

NEW ZEALAND CUSTOMS SERVICE

TIME RELEASE STUDY 2023



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Acronyms

CCA	Customs Controlled Area
CEDO	Customs Export Delivery Order
DO	Delivery Order
FCL	Full Container Load
JBA	Joint Border Analytics
LCL	Less than Container Load
MAWB	Master Air Waybill
NZCS	New Zealand Customs Service Te Mana Ārai O Aotearoa
R&A	Revenue and Assurance
TEU/FEU	Twenty-foot/Forty-foot Equivalent Unit (sea cargo container)
TRS	Time Release Study
TSW	Trade Single Window
ULD	Unit Load Device (air cargo can)
WCO	World Customs Organization

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EXECUTIVE SUMMARY

A time release study (TRS) is a World Customs Organization (WCO) method to measure Customs performance in clearing cargo. Performance is measured based on the time it takes to clear cargo from the time of arrival of the means of transport.

The Revenue and Assurance (R&A) group of the New Zealand Customs Service (Customs) was commissioned to carry out a TRS in 2023.

The main reasons for the 2023 study were to:

1. Demonstrate certainty to industry partners and international trade of the processing time for import and export clearances in New Zealand
2. Refine the baseline measures and methodology used in 2022
3. Share the findings and experiences from this study, including innovations to the methodology and reporting, with the WCO and other international forum to contribute to the knowledge on Customs involvement in international trade flows
4. Share the outcomes with all interested parties.

This study targeted international cargo vessels and flights for the week **Thursday 31 August to Wednesday 06 September 2023** (7 days).

During this week, a total of 12,554 import entries and 5,618 export entries were reported for air and sea cargo:

- A high percentage, 93.9% of sea cargo import entries for full containers (FCLs), were lodged and cleared by Customs before arrival into New Zealand
- For air cargo import entries, 78.3%, were cleared before arrival. This reflects the much shorter flight times from overseas departure to the aircraft landing
- 592 import entries were cleared on the day of arrival of the aircraft. On average these entries were cleared 10 hours and 17 minutes after the arrival of the aircraft.

Other key measures include:

- 87.7% of export entries for FCLs shipped by sea were lodged at least 48 hours before loading on the vessel for export
- 100% of export entries for air cargo were cleared before departing New Zealand.

Context and Guidance Notes for Interpretation of Data

Customs has a range of output performance measures set out in the Estimates of Appropriations documents prepared annually by the New Zealand Treasury. Performance against these measures is reported in the New Zealand Customs Service Annual Report.

The Goods Clearance and Enforcement Output Class measure 2.01 sets a minimum percentage of trade transactions (other than those referred for compliance checks) processed (including assessment against business rules and intelligence alerts) within a specified timeframe. For 2023/24, Customs is expected to process 98% within 5 minutes¹. The results from this study confirmed 98.82% of entries lodged were cleared within 5 minutes.

¹ The Customs Annual Report 2023 measured the standard timeframe for 2022/23 as 30 minutes. This has changed for 2023/24 where the reduced timeframe to 5 minutes reflects the improvement in the timeliness of our trade transaction processing.

The following are guidance notes that should be used when interpreting TRS data in this report:

- The overall clearance time for cargo includes Ministry for Primary Industries' (MPI) processing times due to their inclusion in the joint border systems database. Any selected transactions highlighting high processing times were analysed for specific cause of delays and by which border agency.
- Customs regulations allows for the lodgement of entries any time in advance of the importation or exportation of cargo. The timeliness of advanced Customs clearance is reliant on entry lodgement by customs brokers or importers/exporters for cargo related to the TRS week.
- The measures and statistics from this study replicate the study carried out in 2022. However, in some instances, methodologies have been refined for the 2023 study, meaning direct comparisons between 2022 and 2023 are not always possible. Furthermore, the findings from this study can be used as a new baseline set of times for comparison to future studies; and to make changes to further improvements in the processing and clearance of cargo.
- The study comprises of a week-long 'snapshot' of trade transactions where variances can occur within this time period across multiple TRS reporting periods. This can contribute to outliers and variances with the data set that is collected and analysed for each study.

Notwithstanding some of the caveats set out above, it is still possible to observe general trends across the studies when analysing the movement of cargo. One continuing trend is that for both 2022 and 2023 TRS studies, a high percentage of import entries of sea cargo were lodged days in advance of the vessel's arrival.

Overall, this TRS has identified that Customs' processes and management of clearing cargo remains efficient and does not unnecessarily constraint the movement of legitimate cargo across the border.

Key Events and Times 2023: Export Transactions

Exports FCLs - Measures	Sea 2022	Sea 2023
Receipt to entry lodgement	2d 7h	1d 15h
Entry lodgement to load	5d 10h	5d 0h 14m
Entry lodgement to clearance	4m 07s	8m 12s
Receipt to load	7d 17h	6d 16h
Receipt to departure	8d 5h	7d 2h

Exports - Measures	Air 2022	Air 2023
Entry lodgement to departure	1d 13h	1d 12h
Entry clearance to departure	1d 13h	1d 12h
Entry lodgement to clearance	2m 40s	3m 18s

Key Events and Times 2023: Import Transactions

Imports FCLs - Measures	Sea 2022*	Sea 2023
Entry lodgement to arrival	-7d 12h	6d 13h
Entry clearance to arrival	-7d 7h	6d 12h
Entry lodgement to clearance	5h 08m	1h 21m
Arrival to Gate-out	5d 10h	2d 20h

Imports - Measures	Air 2022*	Air 2023
Entry lodgement to arrival	5h 30m	18h
Entry clearance to arrival	8h 44m	16h 47m
Entry lodgement to clearance	3h 14m	1h 6m

Note 1: Clearance refers to Customs and MPI entry clearance

Note 2: Hours and minutes are rounded up or down

Note 3: TSW processing takes seconds (estimated)

Note 4: Large outliers can affect the mean or average measure

Note 5: Only network problems would delay the processing of TSW lodged entries in any significant way

Note 6 *: The 2022 TRS used measures that reflected negative values as time before the arrival of the vessel/aircraft. This has been changed for the 2023 TRS where the measures themselves have been re-worded to reflect whether an activity occurred before or after arrival. For example, in the table above, for Sea Cargo in 2022, the entry was lodged 7 days 12 hours before arrival, whereas in 2023, it was 6 days 13 hours before arrival. Explanatory notes will accompany the use of negative values in subsequent tables in this report.

