Australian Government

Department of Foreign Affairs and Trade

DFAT ADJUSTMENTS TO ABS OFFICIAL TRADE DATA

Introduction

The Department of Foreign Affairs and Trade (DFAT) makes a number of adjustments to published Australian Bureau of Statistics (ABS) official monthly merchandise trade data to produce the most accurate dataset possible on Australia's merchandise trade data on a calendar year and financial year basis. These adjustments include using ABS trade data that is released after a time lag, DFAT estimates and the correction of a number of small errors in the ABS monthly trade dataset.

1. Merchandise trade data released after a time lag

The ABS has been able to negotiate special reporting arrangements with a number of providers of trade data by releasing confidential data with a time lag. These export commodities include:

- *Lupins* (AHECC 1214.90.21) — all economy details released on a monthly basis six months after the reference period. This data is automatically included in the regular monthly updates of ABS merchandise trade data after the time lag.

- *Raw cane sugar* (AHECC 1701.11.40) — commodity and economy details (values and quantity) on a quarterly basis are released six months after the reference period. This data is not automatically included in monthly updates of ABS merchandise trade data but is available in a spreadsheet format.

- *Non-industrial diamonds* (AHECC 7102.31.00) — commodity and economy details (values only) released on a quarterly basis only. This data is not automatically included in monthly updates of ABS merchandise trade data but is available in a spreadsheet format.

The ABS monthly export dataset does not include the *Raw cane sugar* and the *Non-industrial diamonds* (though it does include *Lupins* six months after the reference period). In DFAT's annual trade publications and time series datasets exports of *Raw cane sugar* and the *Non-industrial diamonds* has been included.

2. Confidentiality in ABS monthly trade data and its impact on accurate partner economy export and import data

The ABS has been required to apply economy level restrictions to a number of commodities to maintain confidentiality within its monthly export and import data. This has resulted in some commodities being excluded from partner economy totals and State/Territory totals.

For exports, from June 2013 a number of export commodities[1] were excluded, with the major ones *Cane sugar*, *Nickel Mattes*, *Nickel alloys unworked* and *Non-industrial diamonds*. From this period onwards, a number of Economy/State totals for exports will be under-reported in ABS monthly trade statistics. The ABS advised that data was confidentialised in this way to ensure that trade to individual economies/states could not be identified, even if the transactions were unusually large[2].

The confidential export commodity codes excluded from partner economy totals may not remain consistent over time. The ABS reviews confidentiality on a monthly basis and may add or remove some exports codes

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[1] AHECC at the 8-digit level that have the confidentiality restrictions 'No commodity details' or 'No value details'. See the ABS publication *International Merchandise Trade: Confidential Commodities List* (catalogue 5372.055.001).

[2] *International Trade in goods and services Australia*, June 2013 issue, page 4 (catalogue 5368.0).

from this list. For example, the ABS added a new commodity, *Live buffalo (excl. pure-bred breeding buffalo)* to the list from November 2019.

In aggregate $11.9 billion has been excluded from ABS partner economy export data in 2022 and $11.2 billion in 2021-22 (refer to *Table A*).

Table A: Value of 'No country details' included in export totals

	No economy details A$m	Total goods exports A$m	Share of total exports %
Calendar year			
2013 (from Jun-13)	3,694	261,959	1.4
2014	5,808	265,923	2.2
2015	5,964	249,612	2.4
2016	6,044	258,468	2.3
2017	5,750	301,335	1.9
2018	4,652	344,616	1.4
2019	5,215	389,901	1.3
2020	6,550	363,461	1.8
2021	9,283	459,675	2.0
2022	11,929	594,548	2.0
Financial year			
2012-13 (from June-13)	596	246,979	0.2
2013-14	5,667	272,921	2.1
2014-15	6,176	254,551	2.4
2015-16	5,802	243,423	2.4
2016-17	6,109	290,880	2.1
2017-18	5,360	314,478	1.7
2018-19	4,592	372,590	1.2
2019-20	5,661	382,167	1.5
2020-21	7,670	396,231	1.9
2021-22	11,159	532,857	2.1

Based on ABS trade data (Jan-2023 data) on DFAT STARS database.

In terms of imports, from the month of September 2008 onwards a number of import commodities[3] have been excluded from partner economy totals and State/Territory totals for the same reasons as the export data.

The major commodities excluded include selected aircraft, selected LNG floating platforms, refined petroleum and natural gas imports. From this period onwards, a number of Economy/State totals for imports will be under-reported in ABS monthly trade statistics. In aggregate $5.2 billion has been excluded from ABS partner economy import data in 2022 and $5.6 billion in 2021-22 (refer to *Table B*).

As with exports, the confidential import commodity codes excluded from partner economy totals may not remain consistent over time.

Given the importance of accurate trade data, DFAT has been working with the ABS to find a solution that will allow accurate partner economy export/import totals on a financial and calendar year basis to be published while maintaining business confidentiality. As a result, the ABS was able to provide calendar and financial

[3] Harmonized Tariff Item Statistical Code (HTISC) at the 10-digit level that have the confidentiality restrictions 'No commodity details' or 'No value details'.

year export and import totals to DFAT for selected trading partners for the periods affected in the publication *International Trade: Supplementary Information* (catalogue number 5368.0.55.003 & 004).

