imports and exports combined) nearly five-sixths were to or from Auckland, with some 10% to or from Northland.

Table 3 also shows the importance of the Port to each region's import and export flows. For Northland (80%) and Auckland (82%), the majority of their imports are through the Port. The Waikato (17%), Taranaki (10%) and Manawatu-Wanganui (11%) also relied on the Port for imports, though to a lesser extent. Given the Port's focus on imports, most regions only exported a small share of their goods through it. The two regions most reliant on the Port were Northland (46%) and Auckland (24%). This finding is supported by the Port of Auckland's annual report which states that "most of the Port's inbound cargo is for Auckland".[15]

Table 3 - Imports and Exports through the Port of Auckland (POAL) by Regional Economy, 2023

Region	POAL Goods Imports	POAL Goods Imports %	POAL Goods Exports	POAL Goods Exports %	POAL Share of Goods Imports	POAL Share of Goods Exports
Northland	$ 2.12	6.9%	$ 1.42	30.4%	80%	46%
Auckland	$ 26.57	86.0%	$ 3.23	68.9%	82%	24%
Waikato	$ 1.38	4.5%	$ 0.00	0.0%	17%	0%
Bay of Plenty	$ 0.05	0.2%	$ -	0.0%	1%	0%
Gisborne	$ -	0.0%	$ -	0.0%	0%	0%
Hawke's Bay	$ 0.06	0.2%	$ -	0.0%	2%	0%
Taranaki	$ 0.25	0.8%	$ 0.00	0.0%	10%	0%
Manawatu-Wang	$ 0.39	1.3%	$ -	0.0%	11%	0%
Wellington	$ 0.07	0.2%	$ 0.03	0.7%	0%	1%
Nelson-Tasman	$ -	0.0%	$ -	0.0%	0%	0%
Marlborough	$ -	0.0%	$ -	0.0%	0%	0%
West Coast	$ -	0.0%	$ -	0.0%	0%	0%
Canterbury	$ -	0.0%	$ -	0.0%	0%	0%
Otago	$ -	0.0%	$ -	0.0%	0%	0%
Southland	$ -	0.0%	$ -	0.0%	0%	0%
Total NZ	$ 30.90	100.0%	$ 4.68	100.0%	38%	7%

Source: StatsNZ and ME 2024

4.3 Port Roles in GDP (Value Added) and Employment

The economic activity resulting from export and import flows is not solely generated by the Port itself, nor is it entirely dependent on the Port of Auckland specifically. Trade activities can be routed through various ports, indicating that no single port is essential for these activities to occur. That said, the economic activity associated with the production of exports or consumption of imports is dependent on the Port sector (seaports and airports) as a whole to deliver those goods to markets or receive them for local use. That level of activity would not otherwise occur in the economy if there were no ports. This trading is therefore sector dependent.[16]

Rational exporters and importers should choose the port option which best meets their needs. Accordingly, exports and imports through the Port of Auckland are mutually determined by the Port's services and those of other options, and the flows reflect the choice of the Port as the preferred option.

[15]POAL annual report 2022-23, Page 2

[16] In the absence of ports, or under extreme capacity constraints whereby the costs of inputs changed dramatically, fundamental economic shifts might occur. We do not consider these effects in this assessment.

4.3.1 Current Patterns

In 2020, GDP was $322bn for the whole country.[17] Assuming that all inputs to production are substitutable and contribute equally to output, the ratio of imports to all sector inputs can be used to calculate the share of value added that is attributable to imports. The analysis, which is the aggregation of estimates for each region, suggests that $10.8bn of the value added in 2020 was dependent on the imports coming through the Port. In reality, imports are crucial parts of the supply chain, without which many industries would be unable to operate effectively. If each sector's value added was entirely dependent on the proportional share of imports it received to generate any value added, the Port would account for $83.4bn of value added in the period. This assumption is purely illustrative, however. An example in the footnotes explains these calculations in more detail.[18]

M.E have also calculated the Port's share of net exports, defined as exports after taking account of the value of imported inputs within that sector and region. This approach avoids double counting the impact of imports on value added. However, it effectively gives priority to the import effects. Based on POAL's share of each region's exports for each sector, and the value of the region's net exports for each sector, we estimate that the Port facilitated $1.4bn of value added through export activity in 2020.

Employment in many sectors is reliant on the imports coming through the Port. Equally, the revenue generated by exports leaving via the Port creates and sustains jobs. However, the extent to which these jobs would or would not exist in the absence of the Port's activities is impossible to quantify confidently. For example, without imports through the Port, employment in some sectors might be necessarily higher because labour is required to substitute for capital inputs, either in the sector itself or an adjacent industry. Conversely, sectors which rely heavily on imported inputs, or whose primary market is abroad, may be entirely constrained without the Port.

Using the same methodology as for calculating the import contribution to value added – based on the region's industry share of imports to inputs, and the proportion of those imports coming through Auckland – the Port supported an estimated 106,600 MECs in 2020.[19]

Table 4 summarises the estimates for value added and employment generated by the Port through its imports and export activity. In 2020, the value added from the Port's import and export activity was $14.9 billion (in 2020 prices).[20]

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[17] Stats NZ. MBIE calculate this number as $323 bn, but we use the figures consistent with the inputs for the rest of our modelling.

[18] Example: forestry and logging in Northland is responsible for $250.7m of value added. It imports $15.6m worth of inputs and uses $530m of domestic inputs. The imports therefore comprise 3% of total inputs (15.6/(15.6+530)). Of the imports, we estimate that 98% of imports come through POAL. The Port can therefore be thought of as facilitating 0.03*0.98*15.6m = $7m of value added under the equal contribution of inputs method. Assuming the value added is entirely dependent on the proportional share of imports received would suggest that 0.98 * 15.6m = $245.3m is facilitated by the Port.

[19] Because of the approach and treatment of imports and exports as inputs, rather than spending in an industry, the estimates of value added and employment only relate to the origin or destination sector of the goods. We have not extrapolated the impact through into indirect effects such as spending by employees in supporting industries, as can be done for stimulus-based input-output analysis, and as we present for the Port's operational spending.

[20] The value added from exports to the rest of the North Island is recorded as a net negative. However, this reflects that the value added through these sectors and across these regions has already been accounted for in the analysis of the effects of imports, even if these are through other ports than Auckland. This is purely to ensure balanced totals across all industries and regions. Without this approach, the total GDP figures would not match the true totals.

To estimate the value added in 2023, the value added for 2020 has been re-based in 2023 prices using the economy structure tables adjusted with the producer price index for that sector.[21] This provides the basis for analysing the change in real import and export values from 2020 to 2023 by sector, on the assumption that the value added changes proportionally. This requires that the economy's structures remain the same, and therefore other inputs for each sector rise proportionally.[22] Given the stable and well-integrated nature of the New Zealand economy, this assumption is robust.

The total contribution of exports and imports in 2023 is estimated at $16.0bn, with $13.9bn occurring in the Auckland economy. The total value of the Auckland economy in 2023 is estimated at $145bn. This indicates that the value of economic activity enabled and facilitated by the Port represents 9.5% of regional GDP. Total employment in Auckland in 2023 was 976,500 MECs, which indicates that the economic activity enabled by the Port sustains 9.3% of total regional employment.

Table 4 - Value Added and Employment Estimates 2023

Region	Metric	Description	Nominal 2020	2023 Prices 2023
Auckland	Value Added ($NZ bn)	Imports	$ 11.6	$ 12.7
		Exports	$ 1.5	$ 1.1
	Employment	MECs	90,600	95,200
Rest of North Island	Value Added ($NZ bn)	Imports	$ 1.9	$ 2.1
		Exports	-$ 0.1	$ 0.0
	Employment	MECs	16,100	16,900
Total	Value Added ($NZ bn)	Imports	$ 13.5	$ 14.9
		Exports	$ 1.4	$ 1.1
	Employment	MECs	106,700	112,100

Source ME 2024

4.3.2 Future Outlook

The future outlook for value added and employment has been assessed according to the economy growth projections drawn from the HBA developed for Auckland Council. This has been done for Auckland and the Rest of the North Island, on the basis that the other regions' growth is consistent with the long term forecasts.

Table 5 shows the projected contribution of the Port to 2053. This projection assumes medium growth in the Auckland economy, and no significant structural change to the economy or the role of the Port. This future would see the Port facilitating $15.5bn of annual value added in the Auckland's economy by 2033, and $18.7bn by 2053, an increase of $4.9bn (35%) over the period. Including the rest of the north island leads to $17.7bn of annual value added by 2033, rising to $21.3 by 2053.

Importantly, the increased contribution is on the basis of 'Business as Usual' where the Port's role within the economy does not change materially. Rather, it continues to enable and facilitate economic activity and employment through the established structures and relationships within the economy.

[21] Producer price index uses average for 2020 and average for 2023 from Stats NZ business price indexes by sector, June 2024 update.
[22] This assumption produces unbalanced input-output tables because the structure of the economy changes with different import, export, input and price levels. However, the same issue would arise if converting the 2023 imports and exports into 2020 prices for compatibility with the economy structure tables.

Table 5 - Value Added and Employment Estimates Trade 2023-2053

Region	Metric	Description	Nominal 2020	2023 prices 2020	2023	2033	2053
Auckland	Value Added ($NZ bn)	Imports	$ 11.6	$ 11.7	$ 12.7	$ 14.2	$ 17.1
		Exports	$ 1.5	$ 1.8	$ 1.1	$ 1.3	$ 1.6
	Employment	MECs	90,600		95,200	106,500	130,700
Rest of North Island	Value Added ($NZ bn)	Imports	$ 1.9	$ 1.9	$ 2.1	$ 2.2	$ 2.6
		Exports	-$ 0.1	-$ 0.5	$ 0.0	$ 0.0	$ 0.0
	Employment	MECs	16,100		16,900	18,200	21,300
Total	Value Added ($NZ bn)	Imports	$ 13.5	$ 13.7	$ 14.9	$ 16.4	$ 19.7
		Exports	$ 1.4	$ 1.3	$ 1.1	$ 1.3	$ 1.6
	Employment	MECs	106,700		112,100	124,700	152,000

Source ME 2024

4.4 Economic Contribution of the Cruise Sector

ME has undertaken a major study of the cruise sector: *New Zealand Cruise Impact Research* for Ministry of Business, Innovation and Employment (October 2024). That research includes estimates of the contribution of the cruise sector to each regional economy and New Zealand as a whole. The M.E study applies the same general approach as used for this research into the contribution of trade and has estimated direct and total contribution to value added (GDP) arising from expenditure by cruise passengers and shipping lines into the economy. At this point in time, the research is draft only, and has not been released by MBIE.

However, to provide a preliminary indication of the cruise sector effects on the economy, M.E have drawn on the just-released study of the *Value of Cruise Tourism 2023/24*. The report, which was prepared by AEC for CLIA[23] and NZCA,[24] provides estimates of the contribution of cruise activity to value added and employment.

As shown in Table 6, the AEC research indicates a total contribution to the New Zealand economy of $680m ($0.7bn), with 9,720 jobs sustained by cruise sector activity. Of this, the total value added contribution in the Auckland Region is estimated at $303m or 44% of the national effect. Total employment is estimated at 4,170 persons (43% of the national effect).

On that basis, the cruise sector contributes an estimated 0.2% of Auckland's regional GDP, and 0.43% of regional employment in 2023.

The table also provides an estimate of the contribution to other regional economies from cruise activity in other port destinations. This indicates a value added contribution of $0.38bn, and employment of 5,550 persons in the rest of New Zealand. A share of that contribution may be attributed to Auckland on the basis that not all of the cruise activity would occur unless Auckland was part of the cruise schedule.

[23] Cruise Lines International Association
[24] New Zealand Cruise Association

Table 6 - Value Added and Employment Estimates Cruise Tourism 2023-24

Metric	Auckland	Rest of New Zealand	Total
Direct Value Added	$ 142	$ 177	$ 319
Indirect & Induced Value Added	$ 161	$ 201	$ 362
Total Value Added ($NZ bn)	$ 303	$ 378	$ 680
Direct Employment	1,950	2,600	4,550
Indirect & Induced Employment	2,220	2,950	5,170
Total Employment	4,170	5,550	9,720

Source: AEC 2024

In our view, these findings provide a sound estimate of the contribution of the cruise sector.

When this report is finalised, it will include detailed information from the ME study. We do not expect those findings will produce any material change to our conclusions on the significance of the cruise sector in the Auckland economy.

4.5 Total Economic Contribution

The Port's total contribution to the Auckland regional economy is shown in Table 7. The combined effect of trades and the cruise sector, and the Port as a business entity, puts the Port's overall contribution to value added at $14.4bn currently, and projected to increase to $19.5bn by 2053. That represents 9.7% of the economy in value added terms, increasing to 10.1% in the long term. This increase is consistent with the long term trend for trade – and specifically import trade – to grow at a faster rate than the economy as a whole.

The contribution to Auckland regional employment is similar, at 101,400 MECs currently enabled and facilitated by the Port's role (10.4% of total), and increasing to 139,300 by 2053, to represent 11.1% of regional employment by then (this estimate is currently based on the AEC study estimates of the role of the cruise sector).

Table 7 - Total Economic Impacts Auckland 2023-53

Component	2023	2033	2053
Value Added ($NZ bn)			
Trade	$ 13.8	$ 15.5	$ 18.7
Cruise	$ 0.3	$ 0.3	$ 0.3
Port Entity	$ 0.3	$ 0.3	$ 0.4
Port Facilitated	**$ 14.4**	**$ 16.1**	**$ 19.5**
Rest of Auckland Economy	$ 133	$ 146	$ 174
Auckland Region Economy	$ 148	$ 162	$ 193
Port Facilitated %	9.7%	9.9%	10.1%
Employment (MEC)			
Trade	95,200	106,500	130,700
Cruise	4,170	4,610	5,700
Port Entity	2,050	2,360	2,870
Port Facilitated	**101,400**	**113,500**	**139,300**
Rest of Auckland Economy	875,100	949,500	1,119,700
Auckland Region Economy	976,500	1,063,000	1,259,000
Port Facilitated %	10.4%	10.7%	11.1%

Source ME 2024

The total contribution of the Port to the Auckland and other regional economies is shown in Table 8. The combined effect of trades and the cruise sector see the Port's overall contribution to the economy at $16.5bn currently, increasing to $22.1bn by 2053. Note that the cruise effect counts only Auckland visits. This is because while Auckland is important as a destination, and instrumental in drawing cruise vessels to New Zealand at all, it is difficult to reliably apportion to Auckland a share of the final contribution of cruise to the economies of other regions.

The contribution to employment is estimated at 118,300 MECs currently enabled and facilitated by the Port's role, increasing to 160,600 by 2053. These are significant effects.