SECTION ONE: SETTING THE SCENE

Introduction

Customs clearance of cargo is a significant activity in facilitating or holding up trade at the border. A time release study (TRS) is a method endorsed by the World Customs Organization (WCO) to measure Customs Administrations' performance in clearing cargo via a standardised process. Performance is measured based on the time it takes Customs organisations to clear cargo at the time of the arrival of the means of transport conveying that cargo.

This TRS measures New Zealand Customs Service's contribution and commitment to trade facilitation which benefits and grows the economy.

Background

This is the fourth comprehensive TRS carried out by the New Zealand Customs Service.

The first two studies occurred in 2009 where one study looked at the New Zealand Customs Service (Customs), while the second study was conducted jointly with the Australian Customs Service.

A TRS was carried out in 2022 to provide an updated benchmark of Customs' clearance processes to allow an assessment of effectiveness over time. This 2023 study builds on, and refines, the methodology developed in 2022. Accordingly, due to some of these changes in methodology, any comparisons between 2022 and 2023 TRS data should focus on high-level trends as opposed to minor changes in individual metrics.

Aims and Objectives

The main aims of the study are to:

1. Provide data on clearance times and the physical movement of cargo across the border
2. Refine the baseline measures and methodology used in 2022, and apply this to future studies
3. Share findings with external audiences.

The results from this study can be used to:

1. Assess the effectiveness of newly introduced and modified techniques, procedures, and technological changes
2. Establish an updated baseline dataset to measure and benchmark Customs' performance in trade facilitation.

Methodology

The methodology of this study followed the WCO's *Guide to Measure the Time Required for the Release of Goods* Version 3, 2018 and adapted to local conditions, cargo volumes, and flows.

Phase One involved planning and preparation including a trial exercise:

- Establishment of a Working Group from Border Operations, Joint Border Analytics (JBA), and R&A to co-ordinate the 2023 study
- Engagement with selected port companies and air cargo carriers on the study and request for the supply of data
- Collection of data for a two-day trial (May 2023)
- Work by JBA to verify/validate and automate some processes based on the trial.

Phase Two involved:

- Completion of JBA work and automation of some processes
- Completion of the work in preparation for the actual TRS.

Phase Three involved:

- The actual TRS (August/September 2023)
- Collection of data from various sources
- Merging and checking of the datasets
- Analysis of the data including the application of changed methodologies for partial comparison
- Publication of the TRS report.

Scope of the Study

Date Range: The week chosen in advance for the study was: **Thursday 31 August to Wednesday 06 September 2023** (7 days).

For the calculations of the measures the times are in New Zealand standard time.

Cargo Scope: The scope of the study looked at imported and exported air and sea cargo that required a declaration to Customs in the form of a standard import or export entry type, and that was discharged or loaded at selected New Zealand sea ports and international airports.

Air Cargo: Data on selected international flights that arrived or departed and carried cargo during the TRS week was collected and used in this study. The data was sourced from selected air cargo operators.

Sea Cargo: Data on containerised cargo (FCL and LCL) was sourced from selected port companies where a container vessel called at that port during the TRS week to unload or load containers. Other cargo types – breakbulk, bulk – were excluded from the study.

Exclusions: Some Customs data was also excluded. Only cargo where the times could be confirmed and validated were included in this study.

Inclusions: This study is to assess Customs' role in clearing cargo from arrival to when Customs releases that cargo from the control of Customs. Due to the joint border management system, the role of other border agencies, such as Biosecurity New Zealand (Ministry for Primary Industries) who are also involved in the clearance of cargo at the border were included in the clearance times. However, outliers in significantly high processing times have been analysed to identify reasons for the delay.²

Entry Type: Only cargo that was declared and cleared by a Customs import and export entry through Trade Single Window (TSW) were included in the study. Clearance by other entry types or methods were excluded.

TSW entries: TSW is the standard system where international cargo is reported to Customs and other border agencies. Import and export entries are lodged electronically into TSW by a customs broker or importer/exporter. TSW undertakes checking of the entry against business rules, alerts, and risk assessment processes and then rejects or accepts the entry. If the entry is clean and valid it is cleared.

Only a cleared entry can generate an electronic Delivery Order (DO). This is the time that a clearance is given for the entry and cargo. The DO authorises the delivery of imports from the port (Gate out) or loading of exports onto the vessel or aircraft.

Time stamps are electronically recorded and saved to a database for TSW lodged entries. The required information including times were extracted from this database. If an entry is adjusted an updated version is created, this new version becomes the current version.

Legislation: The *Customs and Excise Act 2018* (the Act) and The *Customs and Excise Regulations 1996* (the Regulations) sets out the legal requirements in respect to imported and exported goods.

² Reasons include entries held and referred for a Customs examination, entries are a replacement of an earlier cancelled entry or is a duplicate entry.

Part 4(21) of the Regulations specifies the time which entry of goods applies for imports. In the case of goods imported by sea or air, the entry must be made **before the date** on which the goods are imported **or within 20 working days after** the date of importation. An entry is deemed to have been passed when a DO message is generated by Customs.

Part 4(28) of the Regulations specifies the deadline for entry of goods for export. The deadline for which an entry of goods to which section 89(1) of the Act applies must be made is **48 hours before** the goods are shipped for export. An entry for goods exported under section 89(1) of the Act is deemed to have been passed when a DO (or 'CEDO') is generated by Customs in respect of that entry.

Other Data Sources: The Customs systems do not record details or times for all events in the importation of cargo. Data was therefore sourced from other parties.

Selected port companies provided the vessels details, times, discharge list and gate out times recorded when containers left the port. Air cargo data was sourced from selected air cargo operators.

The additional data provides a more complete picture of the cargo clearance process.

SECTION TWO: ANALYSIS OF CONTAINERISED SEA CARGO

Imports: Key Data and Measures

Sea Cargo: Key Events, Measures and Times

Imports Sea Cargo: Events, Measures and Times				
Event/Measures	FCLs		LCLs	
	2022	2023	2022	2023
Import entries	3,358	4,987	1,174	358
Containers	5,626	7,764	1,182	367
Container vessels	22	25	13	17
Entry lodgement to arrival (mean)	7d 12h	6d 13h	1d 18h	4d 5h
Entry clearance to arrival (mean)	7d 7h	6d 12h	1d 14h	4d 4h
Entry lodgement to clearance (mean)	5h 8m	1h 21m	3h 48m	1h 3m
Arrival to discharge (mean)	1d 10h	1d 1h	1d 5h	1d 1h
Arrival to gate-out (mean)	5d 10h	2d 20h	4d 11h	2d 5h
Entry cleared before arrival	91.5%	93.9%	64.2%	91.8%

Note: Hours have been rounded up or down.

