



▼ International Trade

Ensuring Data Quality





ENSURING DATA QUALITY

INTRODUCTION

The purpose of this booklet is to:

- describe the data quality checks applied to international trade data prior to their publication.
- explain new procedures and charges applying to the investigation of client data queries.

International trade statistics are compiled from information supplied to Customs by exporters, importers or their agents. There are 1.2 million export transactions and 5 million import transactions recorded each year, many of which are small value records. Due to the sheer volume of transactions involved, and the limited resources available to undertake checks, the large bulk of transactions included in international trade statistics are 'as reported to Customs'.

ABS editing resources are mostly focussed on editing large value records. These edits are designed to ensure the quality and integrity of international trade data to at least the six digit level of the Harmonized System (HS).

The ABS recognises the importance of international trade statistics to a wide variety of statistical users. Except where data are protected by confidentiality restrictions, aggregate data are made available at a very detailed level. For example, the value of trade for each HS commodity code (eight digit for exports and ten digit for imports) is available by Australian port, by country, by overseas port. However, the quality of this very detailed data is less certain and the ABS is unable to guarantee that it is necessarily sufficient for all purposes for which it is used.

While the ABS receives many queries on detailed data from clients, it isn't cost effective or practicable for the ABS to investigate all of them. This booklet sets out the approach being adopted by the ABS to handle client data queries on international trade data. Forms are included to enable clients to request investigations into particular data. Clients should note the conditions under which these investigations are undertaken and the quality checks already performed on the data prior to its publication.

DATA QUALITY CHECKS

The ABS uses a multi-stage computer editing system to ensure the quality of international trade data for release. The data are subject to a variety of system checks to identify records with possible errors for further scrutiny and to correct known reporting errors.

The types of data quality checks that are applied include:

- identification of all transactions with a value of \$2 million or more. The details (including commodity code, country, state, value and quantity) of these transactions are checked, and, where necessary, confirmed with the exporter, importer or agent.
- legality checks on all transactions to ensure that valid and up-to-date commodity, country, state and port codes are reported, and that all mandatory fields are completed and are in the correct format.
- internal consistency checks e.g. to identify records where the gross weight is less than the net quantity, or to ensure that an export of aviation fuel for consumption on an international route has air as its mode of transport and an airport as its Australian port.



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DATA QUALITY CHECKS-*continued*

- tailored edits for specific commodities and / or countries and / or states. Examples include checks of minerals which are only mined in certain states; prohibited or illegal imports; and exports of commodities not manufactured in Australia.
- automatic adjustment of known recurring reporting errors. These may be applied as a result of an investigation which identified misreporting of commodity, country, state or quantity by particular exporters, importers or their agents. Recurring errors are also referred to Customs for audit action.

In addition, the international trade computing system stores unit value (value divided by quantity) ranges, for every commodity for which a quantity is required to be reported. The unit value ranges are calculated from previously edited transactions. Export transactions with values of \$250,000 or more, and unit values outside the unit value ranges, are checked by an editor. Similar edits apply to import transactions with values of \$1 million or more. Unit value edits are designed to identify errors in the reported value, quantity or classification of large value records.

Once all transactions are edited, aggregate tables are produced and the output compared with previous results. Aggregate data are investigated to explain and, if necessary, correct any unusual movements or features. For example, duplicate records may be detected and deleted, or significant commodity movements may be explained by price or volume changes.

The ABS may examine the quality of data reported for particular commodities or chapters of the HS classification. After contact with the relevant exporters or importers, a variety of solutions, including tailored edit checks, may be implemented. These investigations are time consuming and resource intensive and will only be undertaken for significant commodities or chapters, where there are known to be frequent and serious reporting problems.

The ABS has participated in bilateral reconciliation studies with the United States, the European Union, Japan and New Zealand. These studies involve comparing partner countries' estimates of their transactions with Australia, with Australia's estimates of its transactions with those countries. Their purpose is to identify the causes of data discrepancies and to quantify any major coverage or quality deficiencies, after taking into account known conceptual and methodological differences.

CLIENT DATA QUERIES

After the release of monthly trade statistics, the ABS usually receives a number of client requests to investigate cases of possible misreporting. Most relate to potential errors at the most detailed level of the commodity classification. The most frequently amended field is quantity, followed by classification and country details.

Client requests for data investigations will only be considered, if the value of the data queried exceeds \$250,000 in each month queried, and the cost of the investigation is met by the client.





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DATA QUALITY CHECKS-*continued* Clients interested in this service should be aware that the following factors will limit the ability of the ABS to confirm / amend trade data:

- the goods descriptions provided on export and import documentation is often not sufficient to determine the correct code at the most detailed level of the commodity classification. In these cases, the ABS is usually unable to obtain sufficient information to amend the classification code originally provided.
- transaction records are only processed for a limited period, due to the costs involved in storing and processing large amounts of data. After trade data are published, the latest month's export and import transactions are subject to amendment by further processing for six months before the records are archived. As a result, data quality queries which are not identified within those periods cannot be investigated.