Table 8 - Total Economic Impacts Auckland and Rest of NZ 2023-53

Component	2023	2033	2053
Value Added ($NZ bn)			
Trade	$ 16.0	$ 17.7	$ 21.3
Cruise	$ 0.3	$ 0.3	$ 0.3
Port Entity	$ 0.3	$ 0.3	$ 0.4
Port Facilitated	**$ 16.5**	**$ 18.4**	**$ 22.1**
Employment (MEC)			
Trade	112,100	124,700	152,000
Cruise	4,170	4,610	5,700
Port Entity	2,050	2,360	2,870
Port Facilitated	**118,300**	**131,700**	**160,600**

Source ME 2024

5 Effects of the Project

The foregoing assessment is important to show the significance of the Port of Auckland in the Auckland and New Zealand economy. The final matter to address is the nature and magnitude of effects from the Fergusson extension and new Bledisloe North wharf infrastructure project. The project will contribute to multiple aspects of the Port's operation, so that identifying and measuring the specific effects is not straightforward. Furthermore, not all aspects of the Port's operation lend themselves easily to measurement. The project's contribution to outcomes and efficiency will be a combination of many inputs.

5.1 Approach

The contribution of the Fergusson and Bledisloe project will be diverse and spread across multiple aspects of the Port's operation. Consequently, it is difficult to attribute specific impacts from the project to measurable aspects of the Port operation, such as container numbers, cargo volumes, vessel numbers and turnaround times. We cannot assert that if the project did not proceed, then the Port's trade capacity or its cruise passenger capacity would be capped at a specific level or decline, and that any further growth beyond that capacity would not occur unless the project proceeds. However, there are some changes that we would expect.

- Auckland would be unable to accept larger cruise ships, which could have increasingly negative impacts given trends towards these ships. If these ships withdraw from New Zealand, there will be knock on consequences for ports throughout the country. Moreover, because these ships carry more passengers, the associated foregone spending is large.
- Container ships will be limited to the current size. Auckland will not benefit from the economies of scale brought by larger ships coming into its port. These ships will instead need to drop Auckland-bound cargo in other ports and it will need to be transported back to Auckland, increasing costs, emissions and transportation durations.
- Congestion in the ferry basin would increase, hampering ferry operations, efficiency and passenger numbers.
- Captain Cook and Marsden Wharves would not be returned to Auckland Council for alternative use.

Given the uncertainty above, the appropriate approach to assessing the effects of the project is to consider their roles holistically, drawing on the substantial economic evidence of the significant and widespread roles of the Port in the regional and national economy, together with the evidence that the project will contribute to that Port capacity and efficiency.

In situations where the wider picture is well understood, but the specific contribution of a major project is problematic to measure precisely – a regular feature of economic assessment – a common approach is to establish the total contribution of the entity to the economy, and to examine the project's contribution within a range of possible and plausible outcomes. The base for this is the Port's net additional contribution to the

economy going forward, which is over and above its current role. A share of that net additional contribution is attributable to the project.

The previous assessment outlined the Port's impact at various future junctures, offering snapshots of its evolving role. This analysis not only highlights the Port's cumulative economic input but also the net increase as both the economy and the Port expand. Within this context, we can evaluate the additional GDP impact and employment opportunities generated by the project, as proportions of the total incremental contribution.

That approach is most suitable in relation to the export and import trades, based on a 'Business as Usual' situation where trade grows in line with growth in the economy. However, the contribution through the cruise sector is more than a *pro rata* or Business as Usual approach because the Port has a catalytic role in the total New Zealand cruise sector. Improvements to the Port of Auckland will have direct effects on the capacity and capabilities of the New Zealand cruise sector overall. Some of the largest cruise vessels require this infrastructure to justify coming to New Zealand at all. This means the improvements from the project will flow directly beyond Auckland through cruise vessel numbers and passenger numbers which can visit other ports around New Zealand.

Because the Captain Cook and Marsden Wharves are being returned to Auckland Council for alternative uses through this project, we discuss the benefits of this transfer. Without the project, these benefits would not be realised. Alternatively, if they were released without replacement infrastructure, RoRo trade in Auckland would be reduced, adding to supply chain costs and other negative consequences.

5.2 Trade-related effects

The trade-related effect can be expected to accumulate directly as the economy grows and the Port continues to contribute through its established economic linkages. This 'Business as Usual' future represents the minimum contribution by the project, whereby the Bledisloe and Fergusson improvements merely enable the Port to maintain its established roles in the economy. That is, their contribution is assumed to arise *pro rata* with the performance of the Port. That is the 'Base Case' for this assessment.

This is a conservative stance. The project should support a larger role for the Port in the economy going forward. Moreover, that additional capacity and efficiency may allow the regional economy able to grow faster than it would otherwise have done, providing further benefit from the project. It is not feasible to reliably estimate either effect, however.

The total Port contribution over the 2024-53 period is summarised in Table 9. The annual contributions cumulated over the period total $505bn in Auckland region, and $578 bn in total. The net additional GDP effect due to growth is estimated at $77.1 bn in Auckland, and $84bn in total. The employment effect is also large, with 3.5m person years in Auckland over the three decades, and 4.09m person years throughout New Zealand.

Table 9 – Port Contribution to Economy through Trades 2024-2053

Region	Metric	Description	Total Port Economy Effect 2024-53	Net Additional Effect 2024-53
Auckland	Value Added ($NZ bn)	Imports	$ 463	$ 68.3
		Exports	$ 42	$ 8.8
		Total	$ 506	$ 77.1
	Employment	MECs (000)	3,500	550
Rest of North Is	Value Added ($NZ bn)	Imports	$ 72	$ 6.6
		Exports	$ 1	$ 0.2
		Total	$ 73	$ 6.9
	Employment	MECs (000)	591	67
Total	Value Added ($NZ bn)	Imports	$ 535	$ 74.9
		Exports	$ 43	$ 9.1
		Total	$ 579	$ 84.0
	Employment	MECs (000)	4,091	617

Source ME 2024

The final step in the assessment is to identify potential effects of the project according to the assumed shares of growth. The scenarios used show the contribution if the project proceeds of between 5% and 15% of pro rata growth. The range is purposely conservative. The overall value added by the Port is expected to grow by 34% from 2023 – 2053. Attributing 5% – 15% of this growth to the project suggests that it would be responsible for growing the port's operations by between 1.7% and 5.1% over the period[25]. The upper bound aligns broadly with the 5% extension of Fergusson North container terminal berth length, and an implied proportional increase in handling volumes. The lower bound shows the impacts where a lesser share of this is captured. However, because larger ships will be able to use the Port increasing its role as a transhipment hub, handled volumes could increase by more than the counterfactual, and net benefits could be larger, the outcome is most likely be near to the upper bound. We do not quantify this outcome, however.

We note that the Fergusson and Bledisloe project is by far the largest anticipated project which will contribute to the Port's capacity and operation, and it is logical that material shares of the growth are attributable to it. Furthermore, existing capacity constraints suggest that without these extensions, the Port would not be able to retain its current role in the economy, with economic growth outstripping the Port's growth.

Table 10 presents the three scenarios. In the Low effect scenario, where the project accounts for 5% of the Port's net additional contribution over the period, the total value added contribution is estimated as $4.2 bn, and an employment effect of 30,000 person years. In present value (PV) terms, using a 5% discount rate, the value added contribution would be $1.9bn.

In the Medium effect scenario where the project accounts for 10% of the net growth over the period, the value added contribution is $8.4 bn, with an employment effect of 62,000 person years. In PV terms, the value added contribution would be $3.8 bn.

[25] 0.05*0.34 = 0.017 and 0.15*0.34 = 0.051

In the High effect scenario where the project accounts for 15% of the net additional contribution over the period, the value added contribution would be in the order of $12.6bn, (in PV terms $5.7bn), and an employment effect of 62,000 person years.

Table 10 – The Project's Potential Contribution to Economy through Trade 2024-2053

Region	Metric	Description	Growth 2024-53	Net Project Effect 2024-53 Low 5%	Medium 10%	High 15%
Auckland	Value Added ($NZ bn)	Imports	$ 68.3	$ 3.4	$ 6.8	$ 10.2
		Exports	$ 8.8	$ 0.4	$ 0.9	$ 1.3
		Total	$ 77.1	$ 3.9	$ 7.7	$ 11.6
	Employment	MECs	549,700	27,000	55,000	82,000
Rest of North Island	Value Added ($NZ bn)	Imports	$ 6.6	$ 0.3	$ 0.7	$ 1.0
		Exports	$ 0.2	$ 0.0	$ 0.0	$ 0.0
		Total	$ 6.9	$ 0.3	$ 0.7	$ 1.0
	Employment	MECs	66,700	3,000	7,000	10,000
Total	Value Added ($NZ bn)	Imports	$ 74.9	$ 3.7	$ 7.5	$ 11.2
		Exports	$ 9.1	$ 0.5	$ 0.9	$ 1.4
		Total	$ 84.0	$ 4.2	$ 8.4	$ 12.6
	Employment	MECs	616,400	30,000	62,000	92,000

Source ME 2024

The assessment assumes first that the Port's role in the economy will grow only *pro rata* with growth in the economy, even though the project can be expected to materially enhance the Port's capacity and efficiency, which would have flow on effects for the wider economy. Moreover, for the assessment it is assumed that only a minor share of the growth in the Port's role is attributable to the project.

Crucially, the value added and employment contributions to the economy are very large even when only attributing a conservative share of effect. On that basis, we conclude that in relation to the trade effects the project will deliver significant regional and national economic benefits.

5.3 Cruise Sector effects

The project will provide substantial improvements to berth capacity, shore facilities, and the speed of cruise passenger handling. This will enable a larger number of cruise vessels. The project will increase the number of shore visits from passengers on those cruises, and also enable longer visiting time – hence spending opportunities – on shore. Additional time also enables access to more local destinations.

Because the Port is the major hub for the cruise sector in visits to New Zealand, greater capacity and improved efficiency in Auckland will have direct flow-on effects for cruise activity in other ports around New Zealand. As discussed, the berthing capability for very large cruise ships will increase the potential for those vessels to visit New Zealand at all, which should enable stronger growth in cruise tourism.

The contribution of the cruise sector has been assessed according to the direct effects of cruise passengers spending in Auckland on goods and services, primarily the hospitality sector, retail and entertainment. The

cruise vessels also spend on servicing of the vessels themselves, as well as food and other goods for the cruise passengers.

For the quantification of trade effects, the Port's economic contribution is calculated from the tourism and related activity that is facilitated and enabled by the Port. Indeed, tourism could still occur in the absence of the Port, if the visitors chose to visit Auckland using other forms of transport. However, an essential component of cruise tourism is the vessel, which transports the cruise passengers, provides accommodation, hospitality, retail and entertainment. The cruise itself is a large part of the product that cruise passengers purchase. Accordingly, it is difficult to suggest that any substantial component of the cruise passenger activity while visiting Auckland and other port destinations might be substitutable through air and land travel. On that basis, it is valid to assume that the impact of cruise passengers and vessels on the Auckland economy would not occur unless the Port could accommodate the vessels.

In 2023, the contribution of the cruise sector to the Auckland economy is estimated at $0.25bn in value added, and employment at 3,100 MECs (see above Table 6).

The potential contribution to the economy of the project's effect on the cruise sector is summarised in Table 11. The additional contribution in the Business as Usual future allows for the cruise sector to grow in line with the Auckland economy. On that basis, the total additional contribution from cruise sector growth would be $1.2bn ($0.5 bn in PV terms), and 16,000 person years of employment.

We assume that the effect of the project allows for a one-off uplift in cruise sector activity of 10%, primarily through enabling and facilitating visits by larger cruise vessels, and establishing a new base point for future growth from that point. Growth thereafter would follow the same pattern, being commensurate with growth in the total economy, from that higher base. The net additional effect in the 2024-2053 period would be $1.9bn, or $0.7bn attributable to the project (an additional $0.4bn in PV terms), and an additional 9,000 person years of employment. The Bledisloe North development would be particularly important, as it will handle larger cruise ships, which are expected to account for an increasing share of total cruise activity into the long term.

For the Rest of New Zealand (also shown in Table 11), the total additional contribution from cruise sector growth would be $2.1bn ($0.8 bn in PV terms), and 31,000 person years of employment.

Table 11 – The Project's Potential Contribution to the Economy through Cruise 2024-2053

Region	Metric	Total Port Economy Effect 2024-53	Net Additional Effect 2024-53		
			BAU	With Projects	Projects' Net Effect
Auckland	Value Added ($NZ bn)	$ 8	$ 1.2	$ 1.9	$ 0.7
	Employment (MECs 000	98	16	25	9
Rest of NZ	Value Added ($NZ bn)	$ 14	$ 2.1	$ 2.8	$ 0.7
	Employment (MECs 000	209	31	42	11
Total	Value Added ($NZ bn)	$ 22	$ 3.3	$ 4.8	$ 1.4
	Employment (MECs 000	307	47	67	20

Source ME 2024

For comparison, the effect of the project allowing for a one-off uplift in cruise sector activity of 5%, following the same pattern from the higher base, would be $0.7bn of value added attributable to the project (an additional $0.3bn in PV terms), and an additional 11,000 person years of employment. This sensitivity analysis still indicates significant benefits.

These estimates omit the very real possibility of cruise activity declining in the absence of the project. With the Port unable to handle the growing number of large ships, activity in 2053 might be lower than 2023, meaning the net additional impact of this project would be larger.

5.4 Total Quantifiable Effects

In addition to the cruise and trade effects will be some effects from the expanded role of the Port in the economy as a business entity. We include these in the summary tables below. As noted previously, this assessment does not include the economic benefits of the wharf transfer.

Table 12 shows the combined effects for the Auckland economy. The total value added contribution to the economy of the project is estimated at between $4.5bn (Low) and $12.7 bn (High). In PV terms[26], the contribution of the project to the Auckland economy is estimated at between $1.8bn (Low) and $5.4bn (High).

Table 12 – The Project's Potential Contribution to the Auckland Economy 2024-2053 ($NZ bn)

Sector	Context : Growth 2024-53	Gross			Present Value		
		Net Project Effect 2024-53			Net Project Effect 2024-53		
		Low	Medium	High	Low	Medium	High
Trade	$ 77	$ 3.9	$ 7.7	$ 11.6	$ 1.8	$ 3.5	$ 5.3
Cruise	$ 1	$ 0.6	$ 0.7	$ 0.9	$ 0.0	$ 0.0	$ 0.1
Port Entity	$ 2	$ 0.1	$ 0.2	$ 0.3	$ 0.0	$ 0.1	$ 0.1
Total	$ 80	$ 4.5	$ 8.6	$ 12.7	$ 1.8	$ 3.6	$ 5.4

Source ME 2024

Table 13 shows the combined effects for the New Zealand economy. The total value added contribution to the economy of the project is estimated at between $5.5bn (Low) and $14.6 bn (High). In PV terms, this is estimated at between $2.5bn (Low) and $6.6bn (High).