Data from 5,345 import entries via sea cargo were matched with data from port companies consisting of 4,987 FCL and 358 LCL containers. The data sets were integrated to analyse the process through Customs with the physical movement of cargo on the ports.

The mean or average time calculated for 'entry clearance to arrival' for sea cargo FCLs was **6 days 12 hours**. This means these entries were cleared and released by Customs (and other border agencies) over 6 days **before** the arrival of the vessel carrying that cargo.

Customs regulations allow lodgement and clearance of imported goods at **any date before import**. Determination of this advance lodgement time is at the discretion of the customs broker or importer. This compares to the regulations that were in force from earlier studies (prior to the 2022 TRS) where import entries could only be lodged 5 days before import.

The opportunity to receive advance clearance continues to result in a significant majority of sea cargo entries cleared in advance – with 93.9% of imported sea cargo FCLs cleared before arrival.

During this study, there were import entries lodged and cleared well in advance of the date of arrival or date of import. The earliest time an entry was lodged and cleared was 38 days 10 hours before the arrival of the vessel carrying that cargo. The last entry lodged and cleared was 8 days 20 hours after the arrival of the vessel. These variances can have an impact on calculating the average, and accordingly, the median or mid-point measure may provide a more accurate measure – in this study, the median was 5 days 21 hours before arrival.

The unloading of containers commences soon after the vessel is tied up and other arrival formalities completed. During the TRS week, the earliest a container was unloaded recorded 43 minutes after arrival while the latest time a container was unloaded from a vessel was 3 days 6 hours after arrival.

On average, FCLs remained on the port for 1 day 19 hours after unloading from the vessel. This gave a range from the earliest gate out time of 7 minutes 57 seconds to over 13 days after unloading.

LCL cargo is different to FCL cargo and is analysed separately. However, the Customs processes for reporting the cargo are the same and the port processes are similar. This study found 91.8% of entries for LCL cargo were cleared pre-arrival at an average of 4 days 4 hours before the arrival of the vessel.

Imports: Port Data

Sea Cargo: Key Events and Measurements by Port for FCLs

Imports Sea Cargo: Key Events and Measurements by Port for FCLs								
Event/Measures	Auckland	Tauranga	Napier	Wellington	Nelson	Lyttelton	Timaru	Otago
	2023	2023	2023	2023	2023	2023	2023	2023
Import entries	2,895	898	134	216	12	744	19	69
FCLs unloaded	4,221	1,602	226	304	13	1,166	88	144
FCL type TEU/FEU	1,910/2,311	636/966	87/139	153/151	13/0	505/661	82/6	78/66
Container vessels	9	9	5	4	1	6	1	3
Entry lodgement to arrival (mean)	6d 8h	5d 23h	6d 3h	5d 22h	8d 15h	8d 9h	4d 21h	7d 2h
Entry clearance to arrival (mean)	6d 7h	5d 21h	6d 2h	5d 22h	8d 15h	8d 7h	4d 18h	7d 0h 43m
Entry lodgement to clearance (mean)	1h 18m	2h 1m	1h 34m	19m 9s	seconds	58m 25s	seconds	1h 15m
Arrival to discharge (mean)	1d 14h	8h 20m	9h 5m	11h 12m	13h 37m	10h 57m	19h 37m	11h 40m
Arrival to gate-out (mean)	3d 13h	2d 11m	2d 12h	2d 13h	2d 17h	1d 21h	2d 0h 24m	1d 23h
Entry cleared before arrival	93.8%	92.0%	96.5%	96.4%	100.0%	97.2%	77.3%	93.1%

There are some variations in the measures by individual ports; however, a high percentage of import entries were lodged and cleared before the arrival of the vessel for all ports. Shipping line schedules will impact on the number of vessels that call into a port per week.

The split between container sizes was 56:44 - 56% or 4,300 of containers imported were 40-foot and 44% or 3,464 were 20-foot.

Exports: Key Data and Measures

Data from 2,908 export entries, and data received for 6,383 FCL and 60 LCL containers from port companies, were analysed for the clearance and movement of cargo during the TRS week. **87.7%** of export entries for FCLs were lodged at least 48 hours before loading.

On average, export entries for FCLs were lodged with Customs 5 days 14 minutes before loading and cleared by Customs 5 days 6 minutes before loading. There were 37.2% of export entries cleared by Customs before the containers were receipted or delivered (Gate-in) at the port.

There were 60 containers recorded as LCL and loaded at five ports – Auckland, Tauranga, Nelson, Lyttelton, and Port Otago. LCL cargo is reported at least one day earlier than FCLs. Due to the small number of LCL containers, loading ports, and entries, no detailed analysis was carried out.

Sea Cargo: Key Events, Measures and Times

Exports Sea Cargo: Key Events, Measures and Times				
Event/Measures	FCLs		LCLs	
	2022	2023	2022	2023
Export entries	2,952	2,848	102	60
Containers	6,863	6,383	63	60
Container vessels	25	24	12	16
Receipt to lodgement (mean)	2d 7h	1d 15h	-7.0h	-12h 28m
Receipt to clearance (mean)	2d 7h	1d 16h	-7.2h	-12h 18m
Receipt to load (mean)	7d 17h	6d 16h	6d 3h	4d 15h
Entry lodgement to load (mean)	5d 10h	5d 0h 14m	6d 10h	5d 4h
Entry clearance to load (mean)	5d 9h	5d 0h 6m	6d 10h	5d 3h
Entry lodgement to clearance (mean)	4m	8m 12s	seconds	17m 34s
Entry clearance to depart (mean)	5d 23h	5d 10h	6d 18h	5d 9h
Entry cleared before receipt	37.6%	37.2%	63.1%	70.0%
Entry lodged 48 hours before load	91.3%	87.7%	92.3%	91.7%

Note 1: Hours have been rounded up or down

Note 2: Negative values reflect when the entry lodgement or clearance occurs before the export cargo is receipted.