CHARGES FOR INVESTIGATIONS

Requests for investigations into data which satisfy the \$250,000 threshold are costed and investigated in 2 stages. Charges are payable prior to the commencement of each stage. Clients should understand that the payment of an initial (and final) fee does not guarantee that amendments will be made to the data.

STAGE 1

A fee of \$310.00 will be charged for the initial investigation. This covers the computing costs incurred in interrogating the transactions file, and the staff costs incurred in assessing the query against the following criteria:

- significance of the potential amendments to value or classification.
- seriousness or evidence of systemic reporting problems.
- evidence of data error.

Data queries which do not satisfy these criteria, or which are likely to place an unacceptable burden upon data providers, will not be further investigated. Within ten days of the receipt of payment for Stage 1 of the investigation, the client will be provided with either:

- a written explanation of the reasons for not proceeding further with the investigation into the query, or
- a written quote indicating the cost of further investigations to fully resolve the query and the time required to do the work. The quote is based on the estimated staff hours and computing costs required to complete the investigation and amend the data, where that is applicable.

The charges will vary depending on the number of commodity items involved and the complexity of the investigation.

STAGE 2

Stage 2 involves a detailed investigation of the transactions covered by the data query. This will include direct contact with the exporters, importers or their agents to verify the information reported to Customs, for at least some of the affected transactions. Once the investigations are complete, the client will receive written advice of the outcome, including an indication of the likely impact on the data queried, if amendments are to be applied to the data



ENSURING DATA QUALITY

HOW TO REQUEST DATA QUERIES Requests for investigations should be made by completing and submitting the appropriate form in this booklet. The completed form, with the initial payment of \$310.00, should be sent to:

The Exports (or Imports) Manager
International Trade Section
Australian Bureau of Statistics
Locked Bag 10
BELCONNEN ACT 2616

If you wish to discuss these matters, please contact the officer concerned on (02) 6252 6106. The form may be faxed to (02) 6252 7438.





INTERNATIONAL TRADE

REQUEST FOR IMPORTS DATA INVESTIGATION

Clients should be aware of the following points when making requests for investigations:

- requests will not be accepted if the value of the data queried is less than \$250,000 in the month involved;
- investigations can only be undertaken if the reference months are within the last six months published;
- investigations may not result in amendments being made to the data; and
- data subject to confidentiality restrictions should not be queried.

Name of Organisation: _____

ABN:

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Address: _____

Contact Name: _____

Phone: _____ **Fax:** _____

Email Address: _____

Please specify whether the query is related to

- Imports
- Clearances

Data as shown on your report

Commodity Code (HS Tariff)	Period	Value	Quantity	Country of Origin	State of Final Discharge
eg 7306300030	April 2000	\$400,000	480T	Canada	NSW

Data queried

(eg value, quantity, commodity)

Reason for query

(eg value inconsistant with previous periods, recurring error in reported country or state, commodity not produced in country of origin)

Specific evidence supporting query

(eg specific shipments are known to have occurred during the period but no trade is shown in output)

Signed _____ **Date:** _____

If you would like to discuss any details of your request, please telephone the Imports Manager on (02) 6252 6106

The completed form and initial payment of \$310.00 should be sent to:

The Imports Manager
International trade Section
Australian Bureau of Statistics
Locked Bag 10
BELCONNEN ACT 2616

Facsimile: (02) 6252 7438
Email: international.trade@abs.gov.au

Cheques should be made payable to: The Collector of Public Monies.
Payments by credit card can be accepted.



INTERNATIONAL TRADE

REQUEST FOR EXPORTS DATA INVESTIGATION

Clients should be aware of the following points when making requests for investigations:

- requests will not be accepted if the value of the data queried is less than \$250,000 in the month involved;
- investigations can only be undertaken if the reference months are within the last six months published;
- investigations may not result in amendments being made to the data; and
- data subject to confidentiality restrictions should not be queried.

Name of Organisation: _____

ABN:

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Address: _____

Contact Name: _____

Phone: _____ **Fax:** _____

Email Address: _____

Data as shown on your report

Commodity Code (AHECC)	Period	Value	Quantity	Country of Final Destination	State of Origin	Gross Weight
eg 03055910	June 2000	\$300,000	200KG	Japan	WA	300KG

Data queried

(eg value, quantity, commodity)

Reason for query

(eg value inconsistant with previous periods, commodity not produced in Australia, recurring error in reported country or state)

Specific evidence supporting query

(eg specific shipments are known to have occurred during the period but no trade is shown in output)

Signed _____ **Date** _____

If you would like to discuss any details of your request, please telephone the Exports Manager on (02) 6252 6106

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