

# Supplementary FIGS report - empty container origins

June 2015



## Empty container origins and their movement

### Background

The material in this report adds to the previous empty container report. It has been designed to provide a baseline of information so we can better understand the impact of larger container ships, and a hub and spoke port network if it eventuates.

The first section of this report shows the current patterns of empty container imports. The services that bring empty containers from Australia and drop them off at the east coast ports are clearly important, as are the deliveries of empty reefer containers from Asia. If either of those services were to become concentrated on fewer ports, then we could expect more land and coastal movement of containers within the country.

If more containers are imported and exported through hub ports in the future, then there will be more movement of containers to and from those hub ports within New Zealand. The FIGS reporting already covers sea movement of containers between our ports, and this report adds an analysis of land movements.

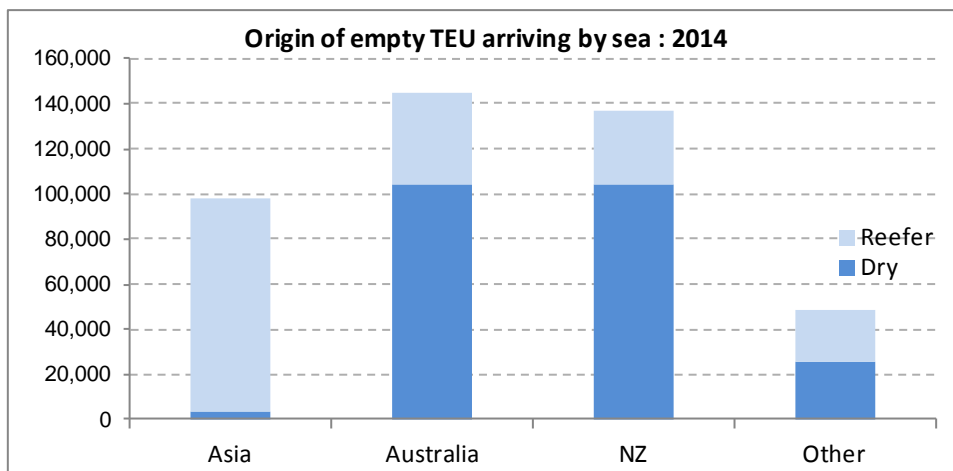
### Empty containers arriving by sea

How many of our directly imported empties arrive at a port from Australia? How many from somewhere else? How many do we move along the coast as a domestic movement?

The patterns of the empty reefer and dry containers arriving at NZ ports are quite different:

- 50% of our empty reefer TEU arriving by sea come from Asia<sup>1</sup>
- 33% of our empty reefer TEU arrive by sea from other overseas origins
- 44% of empty dry TEU arrive from Australia
- 44% of empty dry TEU arrive by domestic movements<sup>2</sup> from other NZ ports

Around 52% of the imported empty TEU were dry containers, and 48% reefers.