Exports: Port Data

Sea Cargo: Key Events and Measurements by Port for FCLs

Event/Measures	Auckland 2023	Tauranga 2023	Napier 2023	Wellington 2023	Nelson 2023	Lyttelton 2023	Timaru 2023	Otago 2023
Container vessels	5	12	4	4	1	6	1	3
FCLs loaded	370	3,560	178	255	237	1,085	233	465
FCL type TEU/FEU	284/86	1,216/2,344	79/99	177/78	83/154	355/730	36/197	158/307
Export entries	221	1407	124	104	121	500	96	275
Receipt to lodgement (mean)	-9h 1m	1d 2h	-4h 25m	2d 21h	11d 19h	-6h 12m	2d 14h	6d 7h
Receipt to clearance (mean)	-6h 48m	1d 2h	-4h 25m	2d 21h	11d 19h	-6h 12m	2d 14h	6d 7h
Receipt to load (mean)	5d 3h	6d 5h	2d 17h	6d 16h	16d 18h	4d 22h	8d 7h	10d 18h
Entry lodgement to load (mean)	5d 12h	5d 2h	2d 22h	3d 19h	4d 23h	5d 4h	5d 17h	4d 11h
Entry clearance to load (mean)	5d 10h	5d 2h	2d 22h	3d 19h	4d 23h	5d 4h	5d 17h	4d 11h
Entry lodgement to clearance (mean)	2h 13m	23s	seconds	seconds	seconds	seconds	seconds	seconds
Entry clearance to depart (mean)	5d 19h	5d 13h	3d 9h	3d 22h	5d 6h	5d 12h	6d 17h	5d 0h 7m
Entry cleared before receipt	50.8%	35.5%	38.2%	32.9%	8.4%	52.6%	6.9%	35.3%
Entry lodged 48 hours before load	96.1%	87.1%	54.5%	82.0%	100.0%	89.1%	91.4%	89.5%

Note: Negative values reflect when the entry lodgement or clearance occurs before the export cargo is receipted.

A high percentage of export entries were lodged at least 48 hours before loading at all ports. On average, containers were cleared by Customs before loading ranging from 5 days 17 hours to 2 days 22 hours.

The ratio between FCL container sizes was 27:73 – 27% were 40-foot and 73% 20-foot containers.

SECTION THREE: ANALYSIS OF AIR CARGO

Flight Details

During the TRS week, data from 692 international flights that carried air cargo was collected.

Auckland International Airport accounted for 91.91% (352 out of 383) of the flights that carried imported air cargo³. Export cargo was loaded onto 309 flights going to 79 countries during the week.

The unloading of aircraft followed a similar process for all flights. After 'on-blocks' - when the aircraft has stopped outside the terminal, passengers' luggage is usually unloaded first - the unloading of cargo follows, firstly unit load devices (ULDs – aircraft shipping containers or 'air cans'), followed by pallets, and bulk cargo. For departing aircraft carrying cargo, generally this process is followed in reverse.

Cargo is delivered to the air cargo operators' premises which are Customs Controlled Areas (CCAs) located near the Airport. Cargo is usually delivered to the CCAs 15 to 30 minutes after unloading from the aircraft.

Imports: TRS Events and Times

Air Cargo: Key Events, Measures and Times

Imports Air Cargo: Key Events, Measures and Times				
Event/Measures	Measure (mean)		Measure (median)	
	2022	2023	2022	2023
Entry lodgement to arrival	5h 31m	18h	13h 12m	19h 55m
Entry clearance to arrival	8h 38m	16h 47m	12h 14m	19h 12m
Entry lodgement to clearance	3h 12m	1h 6m	seconds	seconds

Note: Hours are rounded up.

A total of 7,209 import entries and 7,273 airway bills were used to calculate the times for air cargo imported during the TRS week.

Data on some of the events (compared to containerised sea cargo) in the movement of air cargo were not available. This resulted in fewer measures; however, the key TRS measure from arrival to clearance was able to be calculated.

The mean/average time from 'entry clearance to arrival' was **16 hours 47 minutes** before the arrival of the aircraft – this accounted for 78.3% of entries cleared before arrival.

³ Due to the high volume via Auckland International Airport, individual Airport measures are not reported. Air Cargo statistics and measures are reported at the national level.

Lodgement and clearance ranged from 12 days before the arrival of the flight carrying that cargo to 22 days after arrival. The timing of lodgement is determined by the customs broker or importer where there is no restriction on the advanced period to lodge an entry before arrival of cargo.

The time between finalising the manifest, loading the aircraft, flight times, receiving all the information and completing the import entry provides a bigger constraint on the ability to pre-lodge and receive clearance before arrival for air cargo, which is why the pre-clearance percentage is not as high as sea cargo.

Exports: TRS Events and Times

Air Cargo: Key Events, Measures and Times

Exports Air Cargo: Key Events, Measures and Times				
Event/Measures	Measure (mean)		Measure (median)	
	2022	2023	2022	2023
Entry lodgement to departure	1d 13h	1d 12h	1d 3h	1d 1h
Entry clearance to departure	1d 13h	1d 12h	1d 3h	1d 1h
Entry lodgement to clearance	2m 40s	3m 18s	seconds	seconds

A total of 2,710 export entries and 2,710 airway bills were used to calculate the times for air cargo exported during the TRS week.

The time cargo is loaded onto the aircraft is not collected or recorded. The nearest event to this is the departure time of the aircraft. The mean/average time for 'entry clearance to departure' was **1 day 12 hours** before departure.

SECTION FOUR: SUMMARY

The 2023 study provides a useful assessment of the efficiency of Customs' (and MPI's) processes in the movement of clearing cargo for trade.

Lessons learned from the 2022 study led to changes to the methodology and some of the calculations. While this limits year to year comparisons at an individual metric level, the broad measures and results from this study are consistent with the measures and results from the earlier study. For instance, both studies confirm a high percentage of Customs entries for imports by sea are lodged and cleared before the arrival of the craft carrying that cargo. Exports by sea are, on average, lodged at least 48 hours before loading.

The Customs Annual Report 2023⁴ outlines the output measures and standards used to assess overall organisational performance. These are reviewed annually to make sure they are fit for purpose, accurately reflect the services Customs delivers, are relevant, and provide a quantifiable way of assessing performance.

From the 2022/23 reporting period, Customs was expected to process 98% of trade transactions within 30 minutes. Due to the improved timeliness of Customs processing and exceeding its performance measures, the specified timeframe has been reduced for the 2023/24 period and is now 5 minutes. These exclude entries referred for further Customs intervention.