Table 13 – The Project's Potential Contribution to the New Zealand Economy 2024-2053 ($NZ bn)

Sector	Context : Growth 2024-53	Gross			Present Value		
		Net Project Effect 2024-53			Net Project Effect 2024-53		
		Low	Medium	High	Low	Medium	High
Trade	$ 84	$ 4.2	$ 8.4	$ 12.6	$ 1.9	$ 3.8	$ 5.7
Cruise	$ 22	$ 1.2	$ 1.4	$ 1.7	$ 0.5	$ 0.6	$ 0.8
Port Entity	$ 2	$ 0.1	$ 0.2	$ 0.3	$ 0.0	$ 0.1	$ 0.1
Total	$ 108	$ 5.5	$ 10.0	$ 14.6	$ 2.5	$ 4.5	$ 6.6

[26] 5% discount rate

These figures are large in dollar terms, as expressed in both real and discounted present value terms. In each case, the future contribution to the economy of the Port through its trade and cruise effects is substantial, and ongoing. The project's estimated contribution is a small share of the additional effect every year, and accumulates over time as a large effect over the 30 year planning period.

5.5 Wharf Transfer

The transfer to Auckland Council of the Marsden and Captain Cook wharves is an important benefit from the project. It will increase the extent of the publicly accessible waterfront, enabling greater levels of people activity for the central city workforce and resident population, and the population of the region as a whole. Those benefits represent a positive contribution to the economy and are additional to the trade- and cruise-related benefits discussed above. However, they have not been quantified here, and are recognised though not counted as part of the total economic contribution.

5.6 Discussion

As discussed, we do not estimate changes in profitability and hence dividends paid to Auckland Council. In the 2023 financial year Council received a $30m dividend, which it can use to fund public services and promote wellbeing. We do not estimate the value added from this spending, nor how this economic impact might change as a result of the project.

Similarly, the relocation of RORO vessels will also enable the future transfer of Captain Cook and Marsden Wharves to Auckland Council for public use. This should improve the utilisation of waterfront space for the public, enhancing the overall utility and accessibility of the waterfront area. That would represent a net positive contribution to the Auckland economy, especially from enhancing the roles and contribution of the central city. We do not place monetary values on the benefits of this change because of measurement difficulties.

It is also relevant to address the question of the underlying assumptions in this research, that the Port's existing roles in the economy will continue in the future, and will be an integral part of the region's role in the national economy. The trends in sea-trade export flows through the Port have seen a shift from Auckland to other ports, a loss of share as the national economy has continued to evolve (Annex 2) – might that be evidence of a shift in the significance of the Port in the economy. However, the analyses of the regional economy do not indicate any shift in the roles of the Port in the last two decades, rather offering evidence of its established role in the regional and national economy. In line with this, import flows through Auckland have continued to increase, consistent with regional and national population and employment growth. We consider there is no indication of a likely shift in the Port's place in the economy.

6 Summary and Conclusion

This research has examined the potential economic benefits of a major project to create a new Bledisloe North berth and extend the Fergusson North berth.

This is in the context of the likely economic benefits of developing the project, which is established on the list of Fast Track projects.

The project will extend and enhance the capabilities of the Port to perform its core roles in the economy – enabling and facilitating trade, and activity by the cruise sector - into the long term. These roles are long-established, and the Port is an integral node within the Auckland and national economies. The Port's role in export trade has decreased over the past decade. However, Auckland is by far the country's largest port for the imports, which are critical inputs for numerous businesses and provide for household consumption.

In 2023, the Port directly sustained and facilitated value added (GDP) of $14.4bn (9.7% of the Auckland's total) and employment of 101,400 MECs (10.4% of Auckland's total).

The effects of the project will increase over time as the economy grows and there are increasing demands on the Port to support that economic growth. The project will have widespread influence on most aspects of the Port's operation and can be expected to contribute to the Port's overall improvement and increased role in the economy.

In relation to the Fast Track legislation's criteria for projects to contribute to economic benefits, this project can be shown as making a major contribution to the economy and economic growth.

The research findings show large contributions to the economy over the next 30 years. Our estimates of the real present value of these benefits to the Auckland economy range from $1.8bn to $5.4bn; for the total New Zealand economy, these estimates rise to between $2.5bn and $6.6bn. The approach taken to reach these findings has been deliberately conservative, with a view to making the findings as robust as possible, in recognition of the importance of the objectives of the Fast Track legislation.

Any additional benefits from the transfer of the Marsden and Captain Cook wharves, although considered positive, are not included in the overall assessment because of the difficulties in reliably monetising such benefits.

We note that these findings of large contributions to economic activity and employment are entirely consistent with the nature of the project, and with the established major roles of the Port in the economy.

7 Technical Annexes

Annex 1: Modelling the Port's economic contribution

Method notes

For this research, M.E. has undertaken modelling to estimate the origin and destination of goods through the Port of Auckland and each of New Zealand's other ports. The assessment draws from detailed records of New Zealand's imports and exports from Stats NZ. Trade flows are recorded by their Harmonised System Classification (NZHSC)[27] for each port and quarter. Looking at the 2019 data, which we select for compatibility with the latest national accounts input-output tables[28], we group the NZHSC goods into the 199 input-output products.[29] Next, we use the national input-output tables to model the economic sectors which use or produce the imports and exports, based on the share or products under each grouping. For exports we use the national supply table, which shows the production of goods and the industries which work to produce them. By identifying the sectors which work to produce the goods which get exported, we can understand different sectors' reliance on ports as their access to global markets. For imports we use the national imports into industries table, which records how imported goods and services are used in intermediate consumption and final use.[30] Our output is a long data table with one row per port per industry in 2019-20, showing the value of imports and outputs through each of New Zealand's ports.

To estimate the origin and destination of these products, ME have applied a multi-region input-output model which calculates international exports and imports by industry based on value which is not supplied within or produced by domestic regions. To ensure our total imports and total exports match the Port data – which is required for subsequent modelling steps – we scale the regional data so that the sector totals are equalised to those in each island for the Port data. We then take the regional import and export data and estimate the values at a Territorial Authority (TA) level based on the share of Modified Employment Count (MEC) by sector in each territorial authority and industry. This is therefore a proxy for how much demand truly exists in each TA. Because of overlaps with TAs and regions, we manipulate MECs at a SA1 level and regroup them to estimate what share of each region's imports or exports are from or flow to TAs which overlap it. The output from this process is a long data table with one row per TA per industry showing the value of imports and exports originating in or arriving at the location.

The next stage in the analysis models and estimates the flows between TAs and ports. First, we calculate the distance from each TA centroid to each port on the same island. Despite the existence of domestic trade flows between seaports and airports, modelling these would undermine the optimisation approach and introduce excessive entropy, so are excluded from this analysis. The objective function minimises the sum of the product of distances between TAs and the corresponding goods flow using a Mixed Integer Programming (MIP) model. Importantly, this function does not delineate units of value from weight or transport costs. That is, the

[27] Harmonised System Classification Documentation – Stats NZ
[28] Stats NZ – National Accounts Input-Output Tables: Year end March 2020.
[29] The concordance first maps HS10 to Central Product Classification (CPC) code, and from there to 199 input-output products.
[30] This is distinct from the national use table, which shows how goods and services are used by industry, but includes the domestic supply of these goods.

optimisation minimises the distance that each unit of value would have to travel, rather than minimising the number of kilometre tonnes or journey numbers, which might better reflect some transport costs and preferences.

Constraints are applied ensuring that the total exports and imports for each sector remain consistent at each port and TA. This is crucial for maintaining balance between the demand and supply across different regions and sectors. The solution provides detailed flow paths that minimise total transport distance, adhering to the predefined constraints of maintaining balanced trade flows. Our output records one row per TA per port per sector, calculating how much that TA exports/imports from/to the corresponding port.

The figures below summarise this data at a TA and port level, aggregating the sectors. The individual treatment of these sectors leads to a nuanced picture emerging, whereby the solution suggests that some TAs bypass nearby ports. This is possibly due to the nature of sectors demanding or producing the goods, and which ports handle those types of goods. The model also optimises according to each island's road network, meaning some flows are matched between ports and TAs with considerable distance between them.

Figure 7-1 and Figure 7-2 show the import and export value through ports mapped to territorial authorities. TAs which produce or demand high values of goods are shaded darker. The picture for imports is stark, Auckland's demand far exceeds all other TAs and it obtains most of these goods from the Port of Auckland. This finding is supported by the Port of Auckland's annual report which states that "most of the Port's inbound cargo is for Auckland".[31] For exports, the model estimates that the Port of Auckland can handle much of Auckland's export demand, but some of this is also pushed to both Auckland airport and Tauranga, representing a sub-optimal journey for many of those products. Tauranga is the dominant export port and is allocated much of the value throughout the North Island.

[31]POAL annual report 2022-23, Page 2

Figure 7-1 - Port Import Value Modelled to Territorial Authority Destinations

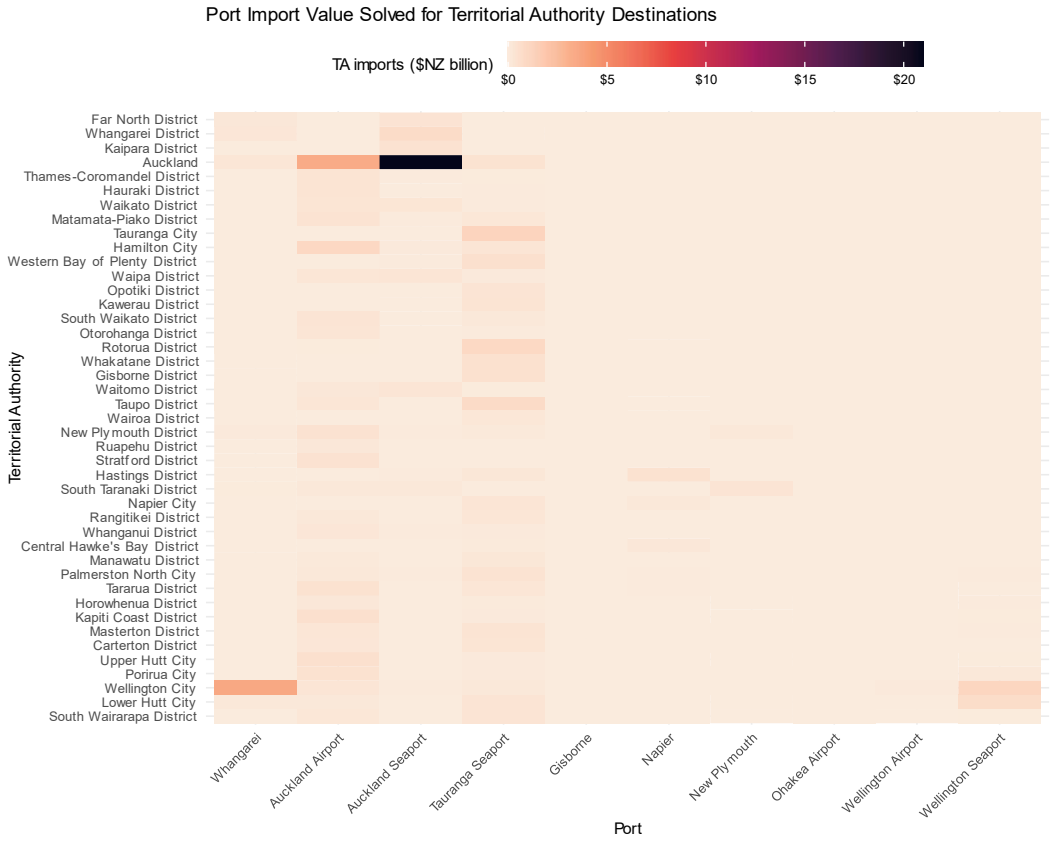


Figure 7-2 - Port Export Value Modelled to Territorial Authority Origins

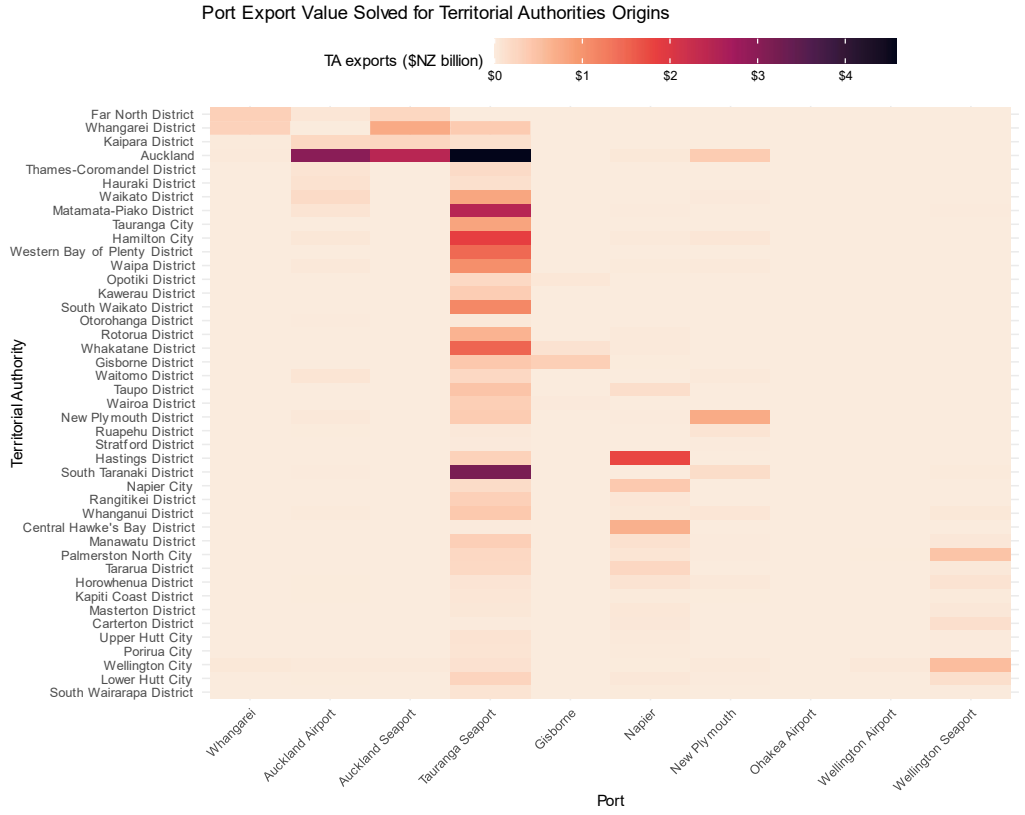


Figure 7-3 and Figure 7-4 present the data as a share of total imports or total exports for each TA. While the Port of Auckland is estimated to be the exit point for around half of exports from TAs including and north of Auckland, Tauranga is the port for nearly all exports from many TAs throughout the North Island. Despite these TAs not exporting a great deal of value, as shown in Figure 7-2, they are heavily reliant on Tauranga, which handles a major share of the types of products that these TAs export. The share of imports is more unevenly distributed. This is also driven by the range of goods imported, compared with the concentration of export sectors in dairy- and meat-related industries. The Port of Auckland is estimated to be the origin of at least 75% of imports for TAs in the north of the island, including 84% in Auckland, but mostly smaller shares further down the island.