Appendix A on the DFAT website (Trade time series data | Australian Government Department of Foreign Affairs and Trade (dfat.gov.au)) shows the full list of the actual partner economy export and import data that has been obtained from the ABS on a calendar and financial year basis. This data is included in DFAT's annual trade publications and time series datasets.

Table B: Value of 'No country details' included in import totals

	No economy details A$m	Total goods imports A$m	Share of total imports %
Calendar year			
2008 (from Sep-08)	2,025	225,946	0.9
2009	5,488	200,564	2.7
2010	6,099	210,478	2.9
2011	6,728	226,897	3.0
2012	5,155	241,855	2.1
2013	4,541	241,026	1.9
2014	6,784	252,777	2.7
2015	6,908	267,074	2.6
2016	2,440	254,345	1.0
2017	15,139	288,291	5.3
2018	5,710	304,047	1.9
2019	4,435	307,550	1.4
2020	2,633	293,603	0.9
2021	4,614	330,234	1.4
2022	5,233	417,233	1.3
Financial year			
2008-09 (from Sep-08)	4,761	219,484	2.2
2009-10	5,710	203,977	2.8
2010-11	5,897	213,804	2.8
2011-12	6,674	239,729	2.8
2012-13	4,295	236,500	1.8
2013-14	5,797	252,333	2.3
2014-15	6,948	256,968	2.7
2015-16	4,686	263,264	1.8
2016-17	7,448	264,008	2.8
2017-18	12,025	301,159	4.0
2018-19	5,156	306,635	1.7
2019-20	3,696	298,691	1.2
2020-21	2,444	308,789	0.8
2021-22	5,640	373,457	1.5

Based on ABS trade data (Jan-2023 data) on DFAT STARS database.

Please note that this issue is going to make it difficult to determine actual trends in Australia's total exports and imports by partner economy on an ongoing basis. **All users are advised to use ABS partner economy merchandise export and import data with caution for the economies not covered by the addtional ABS data.**

For State/Territory exports and imports, the ABS has published actual totals on a balance of payments basis in the quarterly publication *Balance of Payments and International Investment Position* (catalogue number 5302.0) and the annual *Australian National Accounts: State Accounts* (catalogue number 5220.0).

3. Corrections to ABS merchandise trade data

DFAT has identified a number of small corrections to ABS merchandise trade data that the ABS did not apply to their monthly trade dataset as the value of the transaction fell below the ABS normal threshold level for amending trade records[4].

The following is a list of corrections that have been applied to ABS trade data by DFAT in its annual and financial trade statistical publications and time series datasets:

- Exports of *Arms & ammunition* (AHECC 9306) from the ACT to Germany in October 2009 valued at $2,380,000 were a re-export and should not be included as an export produced from the ACT.
- Imports of $93,000 of *Meat of bovine animals, frozen* (HTISC 0202) from the United States in May 2005 were incorrect in ABS import statistics. The Department of Home Affairs confirmed the imports were pork (HTISC 0203) not beef.
- Imports of *Iron ore* (HTISC 2601) from New Caledonia were incorrectly being coded in ABS import statistics. The imports were actually *Nickel ores* (HTISC 2606). All time periods have been corrected.
- Imports of *Arms & ammunition* (HTISC 9306) from Timor-Leste were incorrectly coded. Imports have been coded to miscellaneous manufactures. All time periods have been corrected.

4. DFAT estimates for missing data items.

In some cases DFAT has estimated trade that is not included in published ABS data.

- Raw cane sugar exports – To overcome the time lag for *Raw cane sugar* exports, DFAT has estimated data for the June quarter 2019 (for the financial year 2018-19) by using information from the Australian Bureau for Agricultural and Resources Economics and Sciences (ABARES) and partner economy import data from Australia's major *Raw cane sugar* export markets.
- France imports – DFAT has estimated actual imports from France for the period September 2008 until June 2017 (excluding the periods July 2013 to June 2014, January 2015 to June 2015 and January 2017 to December 2017 which is based on actual ABS data). The major import excluded from partner economy import data from September 2008 onwards is aircraft.
- United States imports – DFAT has estimated actual imports from the United States for the period January 2016 to June 2016 and July 2017 to December 2017 (all other periods are based on actual ABS data). The major import excluded from partner economy import data from September 2008 onwards is aircraft.
- LNG floating platforms imported from the Republic of Korea – DFAT has estimated the value of the import of the INPEX's *Ichthys Explorer* LNG central processing platform in May 2017 and the *Ichthys Venturer floating production* platform in August 2017. This adjustment has been allocated as imports from Korea to Western Australia and allocated to the SITC code *793 Ships, boats & floating structures* and TRIEC code *2434 Other transport equipment & parts*.
- Cotton exports – DFAT has estimated cotton exports to China and Indonesia from the period August 2017 until October 2018, which were confidential in ABS trade data. These estimates are included in SITC code *263 Cotton* and TRIEC code *1143 Textile fibres unprocessed & waste*.