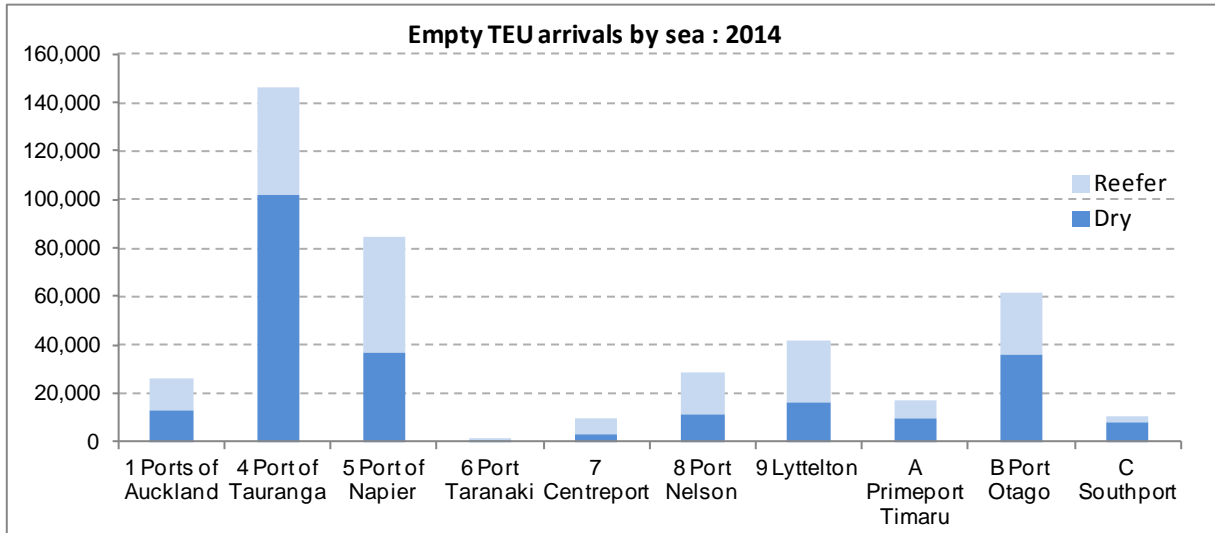


<sup>1</sup> import transshipments are when a container arrives by sea from overseas and is discharged, and is immediately shipped to another NZ port on another ship without leaving the initial port or having its contents altered. They are counted against the first port in this analysis

<sup>2</sup> domestic moves are when a container enters a NZ port by land, is shipped to another NZ port and exits that port by land

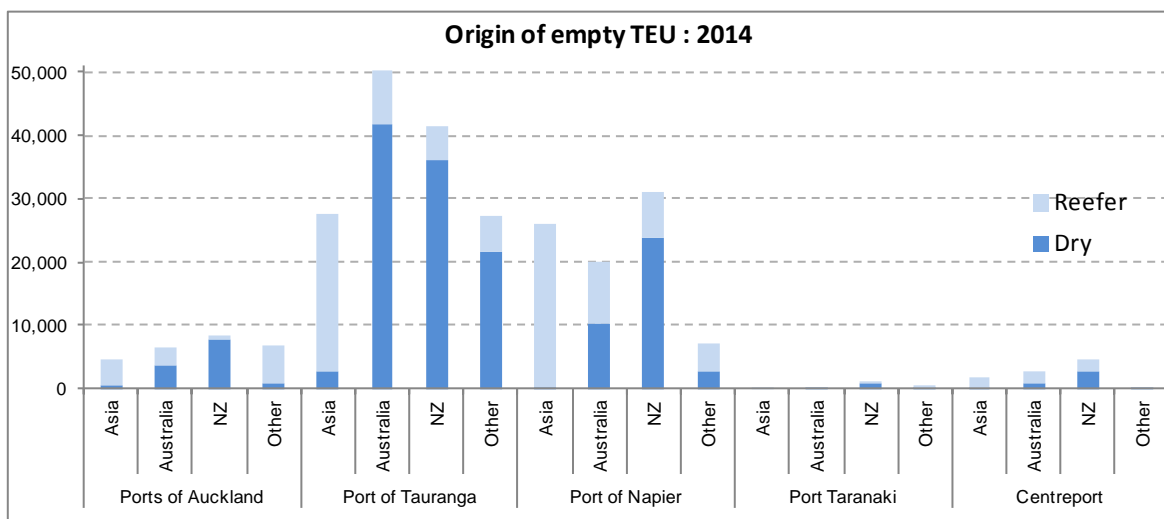
The mix varies by port:

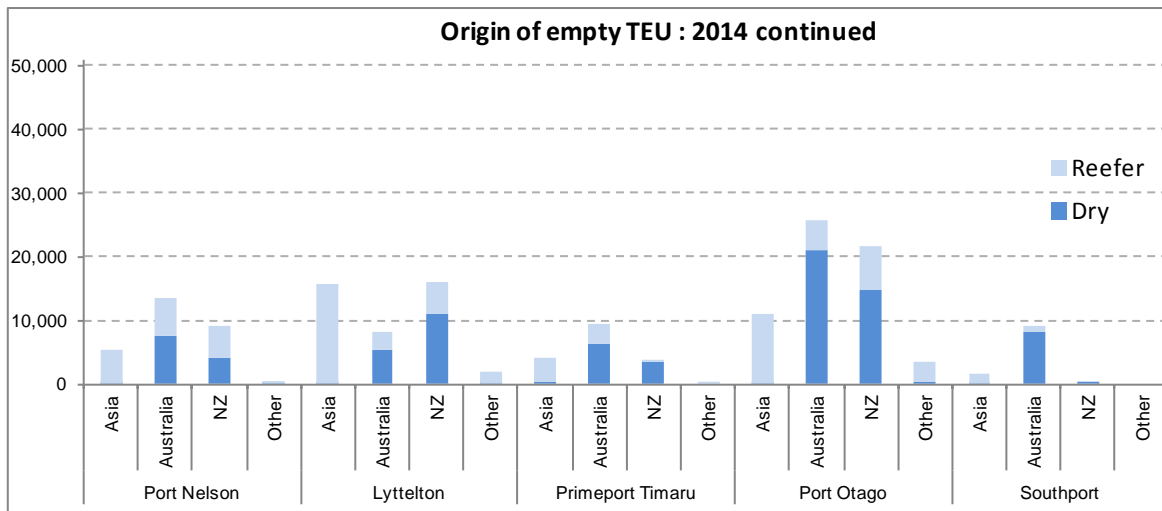
- Napier, Nelson and Lyttelton have more empty reefers arrive than dry containers
- Auckland is 50:50
- the others have more dry containers arrive than reefers
- Tauranga receives the greatest number of empties (the most dry containers and the second greatest number of reefers)
- Napier is our second largest receiver of empties, partly due to the need for reefers
- Napier and Tauranga received almost half the reefers between them
- Auckland receives a low numbers of empty imports, reflecting that it is our largest import port



The origin mix of the empties arriving by sea also varies:

- Southport get almost all of its empty containers by sea from Australia
- Timaru sources most of its empties from Australia
- Centreport, Nelson and Port Otago get just over half their empty arrivals from overseas
- Tauranga takes a lot of empties, the majority from overseas. Australia is the largest single source. Some of the arrivals from within NZ will not be to be used to export goods, but rather to head out empty
- Auckland and Napier get similar numbers from Asia, Australia and NZ
- Lyttelton has quite a low share from Australia





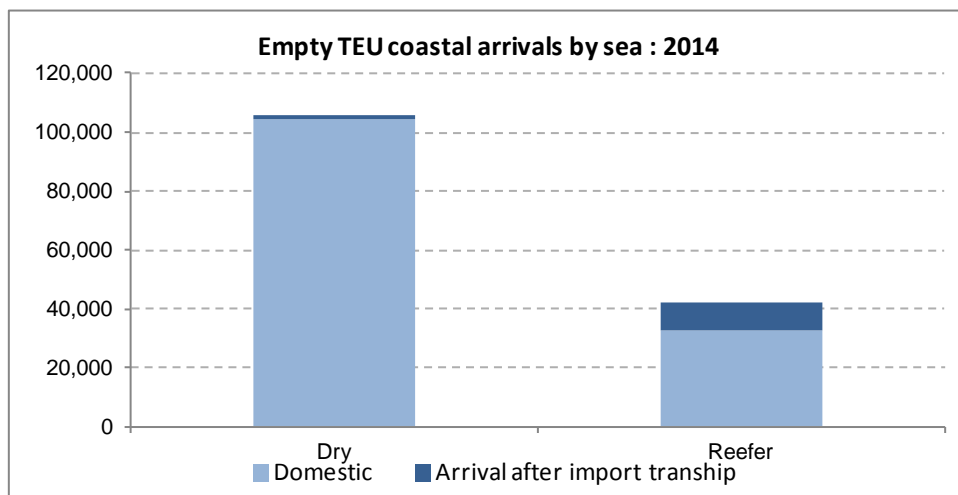
### Coastal movement of empty containers for use within NZ

Coastal deliveries of empty containers for use within NZ (domestic moves or deliveries after a import transshipment) are mainly dry containers, and are predominately domestic moves<sup>3</sup> rather than import transshipments<sup>4</sup>.

An example of a domestic move is a container arriving at Ports of Auckland by road, being loaded and shipped to Lyttelton and then heading into Christchurch.

An example of a container arriving after an import transshipment is a container that arrived in Auckland by ship from Fiji, and is then loaded onto another ship and unloaded in Lyttelton before heading into the city. The arrival is regarded as being in Lyttelton, and the entire transshipment is counted as one arrival in the graph that follows.