Figure 7-3 - Share of Territorial Authority Exports to Individual Ports

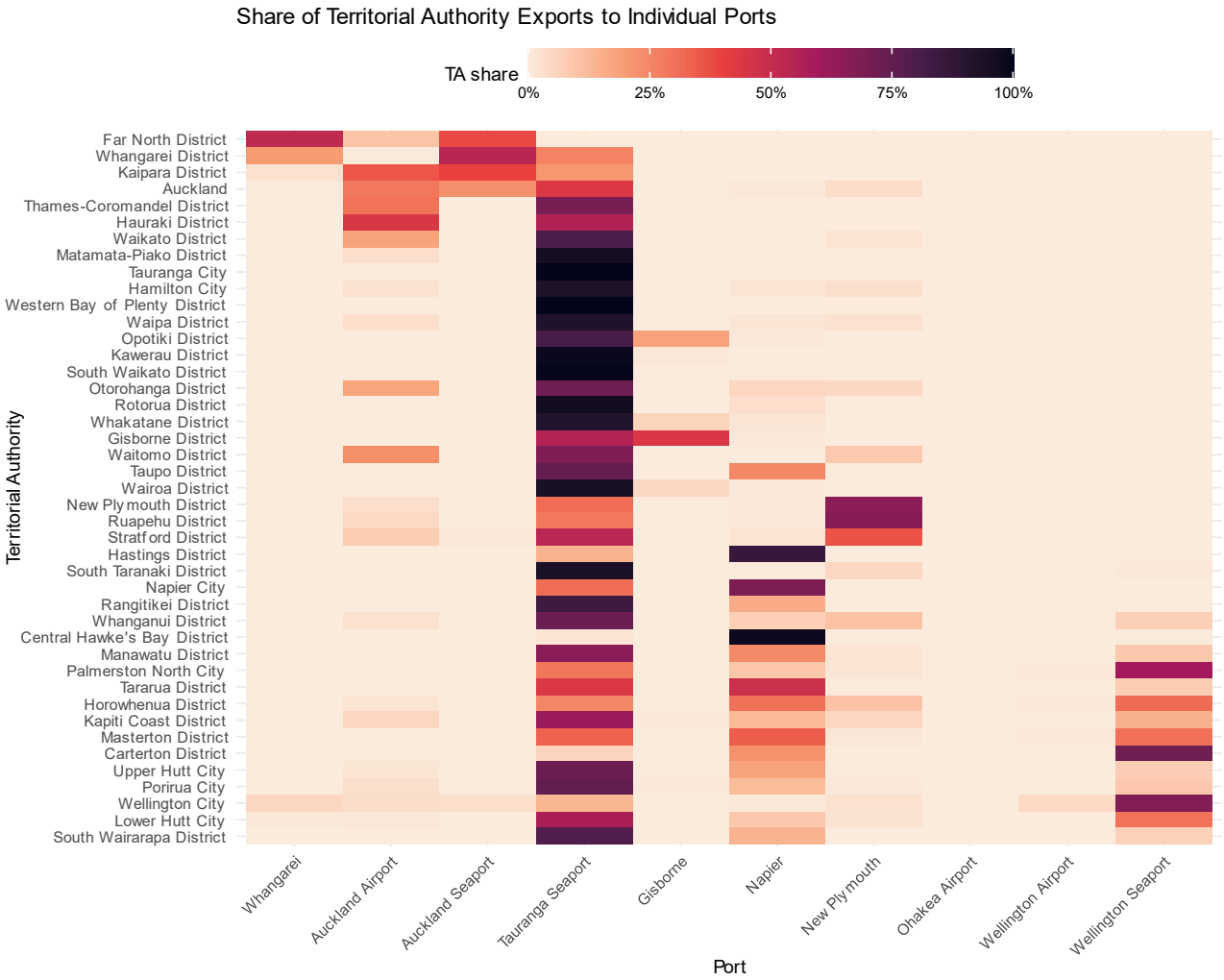


Figure 7-4 - Share of Territorial Authority Imports from Individual Ports

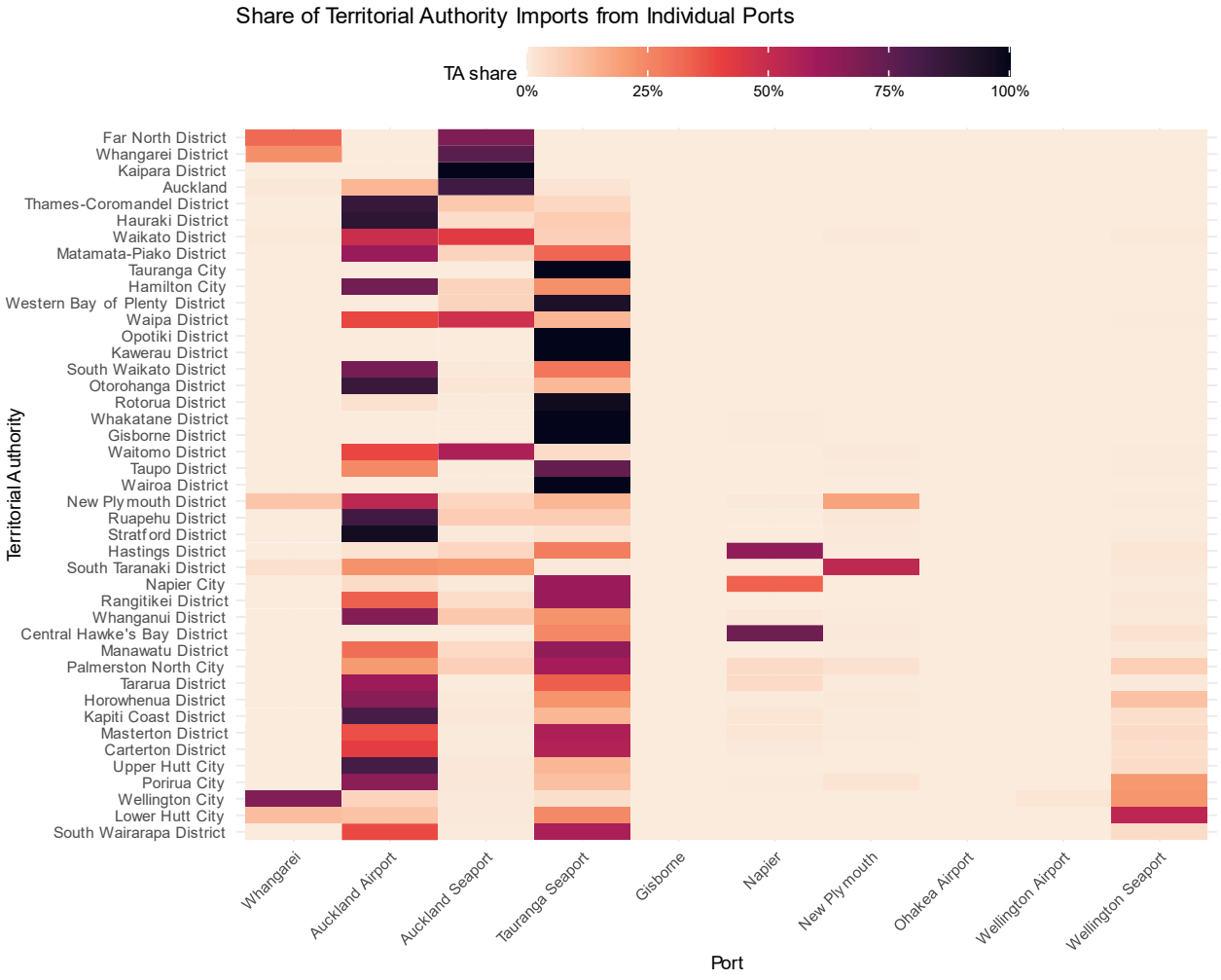


Table 14 shows the dollar values of flows between north island territorial authorities and Auckland Seaport.

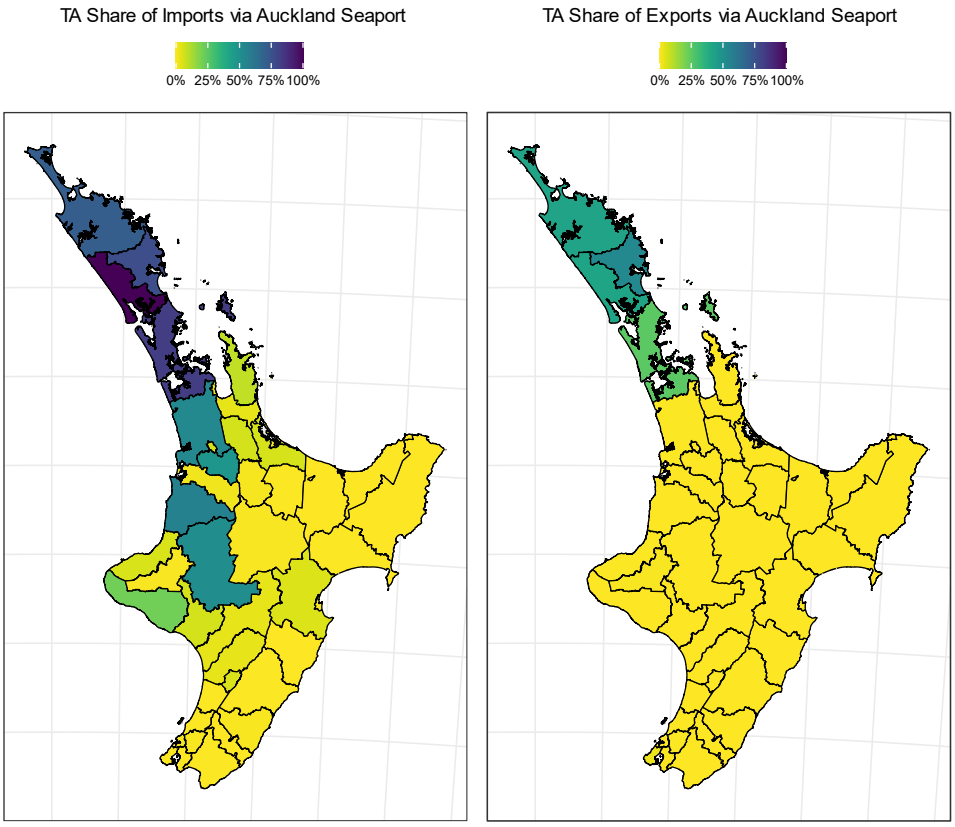
Table 14 - Imports and Exports through Auckland Seaport by Territorial Authority ($NZ million)

Territorial Authority	Imports through Auckland Seaport	Exports through Auckland Seaport
Auckland	20,797.4	2,908.8
Carterton District	0.2	0
Central Hawke's Bay District	0	0
Far North District	407	259.6
Gisborne District	0	0
Hamilton City	87.7	0
Hastings District	39.9	0
Hauraki District	14.3	0
Horowhenua District	0.7	0
Kaipara District	452	260.5
Kapiti Coast District	1	0
Kawerau District	0	0
Lower Hutt City	4.6	4.8
Manawatu District	11.8	0
Masterton District	6.4	0
Matamata-Piako District	44.6	0
Napier City	4.3	0
New Plymouth District	49.1	1
Opotiki District	0	0
Otorohanga District	7.6	0
Palmerston North City	37.6	0
Porirua City	7.4	0
Rangitikei District	15.2	0
Rotorua District	1.8	0
Ruapehu District	122.7	0
South Taranaki District	146.2	0
South Waikato District	5.9	0
South Wairarapa District	0.9	0
Stratford District	2.8	0.2
Tararua District	2.4	0
Taupo District	6.4	0.1
Tauranga City	0	0
Thames-Coromandel District	42.4	0
Upper Hutt City	7.4	0.1
Waikato District	357.5	1.8
Waipa District	308.7	0
Wairoa District	0.4	0
Waitomo District	300.2	0
Wellington City	26.3	23.4
Western Bay of Plenty District	35.6	0
Whakatane District	0	0
Whanganui District	24.4	0
Whangarei District	804	763.9

Figure 7-5 shows the estimated share of imports or exports produced or used / consumed in each TLA, which are handled by the Port.

There is a high degree of concentration in Auckland and Waikato, reflecting the size of these economies, driven by the major cities in each region and their proximity to the port. Northland's isolation and lack of alternative ports also yields a high degree of concentration there, too.

Figure 7-5 - TA Share of Imports and Exports via Auckland Seaport



Annex 2: Role of the Port

Figure 7-6 and Figure 7-7 show the value of imports and exports through the Port of Auckland in 2023 prices. While imports have growth slightly in value over the period, exports have fallen significantly.

Figure 7-6 - Imports through Auckland Seaport

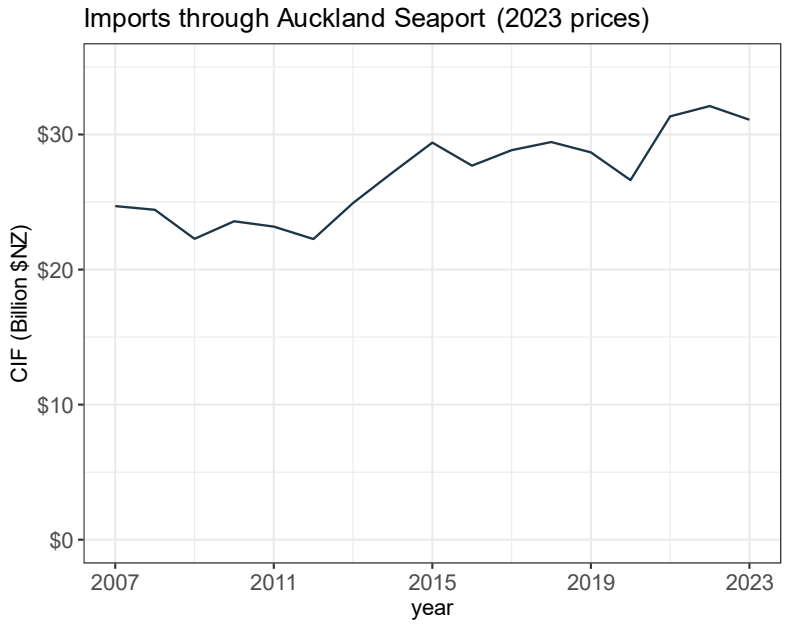


Figure 7-7 - Exports through Auckland Seaport

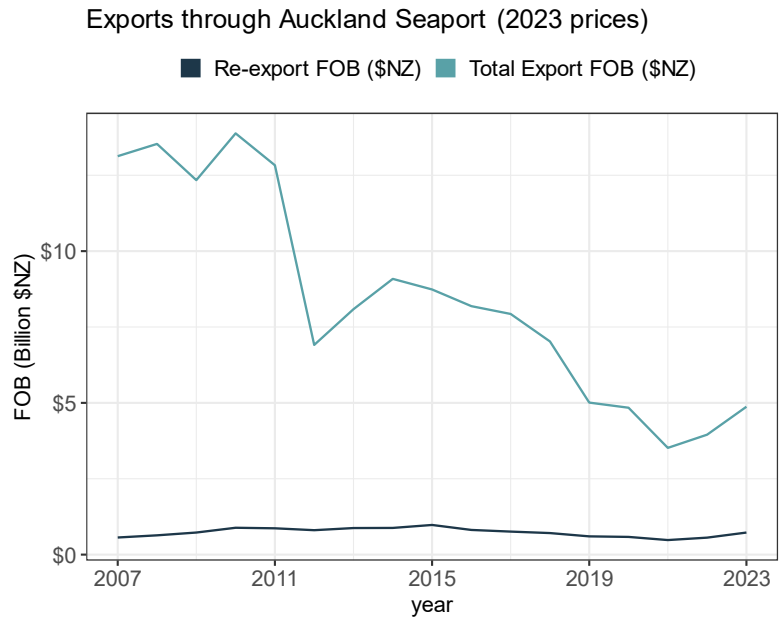


Table 15 shows the geographic pattern of imports and exports by region across New Zealand. These imports and exports represent goods handled by New Zealand's ports and the analysis is a summary of modelling from the reconciliation of trade flows and regional economic activity to estimate the origin and destination of goods imports and exports for each TLA and port. The outputs do not capture transhipments or domestic flows, so all imports and exports for a given port originate from or arrive at territorial authorities in the same island.

