



Australian Government
Department of Foreign Affairs and Trade



HISTORICAL TRADE TIME SERIES EXPLANATORY NOTES

INTRODUCTION

This product provides time series data on Australia's trade, and selected economic indicators from Federation (in 1901) to the present and for selected series back further.

There are two time series spreadsheets provided in this release. They are in Microsoft Excel format and are compatible with most versions of this software. They should also be able to be imported into most other spreadsheet packages.

The first time series spreadsheet, *Australia's trade and economic indicators*, provides time series data for:

- Australia's population back to 1778 and short-term overseas arrivals and departures back to 1925;
- Australia's Gross Domestic Product (GDP) in both current price and real terms; the terms of trade index; and the unemployment rate back to 1900-01;
- Australian merchandise trade values (exports, imports and balance of trade) on a recorded trade basis back to 1826, in both current price terms and in 2015-16 prices (back to 1901 only). Data for merchandise trade in volumes terms is also included from 1901 onwards;
- Australia's trade in goods, services and goods and services values (exports, imports and balance of trade) on a Balance of Payments (BOP) basis back to 1945-46 in current price terms and in 2015-16 prices. Data for trade in goods and services in volumes terms is also included for the same time period;
- Australia's international investment position, foreign investment in Australia (total and direct) and Australian investment abroad (total and direct) back to 1949-50 for both levels and net flows; gross and net debt; and
- Ratio of Australia's trade to GDP (exports, imports and two-way trade), in current price terms, for merchandise trade back to 1901 and Australia's trade in goods, services and goods and services (BOP basis) back to 1945-46. Ratio of Australia's international investment position to GDP back to 1949-50.

The second time series spreadsheet, *Australia's direction of merchandise trade*, provides time series data for around 60 of Australia's major merchandise trading partners back to 1901 (and in some cases to 1885). Data is in current price terms and on a recorded trade basis.

Data is usually presented on an Australian financial year basis (year ended June), except for merchandise trade data for the period 1826 to 1913 and population for all periods which is presented on a calendar year basis (year ended December).

DATA SOURCES

The merchandise trade statistics used to compile this publication are derived by the Australian Bureau of Statistics (ABS) from information provided to the Department of Home Affairs by exporters and importers. Data has been obtained from the following sources:

- ABS – *Year book* No. 3 1901 to 1909;
- ABS – *Trade and Customs and Excise Revenue of the Commonwealth of Australia* 1903 through to 1911 editions;
- ABS – *Overseas Trade - Australian Statistics of Overseas Imports and Exports and Customs and Excise Revenue*, 1921-22, 1925-26 & 1934-35 editions;
- ABS – *Overseas Trade and Customs and Excise Revenue*, 1938-39 & 1947-48 editions;
- ABS – *Overseas Trade*, 1951-52, 1954-55, 1958-59, 1961-62, 1964-65, 1965-66, 1969-70, 1974-75, 1976-77, 1977-78 & 1979-80 editions;
- ABS trade data on the *Department of Foreign Affairs and Trade's STARS database* (period 1977-78 to 2016-17) consistent with ABS trade data published March 2018; and
- ABS – *International Trade Supplementary Statistics*, 2016-17.

The historical ABS trade publications are available in PDF format on the ABS website at www.abs.gov.au.

The economic indicators for GDP, unemployment rate, terms of trade in goods and services data on a BOP basis has been sourced from the following sources:

- ABS – *Balance of Payments and International Investment Position Australia*, December quarter 2017;
- ABS – *Balance of Payments and International Investment Position Australia*, 1996-97;
- ABS – *Australia's National Accounts*, December quarter 2017;
- ABS – *Australia's National Accounts*, 2016-17;
- ABS – *Labour Force Historical Time Series, Australia*, February 2009;
- ABS – *Labour Force*, March 2018;
- ABS – *Overseas arrivals and departures, Australia*, various issues;
- Reserve Bank of Australia (RBA) – *A preliminary annual database* 1900-01 to 1973-74 - M. V. Butlin;
- RBA – *Historical Australian Economic Statistics* 1949-1950 to 1996-1997;
- *Christian Gillitzer and Jonathan Kearns* (terms of trade data 1900-01 to 1948-49); and
- ABS – *Australian Historical Population Statistics*, 2014 & *Australian Demographic Statistics*, September 2017.

VALUATION


Merchandise trade on a recorded trade basis

Exports: Valued at the *free-on-board* (f.o.b.) basis at the Australian port-of-shipment. Charges for distributive services provided beyond the customs frontier are not included (e.g. international freight and insurance charges).