During this study, 98.82% of all import and export entries lodged were cleared within 5 minutes.

These measures confirm Customs has good processes in place to facilitate the clearance of cargo and does not unnecessarily impede delivery of cargo that is reported correctly. These processes include electronic reporting, business rules, risk management and alerts systems, deferred payment schemes, post entry auditing capability, and on-going engagement with the importing and exporting industry at all levels in Customs.

An objective of this TRS was for JBA to automate, integrate and validate/verify the data that previously was a manual and time-consuming process. JBA have achieved this objective, and the next TRS planned in 2025 will test the automated processes.

Customs should look to utilise the findings for engagement with New Zealand businesses and other interested parties on increased trade facilitation.

Customs plans to hold a Time Release Study every two years (next one in 2025) and work with port and cargo operators to achieve this.

⁴ [customs-annual-report-2023.pdf](#)

SECTION FIVE: APPENDICES

APPENDIX A: Definitions

Key Event	Definition
Arrival	The date and time of the arrival of the means of transport (sea or air) conveying the goods at importation and when the goods enter Customs control. For sea cargo this means the docking time of the vessel at the port of discharge. The actual arrival time was supplied by the port authority. For aircraft this means the actual arrival time as recorded by the Customs passenger arrival report.
Clearance	The point at which all border agency controls are completed, and the consignment is completely unimpeded. This is the time recorded as final clearance. However, the goods may still be subject to holds by shipping lines and port companies.
Departure	The date and time of the departure of the means of transport (sea or air) conveying the goods at exportation. For sea cargo departure, this means the time that the vessel departs from the port of loading. For air cargo departure, this means the off-blocks time recorded for the aircraft.
Discharge (or availability)	This is the time recorded on the Discharge List when the container was physically unloaded off the vessel. The list and times were supplied by the port authority. This is also the time when the goods are physically available for delivery should the goods receive pre-arrival customs clearance.
Gate out (or delivery)	This is the time recorded when the container/cargo is physically transported out the port gates. Authority to remove the goods is presentation of a Customs DO.
Load	The date and time recorded by the port company when the container is physically loaded on-board the vessel transporting it to an overseas destination.
Lodgement	When a customs declaration or entry is reported and declared to the Customs Administrations including all relevant and required information to obtain the release of the goods. For TSW entries: this is the time stamp recorded when TSW accepts and writes the information to the database, recorded as Entry Header Lodgement Date.
MAWB accept	This is the time recorded by the airlines' air cargo operator. It is the first time recorded and assumed to be the time when the air cargo is accepted at the air cargo operators' site.
MAWB delivery	This is the time recorded from the airlines' air cargo operator. It is the first time recorded and assumed to be the time when the air cargo is delivered.
Processed (trade transactions)	This is the time taken for a Customs declaration or entry to pass through different stages from lodgement within TSW to a decision of final clearance or rejection.
Receipt (or Gate in)	The point at which goods are delivered to a place of export at the port of export and enter physical customs control at the Customs port or airport. For sea cargo this is time recorded by the port company when the container is receipted at the port gates. For air cargo it is the time recorded when the consignment is received from the shipper.

APPENDIX B: Additional Data

Sea Imports: Top 10 Overseas Economies 'Port of Loading'

Economy 'Port of Loading' - Imports FCLs

Economy	Vessels	FCLs	Entry cleared before arrival	Entry clearance to arrival (mean)	Arrival to gate-out (mean)
All Economies (54)	25	7,764	93.9%	6d 12h	2d 20h
China, Peoples Republic of	13	2,228	93.7%	6d 0h 43m	3d 11h
Singapore	9	1,484	96.4%	7d 18h	2d 17h
Australia	15	1,436	92.9%	5d 7h	2d 6h
Malaysia	9	925	94.9%	6d 14h	2d 18h
Hong Kong (Special Admin Reg)	3	269	96.7%	8d 13h	3d 2h
Korea, Republic of	8	227	95.6%	7d 3h	2d 17h
United States of America	7	217	83.4%	5d 20h	1d 19h
Taiwan	6	148	96.6%	5d 8h	3d 8h
Thailand	7	122	96.7%	6d 16h	2d 16h
Vietnam	7	94	96.8%	8d 13h	3d 10h

During the TRS week, containers were shipped (based on port of loading) from 54 economies. The top 10 overseas export economies accounted for over 92% of all import FCLs unloaded during this week.

A total of 25 container vessels made 38 calls to New Zealand ports during the week. Many of the vessels loaded cargo from more than one overseas port before arriving in New Zealand. Of the 25 vessels, 15 loaded containers at an Australian port.

Import entries for containers loaded in an Australia port were cleared the closest to the arrival time of the vessel at 5 days 7 hours. This may reflect the short transit times across the Tasman with fewer days between loading and arrival at a New Zealand port.

Some shipping schedules are fortnightly and monthly, and may not have been scheduled to call at a New Zealand port during the TRS week. Weekly statistics will change and are dependent on vessel calls and routes.

Sea Exports: Top 10 Overseas Economies 'Port of Discharge'

Economy 'Port of Discharge' - Exports FCLs

Economy	Vessels	FCLs	Entry lodgement to load (mean)	Entry lodged 48 hours before load	Entry cleared before receipt
All Economies (68)	24	6,383	5d 0h 14m	87.7%	37.2%
Malaysia	8	1,279	4d 11h	85.1%	36.2%
China, Peoples Republic of	13	874	5d 10h	86.8%	38.2%
Australia	7	703	5d 15h	91.1%	25.5%
Singapore	8	703	4d 9h	87.4%	44.1%
United States of America	6	511	6d 4h	82.0%	47.6%
Hong Kong (Special Admin Reg)	7	438	4d 23h	90.6%	27.2%
Indonesia	7	235	4d 22h	93.2%	46.0%
Taiwan	10	217	5d 17h	90.8%	34.6%
Fiji	5	207	5d 22h	92.3%	46.9%
Japan	11	179	5d 10h	97.8%	43.0%

The top 10 economies for export containers accounted for over 83% of all FCLs loaded during the TRS week. Like imports, the shipping schedules will change the port of discharge numbers weekly.