In 2023 the value of imports handled by New Zealand's ports was $82bn, while the value of exports handled was $68bn. Table 15 shows the estimated import and export values by region, and the region's share of national imports or exports. The value of imports to each region generally reflects the size of each regional economy, with Auckland, Wellington, Waikato and Canterbury together accounting for nearly three quarters of total imports. The distribution of export values is different, reflecting the relative orientation of the major primary producing regions.

Table 15 - Imports and Exports by Region 2023

Region	Goods Imports	Goods Imports %	Goods Exports	Goods Exports %	Total Trade Value	Total Trade Value %
Northland	$ 2.66	3.2%	$ 3.06	4.5%	$ 5.72	3.8%
Auckland	$ 32.29	39.3%	$ 13.17	19.4%	$ 45.45	30.3%
Waikato	$ 8.12	9.9%	$ 10.80	15.9%	$ 18.92	12.6%
Bay of Plenty	$ 5.09	6.2%	$ 5.94	8.7%	$ 11.03	7.3%
Gisborne	$ 0.66	0.8%	$ 0.86	1.3%	$ 1.52	1.0%
Hawke's Bay	$ 2.70	3.3%	$ 4.24	6.2%	$ 6.94	4.6%
Taranaki	$ 2.42	2.9%	$ 5.31	7.8%	$ 7.73	5.1%
Manawatu-Wanganui	$ 3.71	4.5%	$ 3.67	5.4%	$ 7.38	4.9%
Wellington	$ 14.39	17.5%	$ 2.54	3.7%	$ 16.93	11.3%
Nelson-Tasman	$ 0.81	1.0%	$ 1.39	2.0%	$ 2.20	1.5%
Marlborough	$ 0.51	0.6%	$ 1.28	1.9%	$ 1.79	1.2%
West Coast	$ 0.23	0.3%	$ 0.80	1.2%	$ 1.03	0.7%
Canterbury	$ 5.73	7.0%	$ 9.38	13.8%	$ 15.11	10.1%
Otago	$ 1.70	2.1%	$ 2.04	3.0%	$ 3.74	2.5%
Southland	$ 1.19	1.4%	$ 3.53	5.2%	$ 4.72	3.1%
Total NZ	$ 82.21	100.0%	$ 67.99	100.0%	$ 150.20	100.0%

Source: StatsNZ and ME 2024

The role of imports and exports in each regional economy varies (Table 16). Imports represent between 11% and 14% of all inputs in each regional economy, except for Auckland (15%) and Wellington (18%), which are both major population centres. For exports, however, there is greater variation in their value as a share of total outputs – the main exporting regions see relatively high shares of their total goods going for export, especially from primary processing. Note that the table shows imports and exports as a share of gross inputs and gross output.[32] Importantly, imports and exports under this definition (as extracted from the national

[32] Imports used for final consumption, changes in inventories or gross fixed capital formation are included in this calculation.

accounts tables), also include services and non-physical goods, in addition to the physical goods flows to and from New Zealand through the Ports network[33].

Table 16 - Imports and Exports Flows in Regional Economies 2023

Region	All Imports Share of Gross Inputs	All Exports Share of Gross Output
Northland	14%	17%
Auckland	15%	11%
Waikato	13%	17%
Bay of Plenty	13%	15%
Gisborne	14%	15%
Hawke's Bay	13%	19%
Taranaki	11%	23%
Manawatu-Wanganui	14%	14%
Wellington	18%	8%
Nelson-Tasman	14%	18%
Marlborough	13%	24%
West Coast	12%	24%
Canterbury	13%	17%
Otago	13%	13%
Southland	12%	24%

Source: StatsNZ and ME 2024

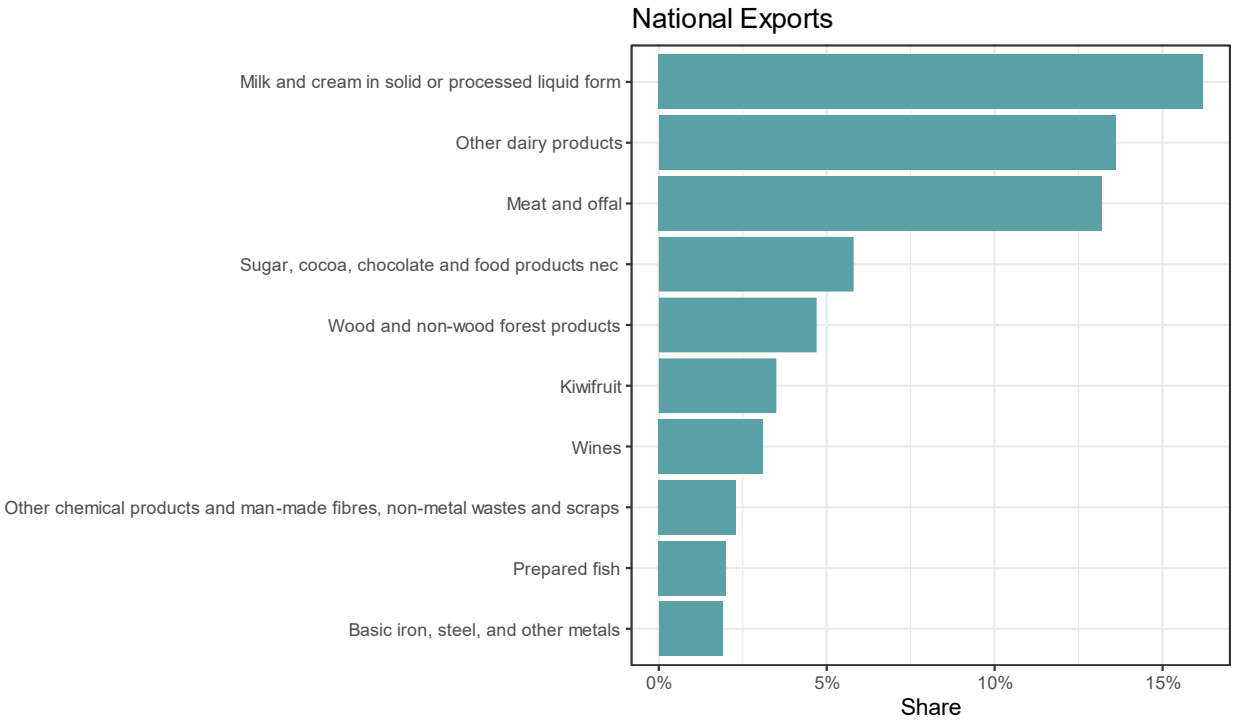
[33] How imports and exports are defined and treated for the purpose of calculating these flows and assessing GDP impacts is addressed in subsequent methodology section in the Annex.

Annex 3: Trades Products

To examine the types of goods being handled by seaports, we use Stats NZ data on import and export value by port which is recorded by their Harmonised System Classification (NZHSC)[34] for each port and quarter. The time series from 2007 – 2023 contain c17,000 unique NZHSC10 codes. We therefore group the definitions into the 199 input-output products.[35]

Figure 7-8 and Figure 7-9 show the 10 products with the largest share of export and import value in 2023. The two largest export products were milk and dairy, which together totalled 30% of export value. Several other major export products were foodstuffs and beverages such as meat, kiwifruit, wine and prepared fish. Motor vehicles and trailers were the most significant product by import value (13%), followed by petroleum (8%). The product concentration is higher for exports because these are dependent on the industries in which New Zealand specialises.

Figure 7-8 - Products Share of 2023 Exports



[34] Harmonised System Classification Documentation – Stats NZ

[35] The concordance first maps HS10 to Central Product Classification (CPC) code, and from there to 199 input-output products. To obtain the CPC code, a dynamic concordance process utilizes the 2007, 2012, 2017 and 2022 concordance sheets, including their updated codes, from Stats NZ's ARIA database. Some items are listed as confidential or have no concordance to a 199 input-output product. These do not comprise a significant share of value, however.

Figure 7-9 - Products Share of 2023 Imports

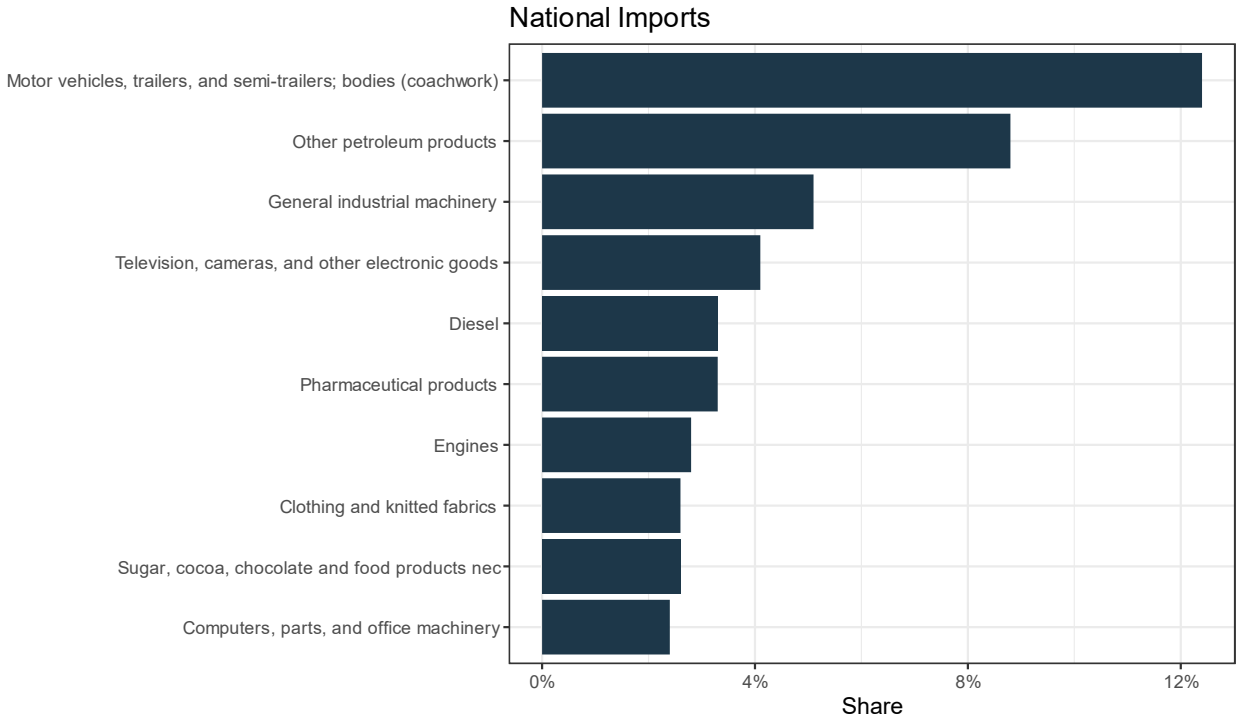


Figure 7-10 and Figure 7-11 focus on the Port of Auckland and its role within the national landscape. The figures show the 10 products which comprised the greatest share of imports and exports through the Port, plotting this against the corresponding product's share of national imports or exports. Exports through the Port of Auckland tend to be less concentrated than national exports, especially for meat and dairy products. Meat and dairy account for some of the largest individual export groupings through the Port, yet their share of Auckland exports is still smaller than their share of national exports, pointing to even greater concentration elsewhere. Waste, industrial machinery, beer, juice and soft drinks, and structural metal product exports are all more concentrated through Auckland than elsewhere. This suggests a level of specialisation in Auckland across these export markets.

The Port of Auckland is the primary point of entry for motor vehicles and trailers. These products were the largest imports by value (12%), more than double the value of the next largest category, general industrial machinery. 82% of motor vehicles and trailers enter New Zealand through the Port of Auckland, with the 2023 value being $8.3bn of the $10.2bn total. Christchurch seaport is the second largest entry point, handling $0.7bn of product value. Because Auckland is the largest port for imports, most of the products which comprise a large share of value through the Port have lower corresponding shares nationally. The only exception in the top 10 is televisions, cameras and other electronic goods. This reemphasises the Port's critical role for supplying highly demanded goods to consumers and businesses.