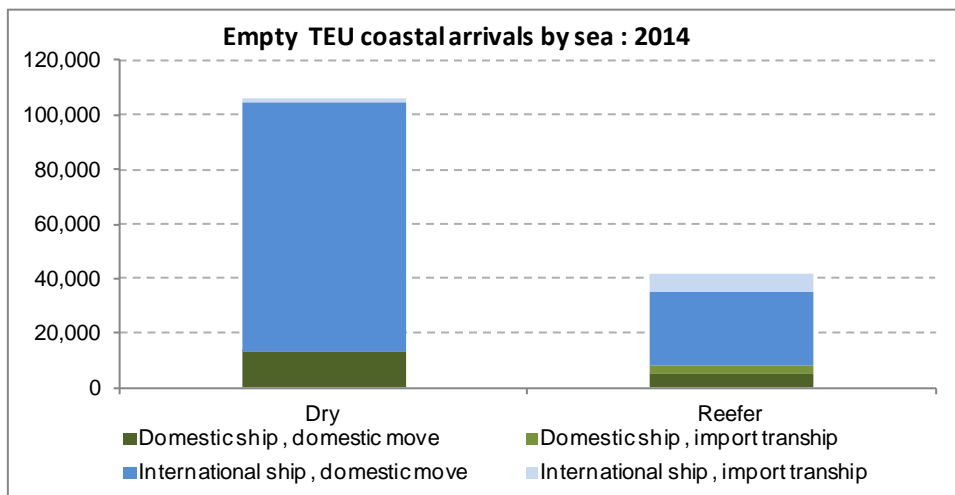
Import transshipments are broken down by origin and NZ port in the next section.



<sup>3</sup> domestic moves are when a container enters a NZ port by land, is shipped to another NZ port and exits that port by land

<sup>4</sup> import transshipments are when a container arrives by sea from overseas and is discharged, and is immediately shipped to another NZ port on another ship without leaving the initial port or having its contents altered. It is only counted against the final port in the arrivals analyses

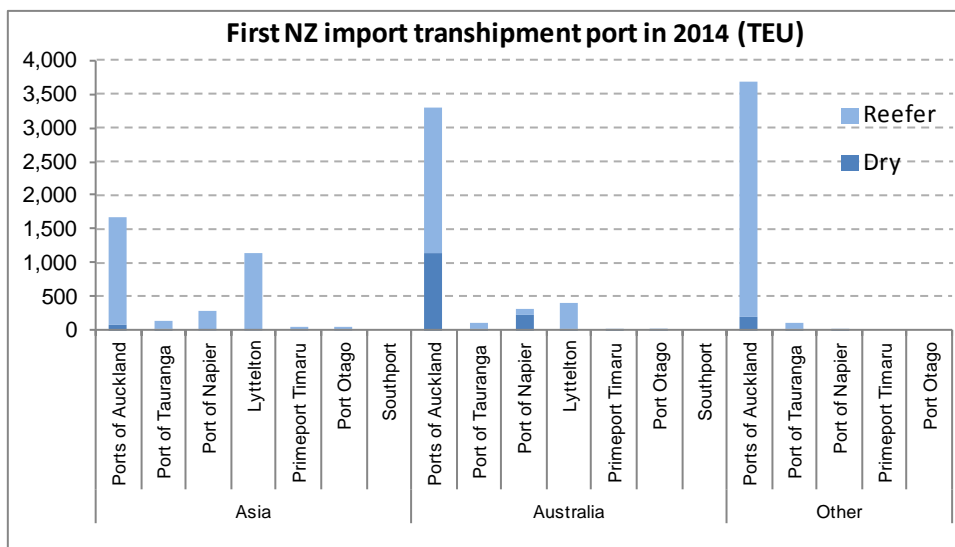
The coastal deliveries are predominately done by international ships.