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[4] Refer to the ABS article - *International Trade Review: Data Quality and Client Queries* for further information.

- <u>Sodium cyanide exports</u> – DFAT has estimated cyanide exports to Peru from the period July 2005 onwards which are confidential in ABS trade data. These estimates are included in SITC code *283 Salts of inorganic acids & metals* and TRIEC code *2322 Inorganic chemicals*.

These estimates are included in DFAT's annual and financial year trade statistical publications and time series datasets.

5. Estimates for LNG exports by partner economy (introduced June 2019)

With the growing importance of Australia's Liquid Natural Gas (LNG) exports – now Australia's third largest export, DFAT has started producing estimates of LNG exports by partner economy on an annual and financial year basis. Estimates for the major markets (China, India, Japan, Malaysia, Republic of Korea, Singapore, Taiwan and Thailand) have been generated. These estimates are included in all of DFAT's statistical products through to 2020-21 and are included in SITC code *343 Natural Gas* and TRIEC code *1232 Petroleum gases & other gaseous hydrocarbons, processed*. An overview of the methodology used to produce these estimates is included in Box A below.

BOX A – METHODOLOGY FOR ESTIMATING CONFIDENTIAL LIQUID NATURAL GAS (LNG) EXPORTS BY PARTNER ECONOMY

Data on Liquid Natural Gas (LNG) exports (AHECC[5] code 2711.11.00) by partner economy have not been published by the Australian Bureau of Statistics (ABS) from August 1995 onwards. With LNG now being Australia's third largest export, there is a growing demand for information on these exports to our major markets.

In response to this demand, DFAT has produced a model to estimate time series data for LNG exports.

Model for LNG exports by partner economy

DFAT's model uses merchandise import data published by our major trading partners (or mirror statistics) to source data on import quantities of LNG from Australia for each partner economy. The quantity data was weighted to the total Australia LNG quantity export data (published by the ABS) to produce estimates of Australian LNG export quantities by partner economy.

The average price of total Australian exports of LNG (value divided by quantities) was applied to these quantity estimates to produce initial estimates for the total value of LNG exports by partner economy.

Different markets however will have different LNG prices – depending on the mix of present and historical contract prices and spot price rates. An analysis of average prices using the monthly value and quantities data of Australian LNG imports published in the partner economy data found some differences to the ABS average. Where the price[6] was significantly different to the ABS average, the average Australian LNG price for that economy was either inflated or deflated, to more accurately represent the price of the LNG exports to that market

Analysis was also undertaken to see if a timing adjustment could be applied to take into account the time it takes to ship the LNG from Australia to its markets. Due to the quick shipping times for LNG shipments (one to two weeks), it was not possible to apply a timing adjustment to the monthly series[7]. However publishing the estimates on a calendar and financial year basis only should help smooth out any timing issues.

Some manual manipulation was required to the model (mainly for Taiwan and Singapore) to match the estimates to the published ABS time series data for LNG values and quantities[8].

For historical data, pre-June 2015 the ABS total LNG quantity data used to generate the estimates in this model is not published by the ABS. A simplified model was used to generate these estimates by taking partner economy import values, reported on a cost insurance and freight basis (c.i.f.) and adjusting them, to a proxy free on board basis (f.o.b.) to be compatible with ABS total export data for LNG.

The estimates pre-June 2015, are considered to be of a poorer quality than those used in the model but are still useful to generate a full time series (from 1995) for LNG exports by partner economy.

Actual LNG exports by partner economy

As part of a consultancy service for the Department of the Agriculture, Water and the Environment, the ABS has been able to publish LNG exports by selected partner economy for both values and quantities for the

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[5] AHECC – Australian Harmonised Export Commodity Classification.

[6] Average prices from partner economy data were adjusted from a cost insurance and freight basis (c.i.f.) to a proxy free on board basis (f.o.b.) to make them compatible with ABS export data.

[7] It would be necessary to have weekly trade data to apply a timing adjustment to LNG shipments

[8] Mainly due to LNG shipments through third party economies.

financial years 2017-18 to 2021-22. As the ABS publishes data on LNG exports by partner economy, this data will replace the modelled estimates in all DFAT trade products. 2022-23 LNG data will be provided in November 2023.

For further information

DFAT publishes a number of articles that provide supplementary information on Australian trade data not included in ABS official trade statistics including:

- *Australia's imports of aircraft & parts*;
- *Changes to ABS merchandise export statistics and its impact on partner economy aggregates*;
- *Impact of ABS confidential restrictions on exports of Nickel*; and
- *Confidentiality in Australian merchandise export statistics*.

These articles are available on the DFAT website at Trade and investment articles | Australian Government Department of Foreign Affairs and Trade (dfat.gov.au).

For further information on the impact of confidentiality in ABS merchandise trade statistics please refer to the ABS publication – International Merchandise Trade: Confidential Commodities List, September 2021 | Australian Bureau of Statistics (abs.gov.au).

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Updated: March 2023