Figure 7-10 – Top 10 POAL Exports Share Compared with Their Share of National Exports

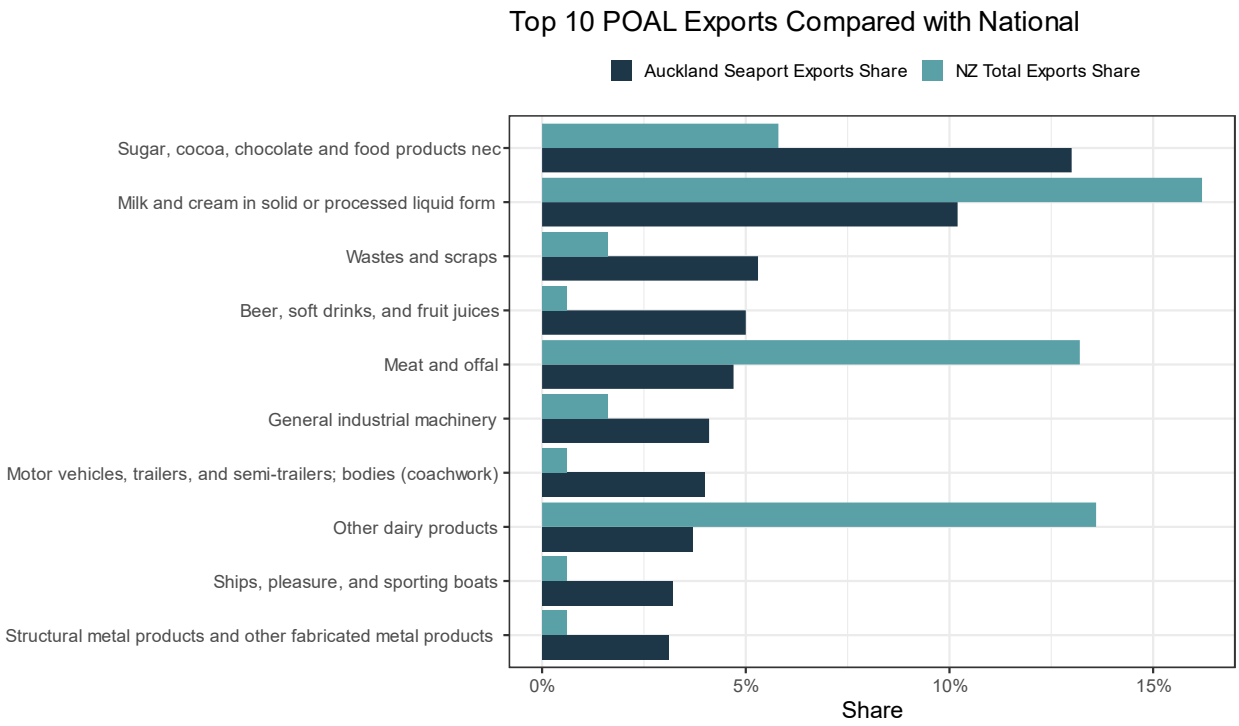


Figure 7-11 - Top 10 POAL Imports Share Compared with Their Share of National Imports

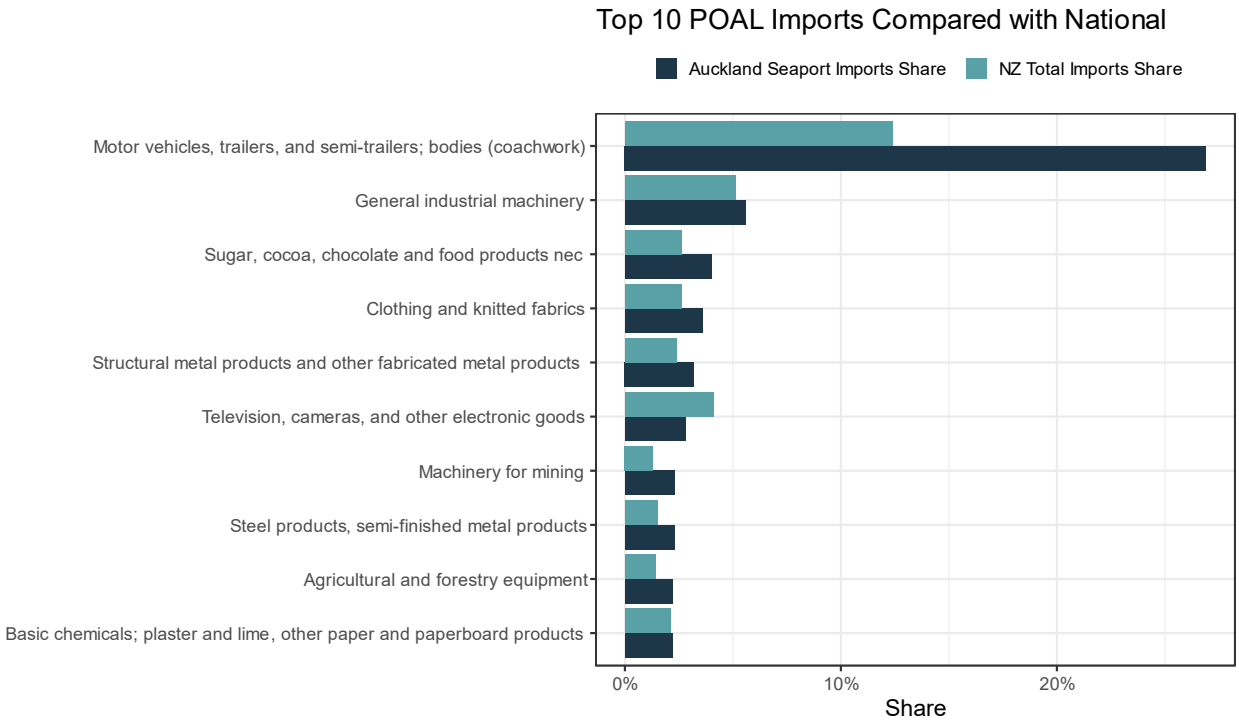


Figure 7-12 and Figure 7-13 show how the goods passing through the Port of Auckland have evolved over time. They graph the products which comprised the top shares of value through the Port of Auckland in 2007 and compare their share of value 2023. The three largest products by export value through the Port in 2007 – milk, dairy products and meat – have significantly smaller shares of export value today. These have fallen by 6 – 12 percentage points. Over the same period, the value of the corresponding products being exported through Tauranga has increased between threefold and fivefold. Imports show a more consistent picture over the

period. Other than growth in the share of motor vehicles, most other import shares have remained similar, with steel products and semi-finished metal products and primary form plastics both dropping slightly, but from initially marginal bases.

Figure 7-12 – Top 10 Port of Auckland Exports in 2007 by Share Compared with Their Share in 2023

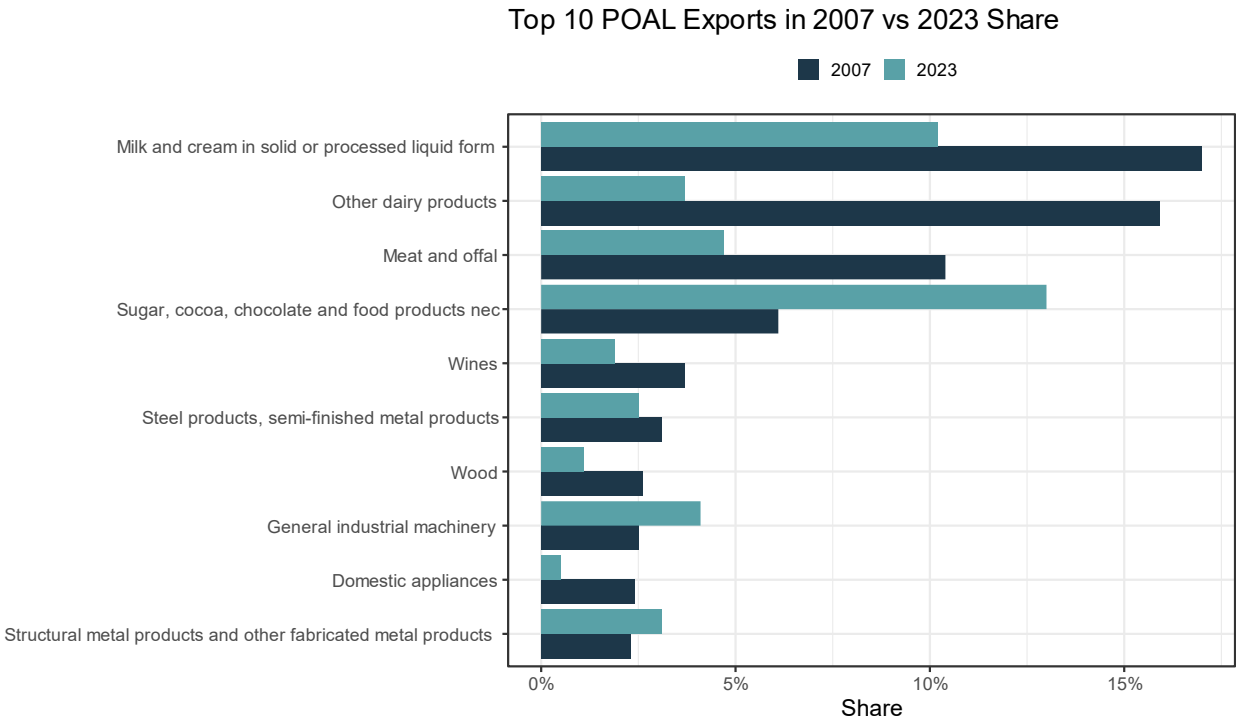


Figure 7-13 - Top 10 Port of Auckland Imports in 2007 by Share Compared with Their Share in 2023

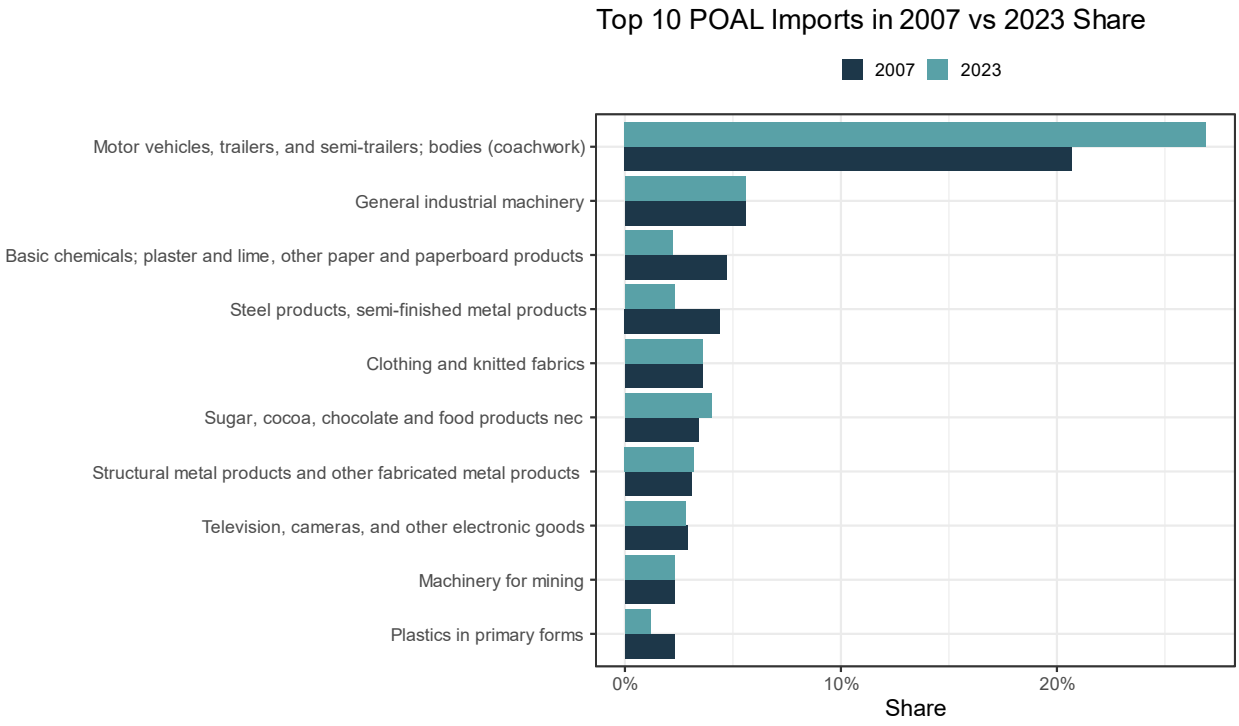


Figure 7-14 and Figure 7-15 show the importance of the Port of Auckland for different economic sectors, and how much those sectors import or export in total. The scatter plots show the total value of goods imported or exported by each industry, and the proportion of those imports or exports which flow through the Port of Auckland. Dairy product manufacturing and meat and meat product manufacturing are the largest export industries and exhibit low reliance on the Port of Auckland. Other industries, despite more modest total export value, rely significantly on Auckland. Examples include transport equipment manufacturing (33%) and fabricated metal product manufacturing (35%). The Port of Auckland's positioning enables businesses within these sectors to minimise costs and be internationally competitive. Because the Port of Auckland is more import focussed, most industries rely more heavily on the Port for imports than exports. Around half of all imports for household consumption and gross fixed capital formation come through the Port, and there are even greater shares for industries including fabricated metal product manufacturing (57%) and motor vehicle retailing, including parts (65%). The Port's operations help to keep costs for businesses down and, relatedly, prices for consumers lower.