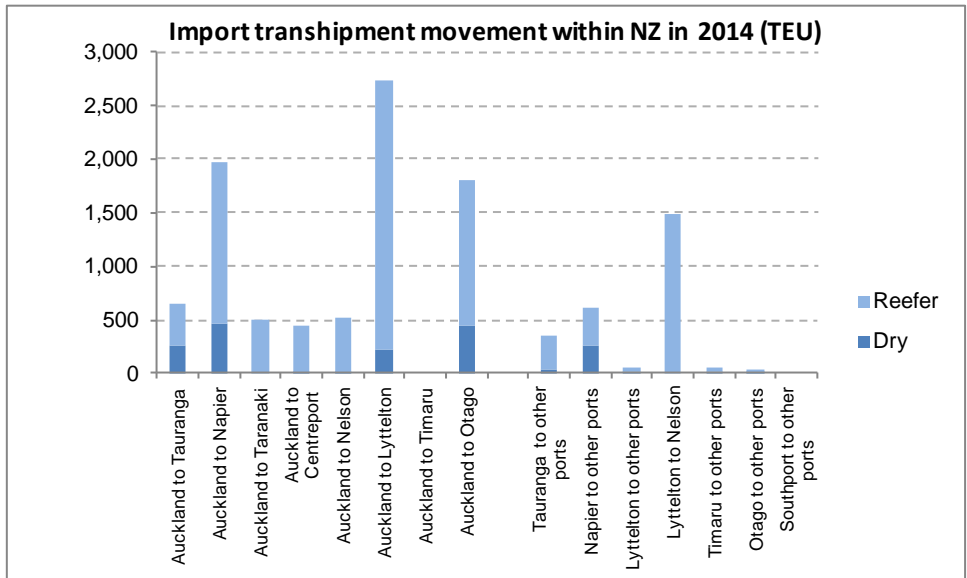
### Import transhipments of empty containers

The previous section identified that sea movement of empty containers between NZ ports are far more likely to be domestic moves rather than import transhipments.

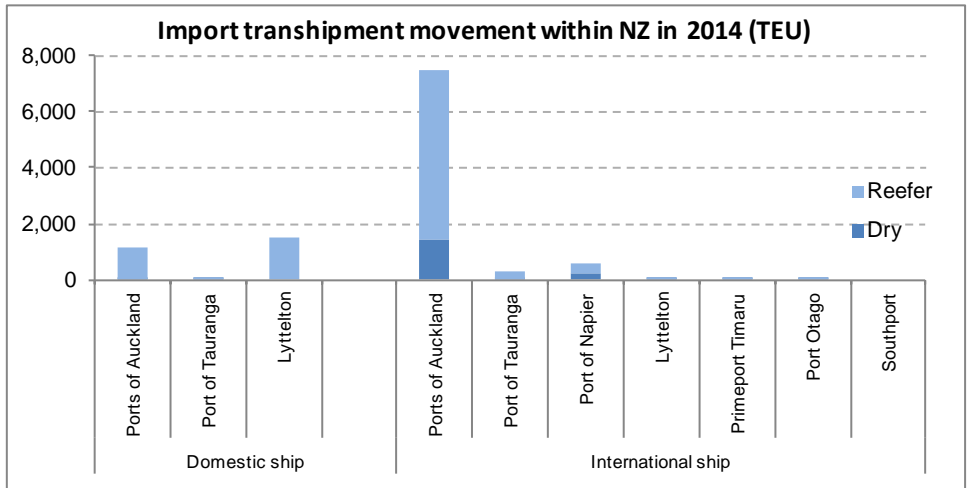
In 2014 import transhipments of empty containers came from Asia (29%), Australia (37%) and other regions (North America and the Pacific Islands, 34%). The vast majority landed first at Ports of Auckland. The graph that follows shows that arrivals in Auckland from Australia and places other than Asia dominate the first step in import transhipments.



Most of the import transhipment deliveries were to Napier, Lyttelton, Port Otago and Nelson.



The international shipping lines do most of the domestic legs of import transhipments.