Sea Cargo: Entry Version Statistics

Imports and Exports Entry by Version Number

Imports: Version	Count	Percent	Exports: Version	Count	Percent
1	4,558	85.3%	1	2,569	88.3%
2	627	11.7%	2	266	9.2%
3	116	2.2%	3	40	1.4%
4	32	0.6%	4	20	0.7%
5	5	0.1%	5	10	0.3%
6	5	0.1%	6	2	0.1%
7	1	0.02%	7	1	0.03%
11	1	0.02%			

When data and information are entered into the Customs system to lodge an entry, an entry version is created and the time recorded. Every time that entry is changed or adjusted, a new version number is created and a new time recorded.

For most entries, it is the current or latest version that is used to calculate the TRS measures as clearance would have been completed within a very short timeframe after lodgement. However, for some entries, other versions and times are used as that version is the version where clearance for delivery or loading was authorised, for example, if Customs intervention had occurred or errors/changes by customs brokers or importers/exporters were resolved.

For the TRS week, a total of 4,558 import entries were lodged with 85.3% cleared under version 1. For exports, 2,569 entries were lodged and 88.3% cleared under version 1.

Air Imports: Top 10 Overseas Economies 'Port of Loading'

Economy 'Port of Loading' - Imports by AWB

Economy	AWBs	% Entry cleared before arrival	Entry clearance to arrival (mean)
All Economies (66)	7,273	78.3%	16h 49m
Australia	2,417	85.0%	16h 59m
Singapore	1,197	72.1%	8h 54m
United States of America	1,130	75.8%	11h 36m
China, Peoples Republic of	503	69.6%	20h 4m
Hong Kong (Special Admin Reg)	330	81.8%	1d 3h
United Kingdom	181	80.7%	1d 11h
Germany	175	87.4%	1d 10h
Malaysia	109	72.5%	21h 24m
Italy	105	91.4%	1d 14h
United Arab Emirates	98	63.3%	17h 20m

The economy 'port of loading' is based on the loading airport code and was sourced from the Customs import entry and data supplied by the air cargo operators. Some cargo may not have been loaded in that economy but would have been reloaded onto another aircraft in another economy before arriving in New Zealand.

The reverse applies to the economy 'port of discharge' for exported air cargo on the next table.

Air Exports: Top 10 Overseas Economies 'Port of Discharge'

Economy 'Port of Discharge' - Exports by AWB

Economy	AWB	% Entry cleared before departure	Entry clearance to departure
All Economies (79)	2,710	100.0%	1d 12h
Australia	882	100.0%	1d 8h
United States of America	524	100.0%	1d 14h
Singapore	169	100.0%	1d 4h
China, Peoples Republic of	158	100.0%	21h 21m
United Kingdom	78	100.0%	1d 9h
Hong Kong (Special Admin Reg)	74	100.0%	1d 13h
Fiji	73	100.0%	1d 15h
Canada	63	100.0%	1d 14h
United Arab Emirates	62	100.0%	2d 0h 47m
Japan	49	100.0%	1d 18h

The top three economies 'port of discharge' were noted to be Australia, United States and Singapore, with Australia accounting for nearly a third of overall destinations - 882 air cargo shipments out of the total of 2,710.

100% of export entries were cleared prior to departure of the aircraft. Cargo was generally cleared 1 day 12 hours prior to departure.

Date of Entry Clearance Relative to the TRS week

The graphs below illustrate the entry clearance for air and sea cargo during the TRS week to provide a comparison of activity with other time periods.

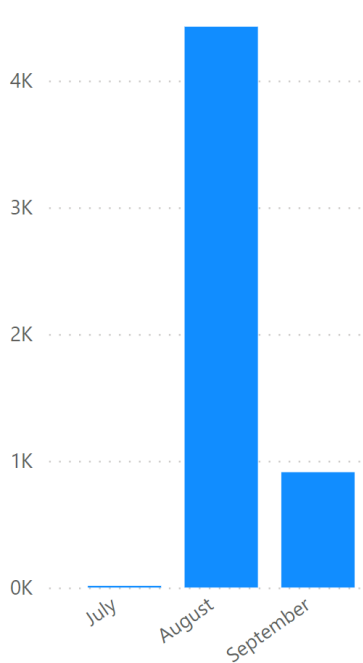
The selected Ports and Airport cargo operators work 24 hours, 7 days a week, and entries can be lodged and cleared 24/7 unless referred for border agency intervention.

No sea cargo export entry clearances were reported during 3rd/6th September. This appears to be primarily due to the 'weekend effect' (which is evident when comparing activity on 26th/27th August before the TRS week and 2nd/3rd of September), while the busiest day was a Friday.