Figure 7-14 - POAL Share of Exports by Value and Origin Sector

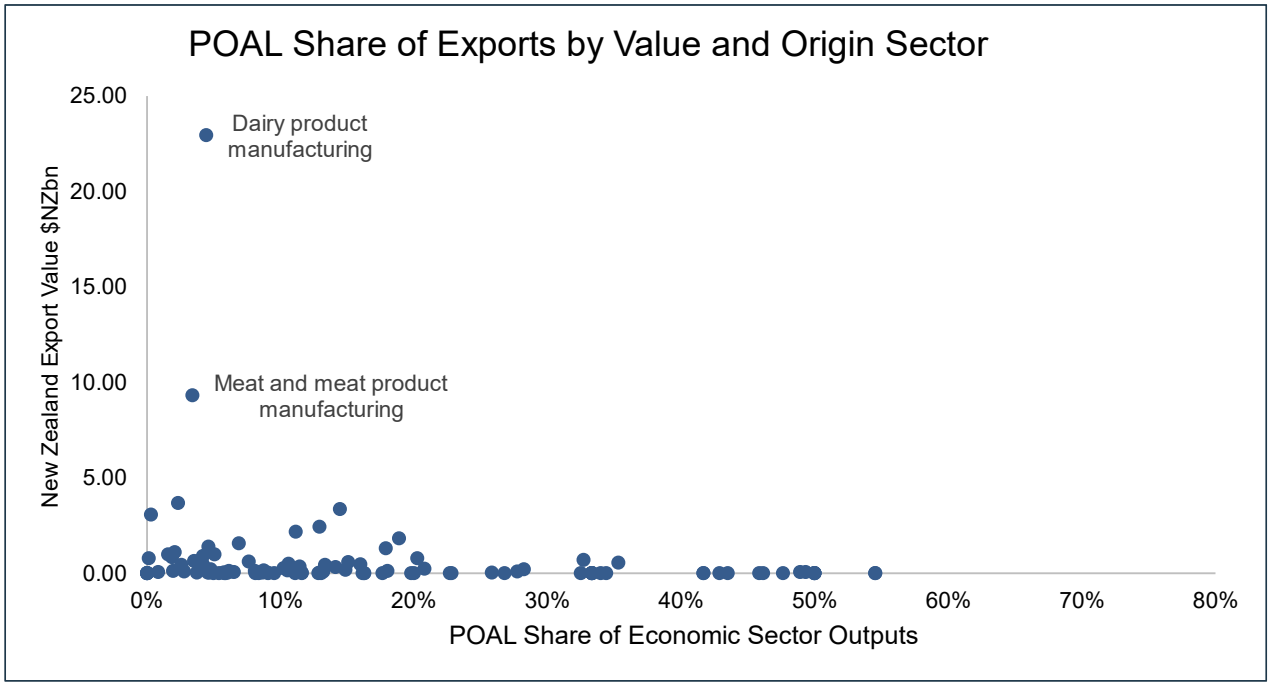
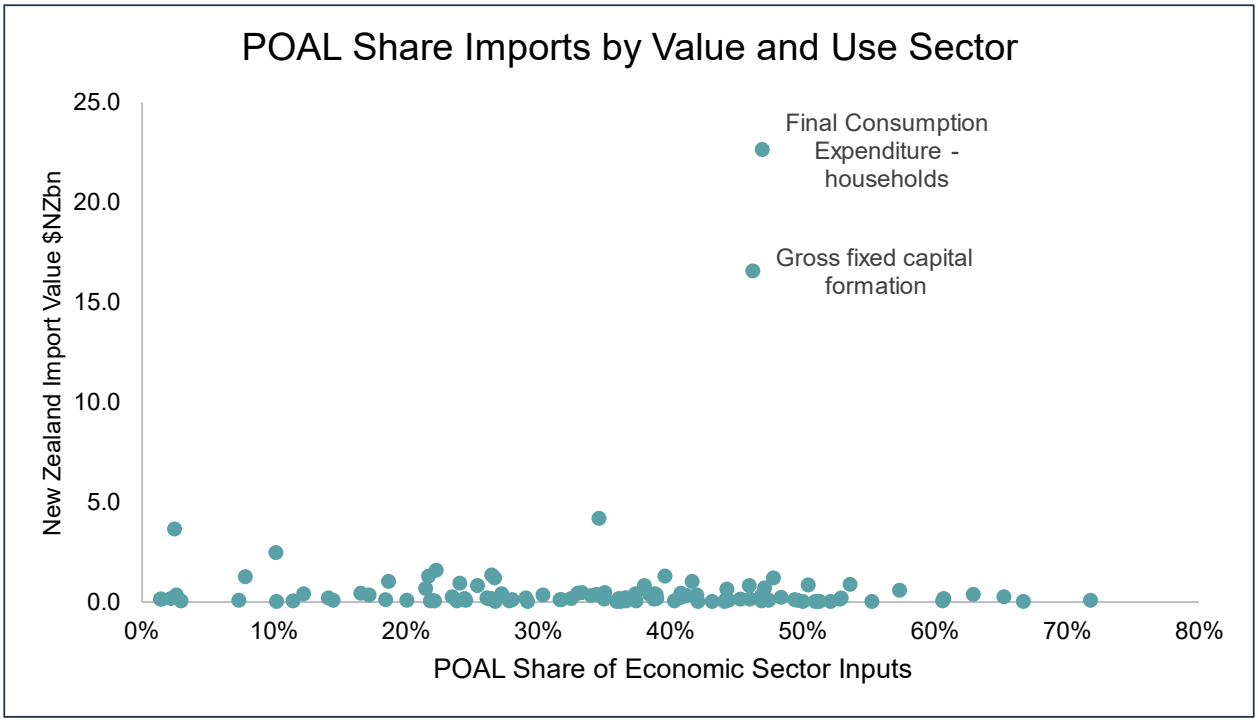


Figure 7-15 – Port of Auckland Share of Imports by Value and Use Sector



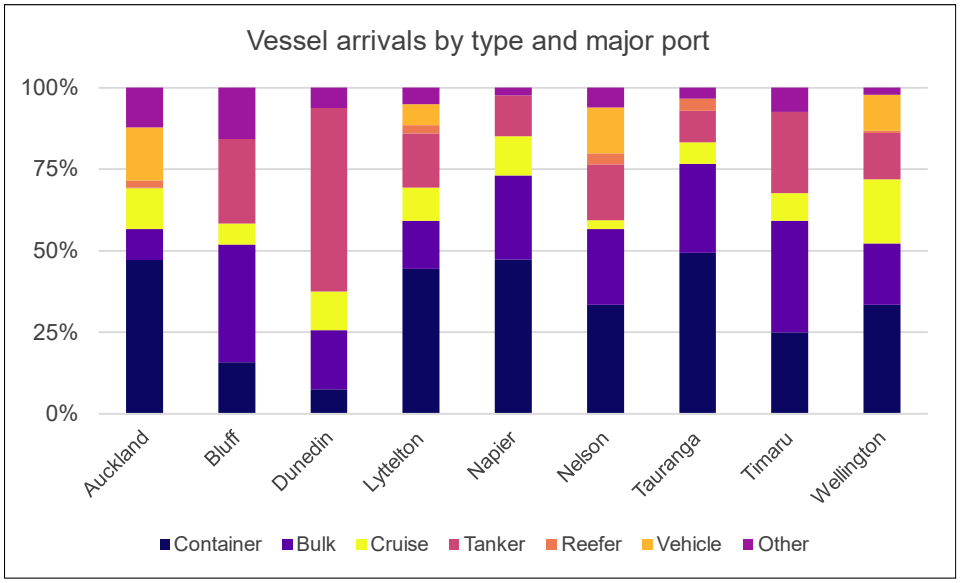
Annex 4: Vessel types

In addition to handling different products and operating at vastly different scales, the major seaports in New Zealand berth an array of vessel types. Here we focus on cargo ships, which serves as a catch-all description for various categories of ships which are primarily used for transporting goods. Categories of cargo ships include:

- **Bulk carriers:** Designed to transport unpackaged bulk cargo, such as grains, coal and ore.
- **Container ships**: Specialised for carrying containerised cargo.
- **Reefer ships:** Refrigerated ships used to transport perishable commodities such as fruits, meat, fish and dairy products.
- **Tankers:** Ships designed to transport liquid cargoes such as oil, chemicals and liquified natural gas.
- **Vehicle carriers:** Ships specifically designed to carry cars, trucks and other vehicles, often using a roll-on/roll-off method (Ro-Ro).

The Ministry of Transport publishes data on freight and logistics for New Zealand's nine largest container ports. Figure 7-16 shows vessel arrivals by type and port, illustrating significant variations that reflect the economic roles and geography of each port. Auckland and Tauranga have the highest proportions of their ships being container ships at 47% and 49% respectively, reflecting their principal roles for imports and exports. Only four ports recorded any vehicle vessels, Auckland (16%), Wellington (11%), Nelson (14%) and Christchurch (7%). Tanker traffic is notably prevalent in Dunedin, where 56% of the vessel arrivals are tankers. This reflects the region's industrial base, which is oriented towards processing industries such as oil refining and chemical manufacturing, necessitating substantial imports of crude oil and other liquid bulk cargoes. Bulk vessels are seen throughout the major ports, including with high shares in Tauranga, Bluff and Timaru, linked to local agricultural activities and export-oriented operations. Reefer ships are relatively uncommon, docking at only five ports with none exceeding 4% of total vessel arrivals.

Figure 7-16 - Vessel arrivals by type and major port



Focussing on container movements, volumes can be summarised by three metrics:

- Volume of containers in twenty-foot equivalent units (TEU);
- Volume of containers for full contains in twenty-foot equivalent units (full TEU); and
- Container weight (tonnes).

We focus on full TEU as this corresponds most closely with trade flows. TEU includes empty containers whose movements are often part of global repositioning, rather than associated with New Zealand trade. Auckland and Tauranga capture the majority of full TEU container trade (67%), as shown in Figure 7-17 below.

Figure 7-17 - Full Container TEU to Major Ports, 2023

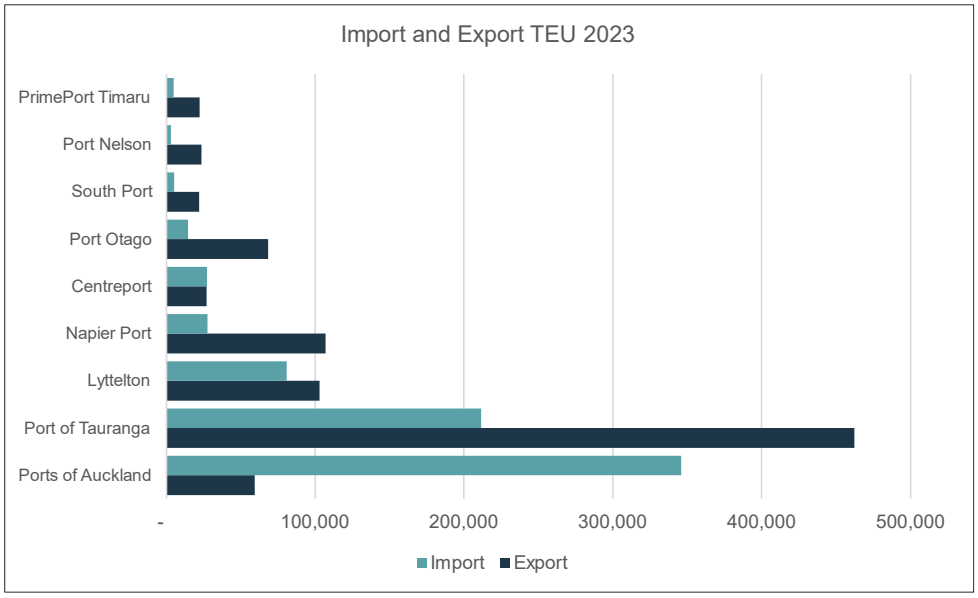
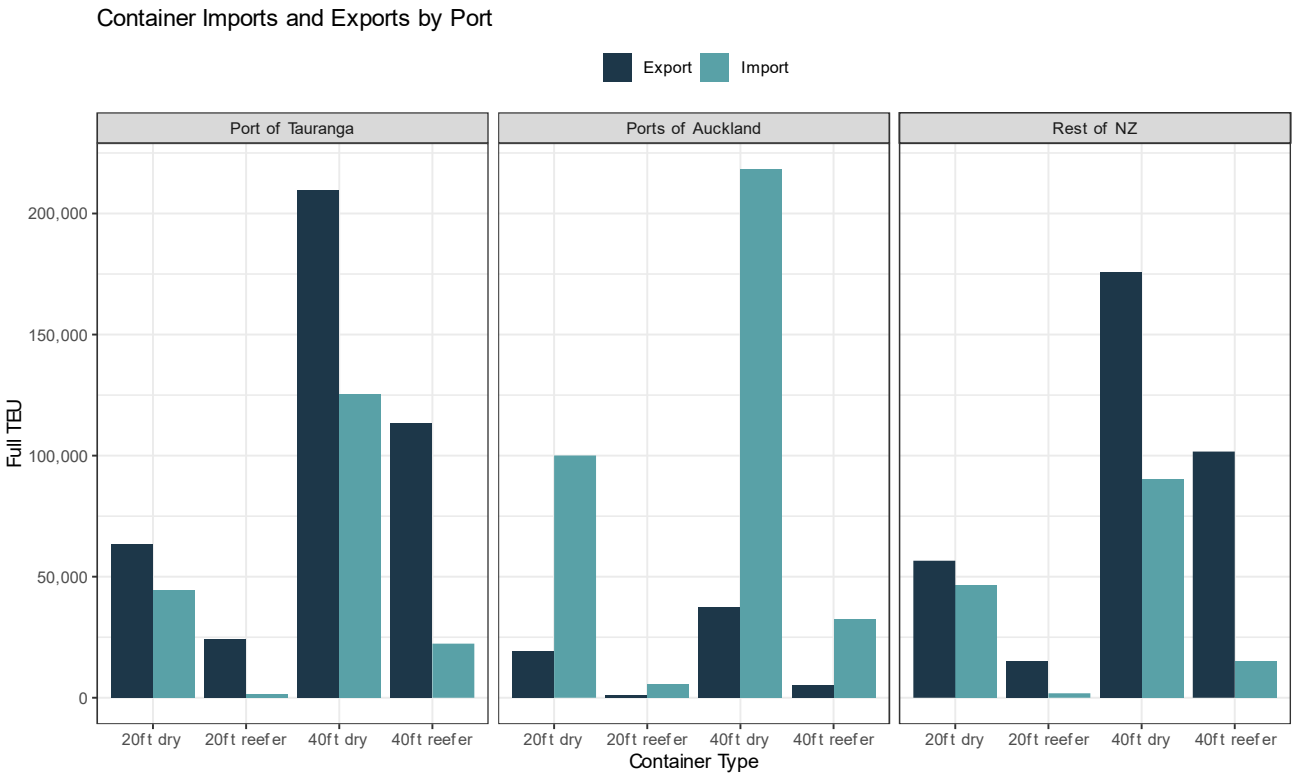


Figure 7-18 shows the different container types handled by Tauranga, Port of Auckland and New Zealand's other major seaports. 40 ft dry containers are the most common container type overall. Auckland handles a smaller proportion of refrigerated containers because of the lower volumes of perishable exports passing through the Port.

Figure 7-18 - Container Imports and Exports by Port



Annex 5: Domestic Trade

Seaports also facilitate the flow of goods within and through New Zealand. These flows are smaller than the volumes of international imports and exports. However, they still represent a important economic function of ports. Data on these trade flows can be split up into four categories shown in 17.[36]

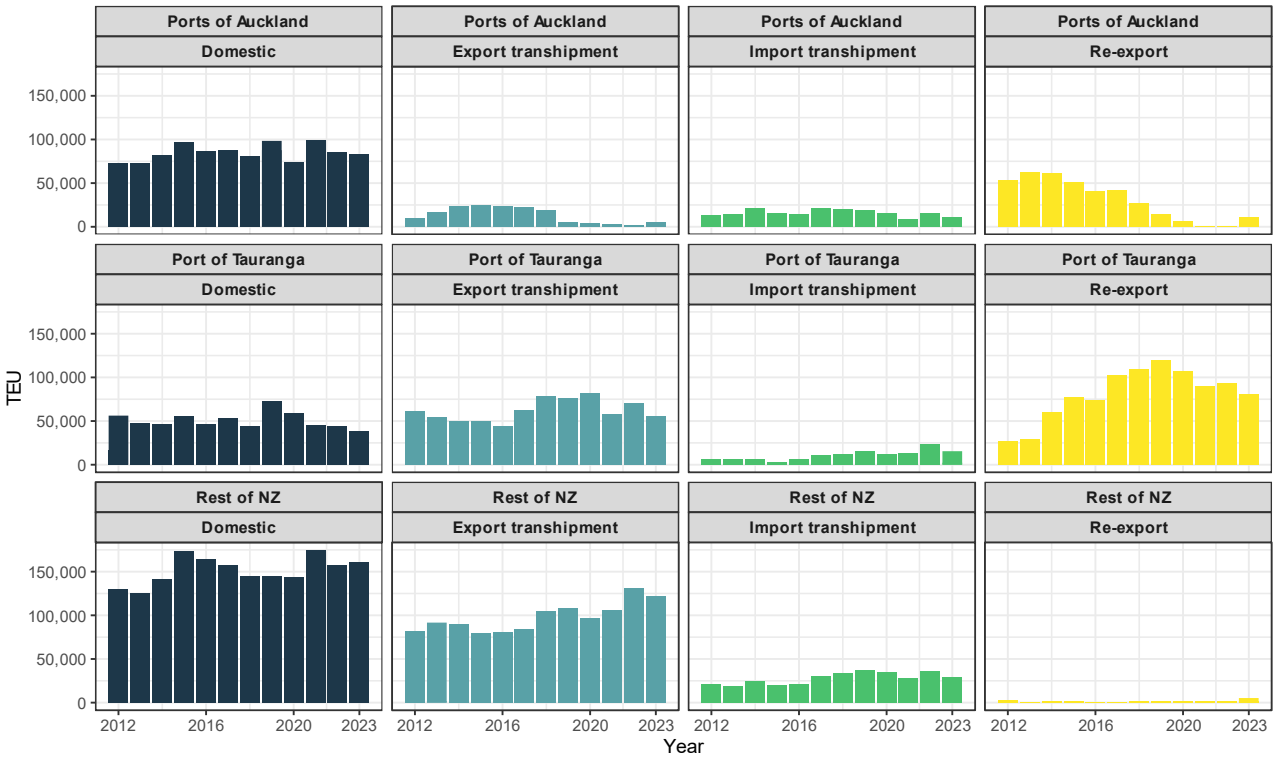
[36] . The Ministry of Transport also includes diagrams in their flows Supply Chain Dashboard glossary, which can aid comprehension of these.