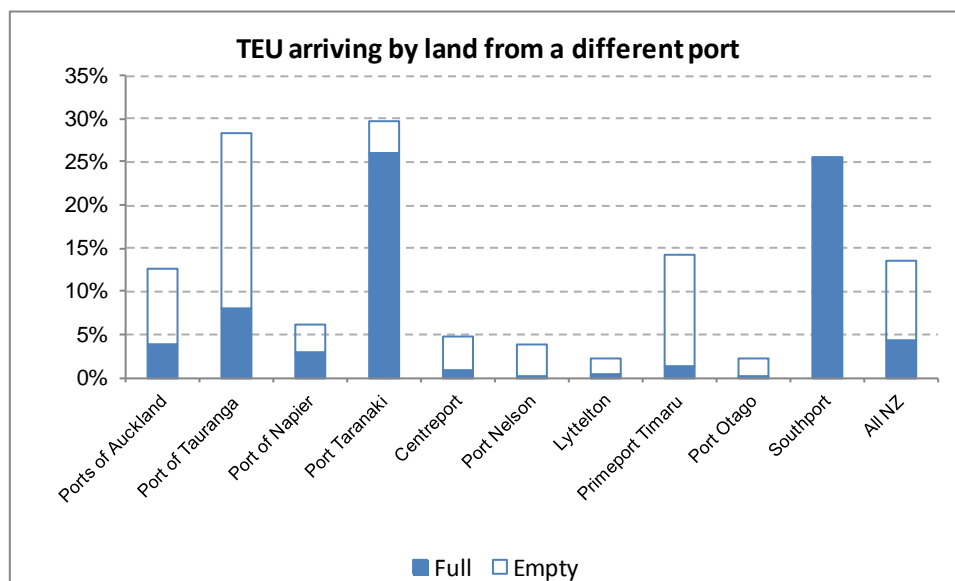
## Full and empty containers that moved between ports by land in 2014

This section covers inter-port land movement of full and empty containers as this has not been covered in any previous FIGS reporting.

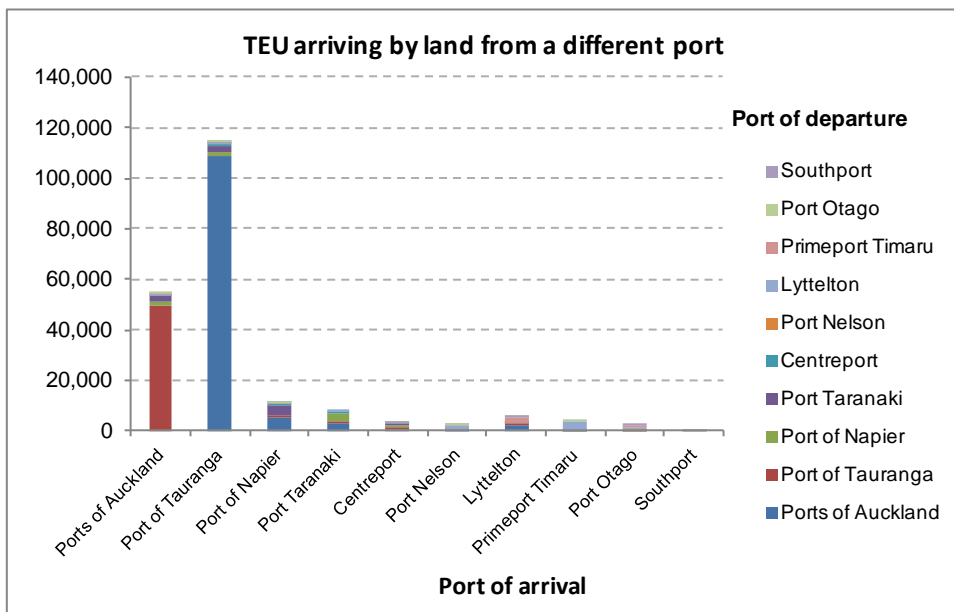
The land movement of containers between ports is not common. Across New Zealand just under 14% of TEU arriving by land at a port left from a different port.

The containers that leave one port by land and eventually arrive at a different port may have been unloaded somewhere during their journey, and could have been loaded again. However the majority of containers arriving at the destination port are empty.

Most of the empty containers are exported after arriving at the second port (59% in 2014), but some are shipped to another NZ port (20%) or leave the port by land again (22%).



Auckland-Tauranga and Tauranga-Auckland make up the vast majority of containers that leave one port and move to another by land.



The patterns for the other ports can be seen after Auckland and Tauranga are removed from the graph. The largest remaining transfers are:

- the two way traffic between Napier and Taranaki
- Auckland to Napier, Taranaki and Lyttelton
- Lyttelton to Timaru

The volumes are not large.