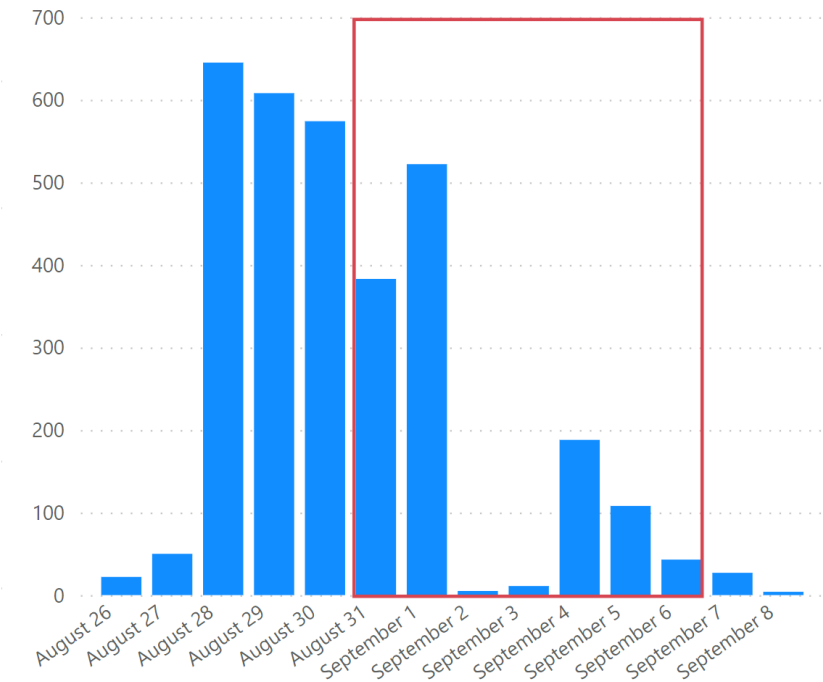
Sea Cargo

Imports

Entry Clearance by Month

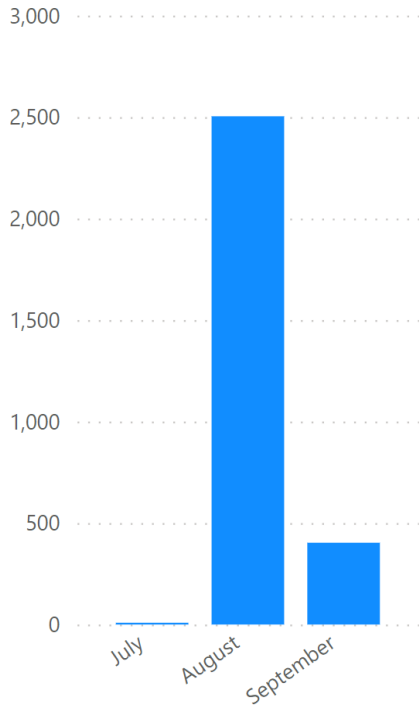


Entry Clearance for TRS week

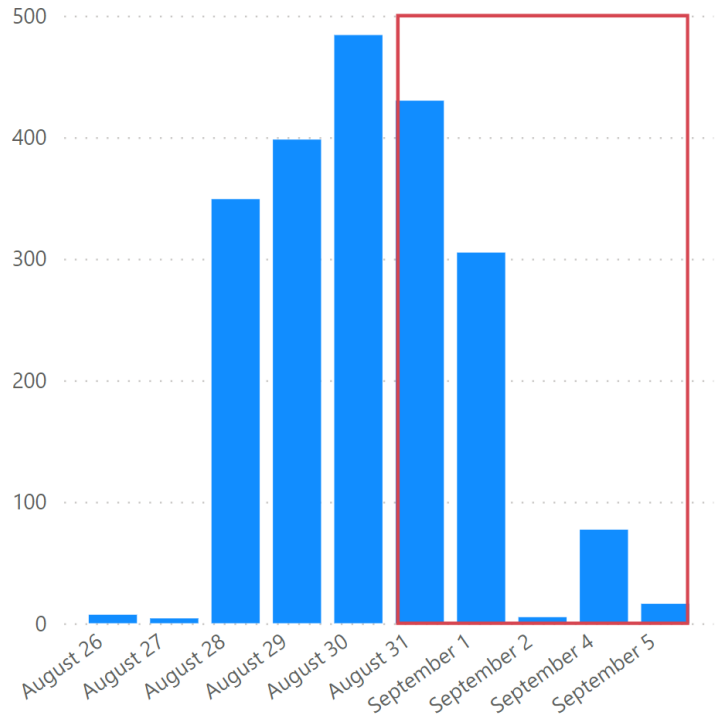


Exports

Entry Clearance by Month



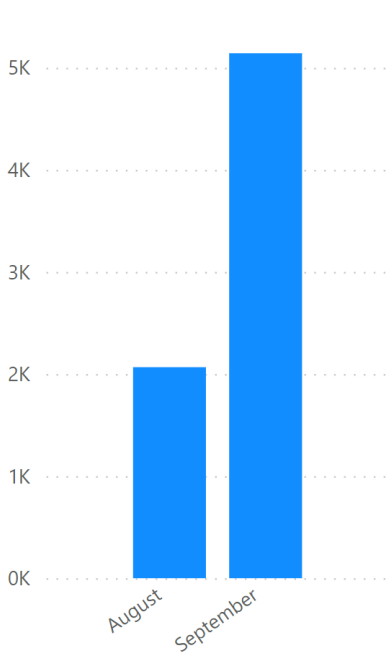
Entry Clearance for TRS week



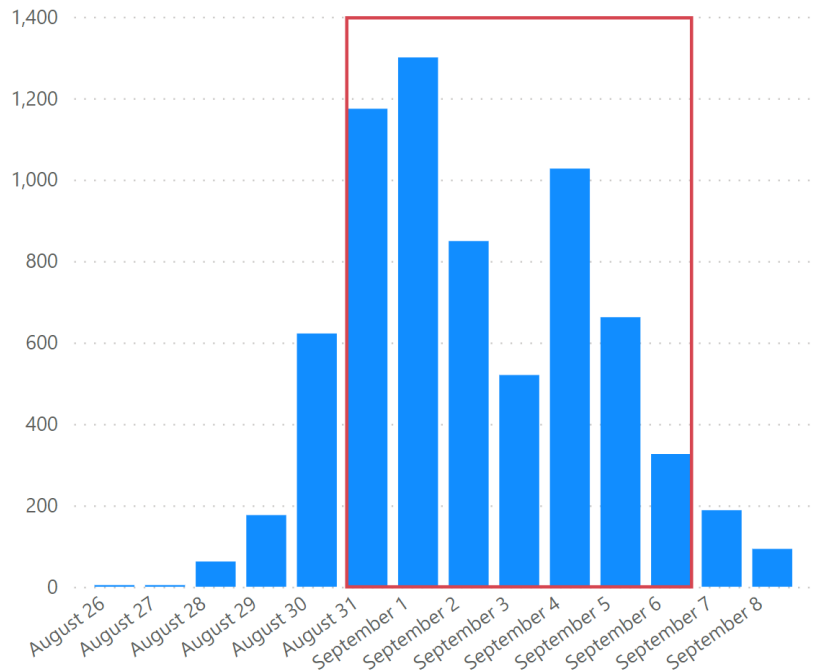
Air Cargo

Imports

Entry Clearance by Month

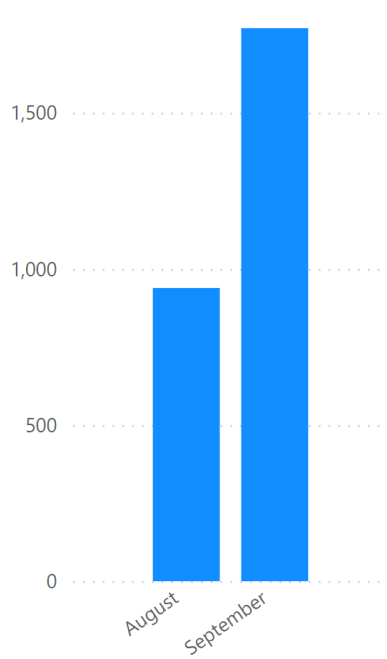


Entry Clearance for TRS week

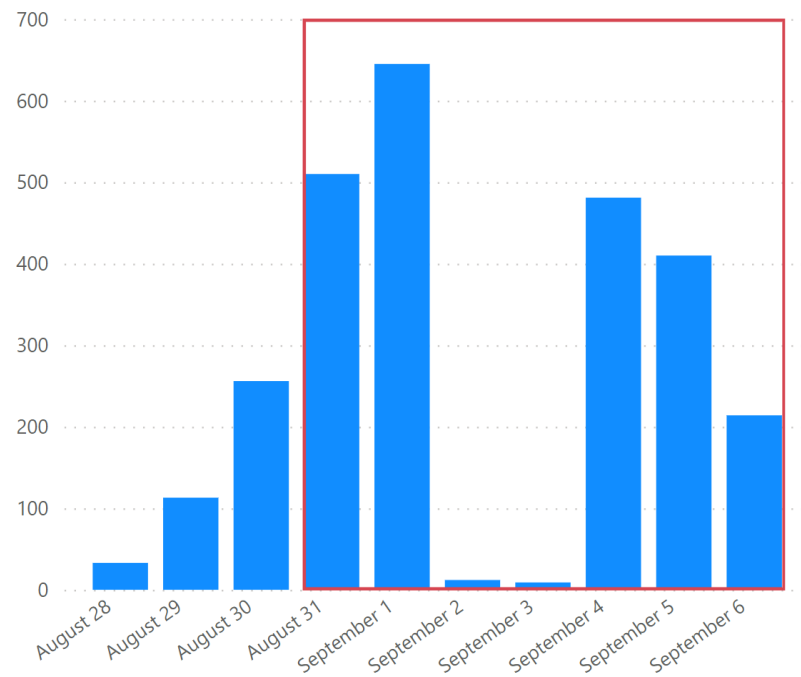


Exports

Entry Clearance by Month

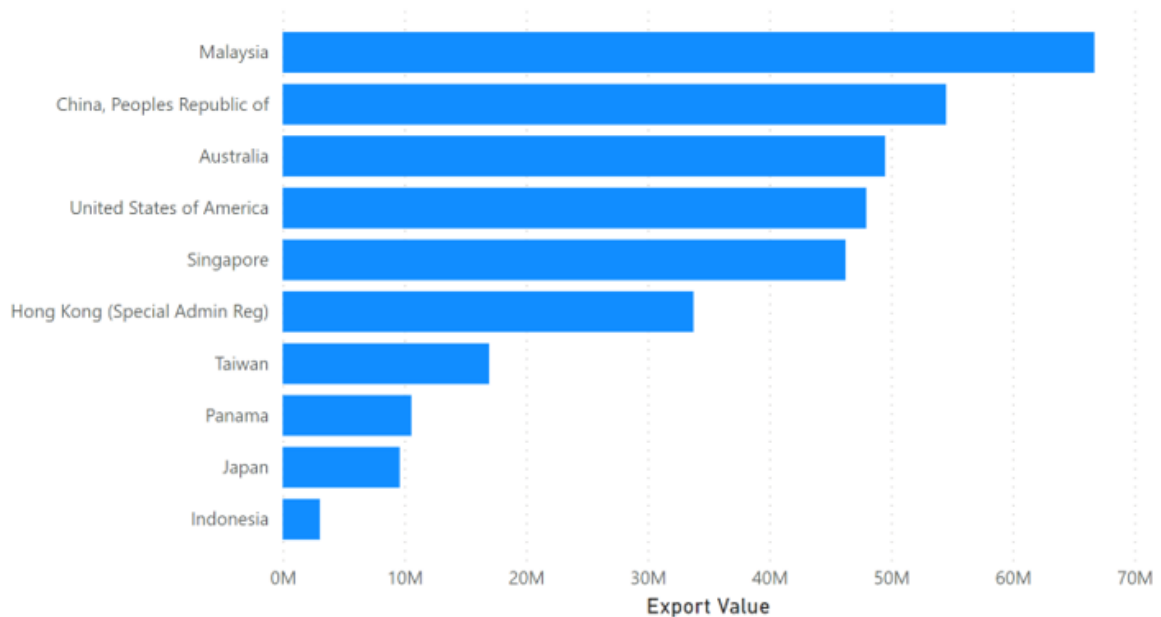


Entry Clearance for TRS week



Top 10 Exports Economies based on SES

Secure Export Scheme (SES) Shipments by Economy 'Port of Discharge'

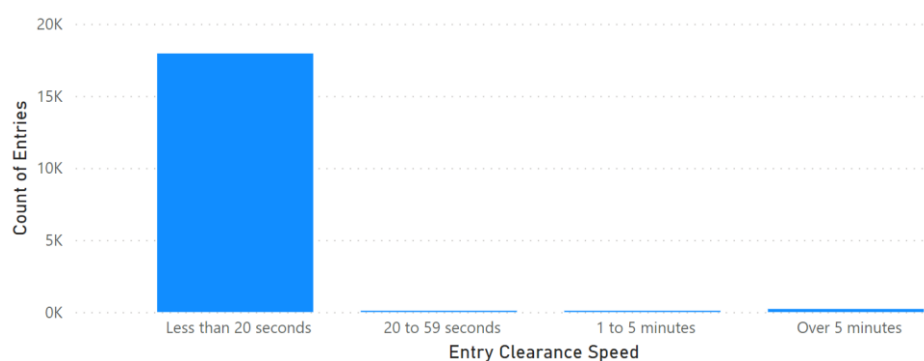


During the TRS week, most Secure Export Scheme exports were noted to have Malaysia as the economy 'port of discharge', followed by China and then Australia. Malaysia is noted to account for (NZD) \$66,704,774 of trade. China follows suit with (NZD) \$54,522,403 and Australia (NZD) \$49,516,233.

Entry Clearance Speed

All Import and Export Entries – Sea Cargo and Air Cargo

Entry Clearance	Total Entries	Total %
Less than 20 seconds	17,946	98.75%
20 to 59 seconds	10	0.06%
1 to 5 minutes	2	0.01%
Over 5 minutes	214	1.18%



98.75% of all entries during the TRS week were cleared in less than 20 seconds of being lodged, followed by a further 0.06% being cleared within 1 minute of lodgement.

An overall 98.82% of trade transactions were cleared within five minutes of lodgement.



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