Table 17 - Movement Classifications

Flow	Description	Economic Considerations
Domestic	Movements of goods within New Zealand. These are goods that are imported or produced and used domestically without crossing international boundaries.	Domestic trade is necessary for distributing resources and goods across different regions of New Zealand. This improves supply chain efficiency and ensures the availability of goods nationwide. Efficient domestic trade networks enable lower transportation costs and faster delivery times, enhancing the competitiveness of local businesses by enabling them to respond swiftly to market demands and reducing the cost of inventory holdings.
Import Transhipment	Goods that are brought into New Zealand ports from overseas and then transferred to another vessel to be shipped to a third country. These goods are not intended for the domestic market but are passing through New Zealand's ports.	Transhipment allows for the consolidation of cargo into larger shiploads that benefit from economies of scale, reducing the cost per unit of shipping and making the shipping process more efficient, which can benefit New Zealand producers and consumers. It can also stimulate growth in related industries such as shipping services, logistics, warehousing and freight forwarding.
Export Transhipment	Where goods that originate in New Zealand are moved from one New Zealand port to another before being discharged, loaded onto a different vessel and then exported to a final destination abroad. The main purpose of export transhipment is to consolidate smaller shipments into larger ones, optimising shipping efficiency and costs. This can be particularly beneficial for smaller exporters who might not have the volume to fill large containers or ships.	By consolidating smaller shipments into larger ones, export transhipment allows exporters to utilise container space more efficiently. This is particularly beneficial for small to medium-sized enterprises (SMEs) that do not produce enough output to fill entire containers but can significantly reduce per unit shipping costs through consolidation.
Re-export	This flow includes goods that are imported into New Zealand, may undergo some form of processing or repackaging, and are then exported to another country.	Re-exports can be advantageous for the economy as they add value through local processing or consolidation services, which can enhance the trade balance and support local businesses.

Figure 7-19 shows all TEU, both full and empty around New Zealand between 2012 and 2023. The Port of Auckland plays a key role facilitating domestic trade and a moderate role with transhipments and re-exports, though the scale of re-export operations has reduced over the period.

Figure 7-19 - Seaport Trade Flows within New Zealand[37]



[37] FIGS only collects data for POAL from Fergusson terminal, not the multi-cargo wharves.

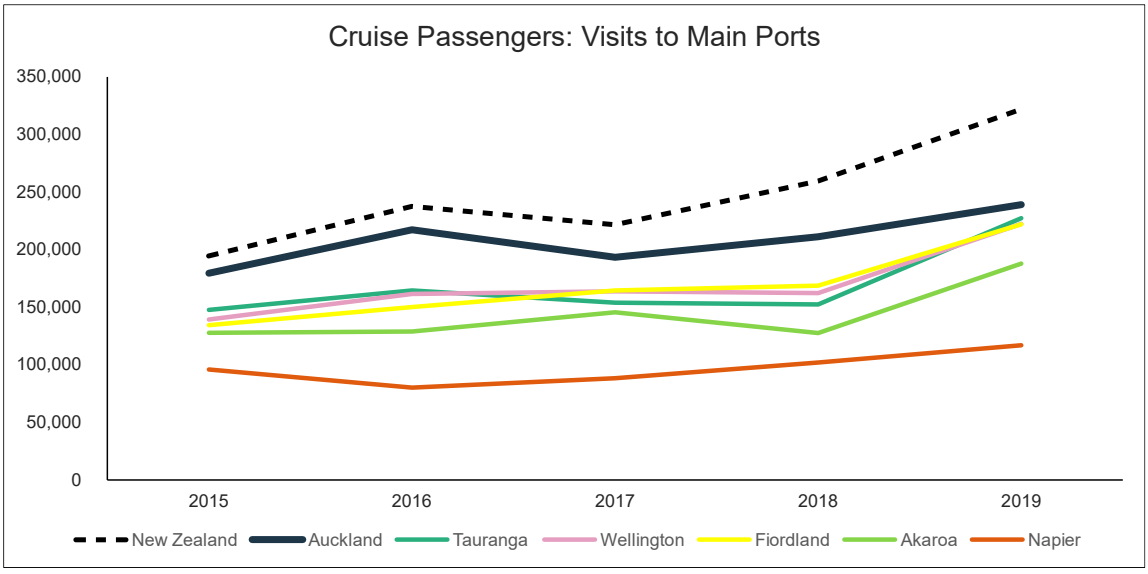
Annex 6: Cruise

The most recent publication of cruise visitor numbers by Stats NZ was in 2020 with the final quarter covering March 2020. That quarter reflects the impact of Covid-19 on numbers so has been excluded from the analysis below. The Port of Auckland has continued to collect and publish some high-level annual data, which is referenced in our report. For this analysis, however, we use the historic data. The Ministry for Transport freight and logistics dashboard publishes data on ship voyages and port visits, from which we can estimate passenger trends. However, this omits evolving trends over time and key differences such as ship type and origin, which determine passenger numbers and spend.

Figure 7-20 shows where cruise passengers disembarked from 2015 – 2019, with the dotted line representing total arrivals. In 2019, of the 320,000 unique passengers and crew who landed in New Zealand, 240,000 (74%) stopped in Auckland. Total passenger numbers have been growing faster than visitors to any given port, suggesting the sector is diversifying. Between 2015 and 2019, the percentage of all passengers who came to New Zealand who went to Auckland fell from 92% to 74%. For each of the six ports shown below, this share fell or remained constant. Several explanations are possible. Trip offerings could be becoming increasingly bespoke or capacity constraints could be forcing ships to forgo certain ports.

In 2019, only 15% of port calls in New Zealand are made by ships with more than 3,000 passengers. Half of port calls are made by small ships, categorised as those with fewer than 1,000 passengers.[38] Failure to invest in infrastructure to accommodate larger ships will risk New Zealand losing out on the burgeoning cruise tourism market.

Figure 7-20 - Cruise Passengers: Visits to Major Ports

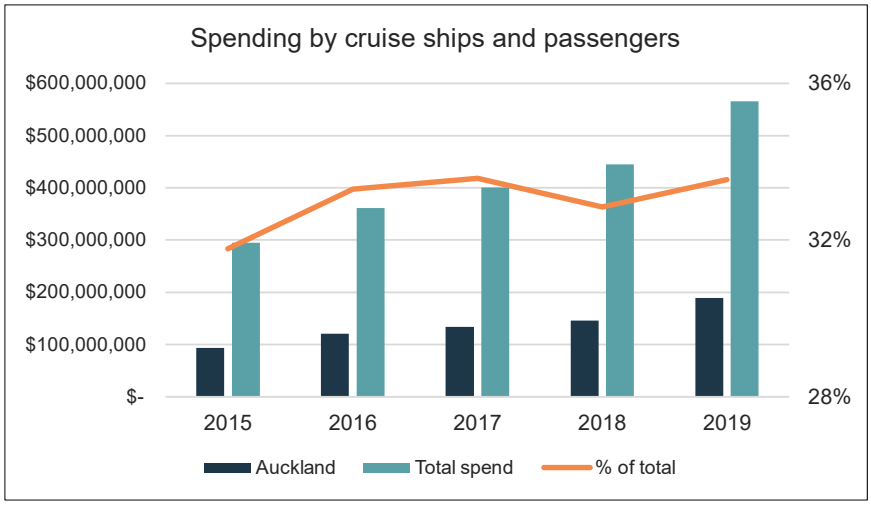


Both cruise ships – through crew spend and provisioning – and their passengers spend money when in Port. Figure 7-21 shows this breakdown for spend between Auckland and the rest of the country, demonstrating the historic share of spending which has taken place in Auckland. There was a sharp increase between 2019

[38] Cruise Aotearoa New Zealand Strategy 2040 – New Zealand Cruise Association (2024)

and 2020 but this is likely to be skewed by the start of the Covid-19 pandemic and is omitted from the graph below. Between 2015 and 2019, around 33% of spending took place in Auckland.

Figure 7-21 - Spending by Cruise Ships and Passengers



Annex 7: Composition of Trade

The composition of trade and relative role of New Zealand's ports has changed over time. Figure 7-22 and Figure 7-23 show the evolution of each major port's share of import and export trade.[39] The Port of Auckland has maintained a consistent share of imports, retaining between 36% and 42% of the total over the period. However, its share of exports has decreased substantially. In 2007, 23% of export value was handled by the Port of Auckland, with Tauranga responsible for just 19%. In 2023, however, Tauranga's share was 43% and the Port of Auckland had fallen to 7%.

There is greater concentration within the import market as six ports handle more than 2% of the total. For exports there are nine ports handling more than 2% of total. This patern can be attributed to several economic and logistical factors that differentiate the dynamics of export from import operations. The dispersal of New Zealand's export-oriented industries across various regions encourages the use of multiple ports to optimise logistical efficiency and reduce inland transportation costs. These industries utilise ports that are geographically closest to their production sites to expedite shipments and minimize costs associated with overland transport. In contrast, imports tend to be concentrated in fewer ports due to economies of scale in shipping and the spatial nature of demand. Major urban centres, most notably Auckland, not only have more developed port facilities but also serve as key distribution hubs for imported goods. This centralisation supports larger volume handling and more sophisticated logistics, which smaller ports might not economically justify. Thus, imports are more concentrated because it is cost-effective to utilise major ports, which have better infrastructure and connectivity for bulk handling and subsequent distribution through domestic transport networks.

Furthermore, the difference in port usage patterns also reflects the strategic positioning of ports with respect to international shipping routes. Ports that are directly on these routes, such as the Port of Auckland, are more likely to receive large volumes of imports. Meanwhile, exports can be more flexibly routed through smaller or regional ports that might be closer to the source of goods yet still accessible to international shipping lanes, albeit with potentially higher transshipment costs.

This represents a significant reduction in value against a backdrop of growing total exports. The real value of total exports (in 2023 prices) grew from $57 billion in 2007 to $69 billion in 2023 ($37bn to $69bn in nominal terms). The Port of Auckland's exports fell from $13bn to $5bn in real terms over this period.

[39] For clarity, ports with less than 2% of trade over the period are aggregated into a single group, "NZ various". Taken together, these ports handle 5 – 10% of exports and 6 – 9% of imports.

Figure 7-22 - Ports Share of Imports

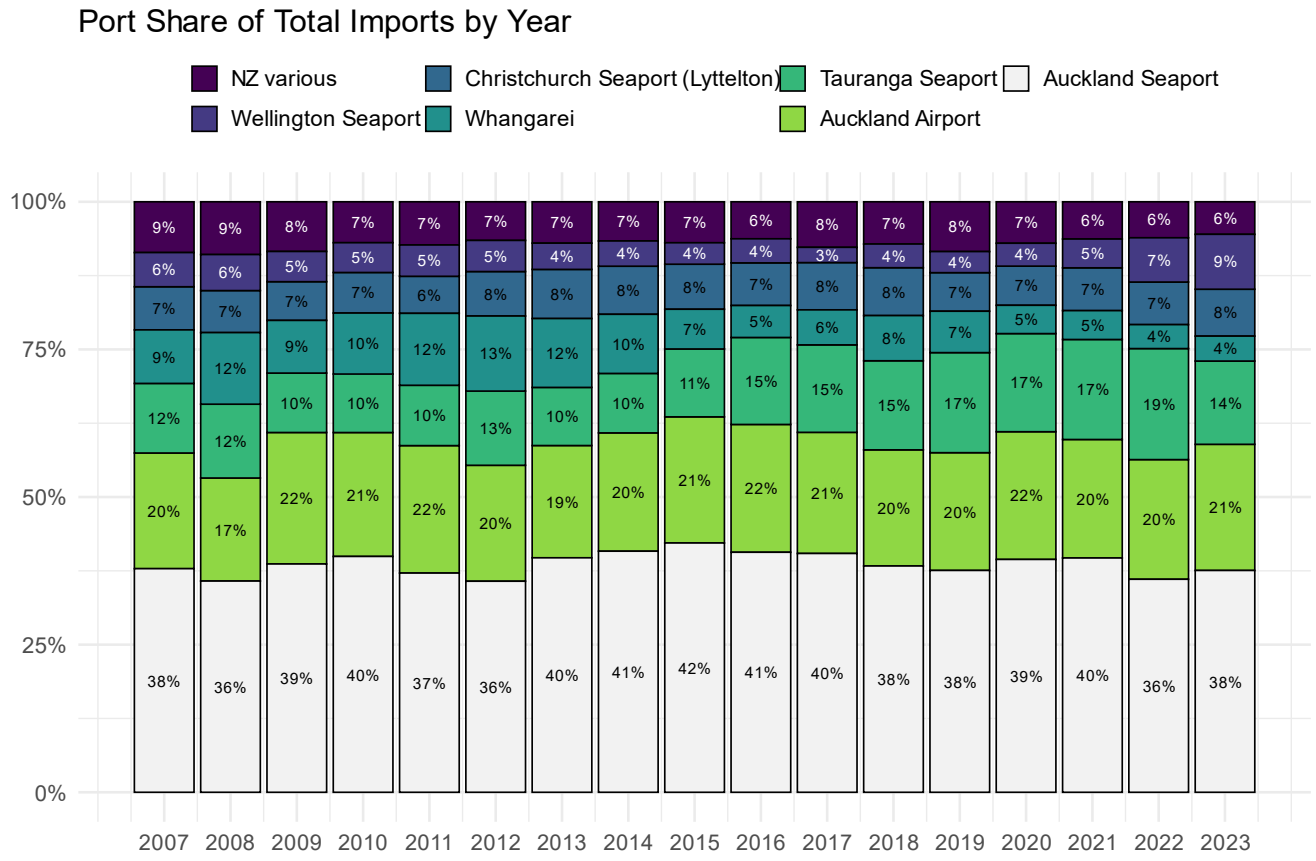


Figure 7-23 - Ports Share of Exports