Imports: Valued at the *Australian Customs Value* for Australian data. This is based on the price actually paid, provided the buyer and seller are independent, on a f.o.b. basis, i.e. charges and expenses involved in delivering the goods from the place of exportation to Australia are excluded.

Goods and services trade on a balance of payments basis

Australia's BOP statistics are compiled in accordance with the latest international standards determined by the International Monetary Fund (IMF), and published in the Balance of Payments Manual, Sixth edition,



2008 (BPM6). Data prior to 1959-60 is published on the basis of the fifth edition (BPM5). There were only minimal definitional changes for goods and services between BPM5 and BPM6.

The BOP basis can differ from a recorded trade basis in terms of coverage, valuation and timing. Goods and services trade are based on market price for both credit (export) and debit (import) entries. The timing of these transactions is based on change of ownership of the good or service between residents and non-residents. However, in the case of goods the majority of goods trade is based on timing and valuation as recorded in Australian Customs statistics for practical purposes of data collection.

MERCHANDISE TRADE – INCLUSIONS/EXCLUSIONS

The following inclusions/exclusions have been applied to the merchandise trade data:

- Exports and imports data includes both merchandise and non-merchandise trade up to 1976-77. From 1977-78 onwards only merchandise trade is included;
- Trade in gold and gold coins (also called specie) has been included in exports and imports for all time periods;
- Exports include ship stores (goods procured in port by non-resident carriers in Australia) for all periods. This is consistent with the latest international standards for both balance of payments and international trade statistics. Note that the ABS excluded ship stores from exports for the period 1906 to 1981-82 in its historical trade publications. Exports of ship stores for the period 1906 to 1979-80 are sourced from the ABS. Data for 1980-81 and 1981-82 are DFAT estimates; and
- Imports data prior to 1976-77 also included the charges involved with placing the good on the vessel in port.

VALUES

Current price


Current price values are expressed in terms of current Australian dollars. Historical data in pounds (1826 to 1964-65) were converted to Australian dollars at the rate of one pound to two Australian dollars.

2015-16 prices

Trade values shown in 2015-16 prices have been calculated by inflating the current prices values by Consumer Price Index (CPI) factors sourced from the Reserve Bank of Australia (RBA). The historical CPI factors are available at the [Reserve Bank of Australia](#). These series do not represent trade volumes (see Volumes – ABS chain volume measures) but are useful to compare trade values over a long time period without the impact of inflation.

VOLUMES – ABS CHAIN VOLUME MEASURES

Estimates of 'real' GDP growth and volume trade growth are compiled by the ABS, using chain volume measures. Chain volume measures are derived by deflating the original current price series by specifically compiled measures of price change. The reference year for chain volume measures is the year prior to the latest complete financial year incorporated into the time series. The reference year is updated with the completion of estimates for each financial year. For further information on chain volume measures refer to



the ABS publication: *Information paper, Australian National Accounts, Introduction of Chain Volume and Price Indexes* ([catalogue 5248.0](#)).

The historical real GDP and trade volume data from 1900-01 to 1958-59 has been spliced onto the current ABS published series (1959-60 to 2016-17).

TERMS OF TRADE

The terms of trade shows a country's export prices relative to its import prices. A rise in the index implies an improvement in a country's terms of trade, enabling it to purchase more imports from the same amount of exports. A fall in the index implies deterioration in a country's terms of trade, requiring it to export more to purchase the same amount of imports. Movements in the terms of trade are used in assessing the changing purchasing power of exports over imports, analysing real income, and evaluating the level of consumption that can be sustained in the domestic economy.

In these spreadsheets the terms of trade are based on the ABS definition. They are measured using the following index:

- Implicit price deflator (IPD) for the export (credit) item divided by the IPD for the import (debit) item, multiplied by 100.

The IPDs are derived by dividing current price series by the corresponding chain volume measure for exports and imports.

The historical terms of trade data from 1900-01 to 1958-59 has been spliced onto the current ABS published series (1959-60 to 2016-17).

TOTAL TRADE

Total trade is the sum of exports and imports. This is a useful measurement of the overall trading relationship between Australia and its trading partners. Total trade data is useful in ranking Australia's major trading partners, without a bias towards ranking only the larger export markets, or the larger import sources.


BALANCE OF TRADE

The balance of trade is the difference between exports and imports. When exports exceed imports this is referred to as a trade surplus, when imports exceed exports this is referred to as a trade deficit.

ECONOMY DATA

All partner economy trade data are presented for all periods shown on a basis consistent with their composition as at the end of 2017. However, given the extreme length of the time series many of our major trading partner's economy boundaries have undergone significant change. As a result it was not always possible to match the historical statistical data to the present day economy structure.

For example, Vietnam up to 1954 was part of French Indochina, which also included present day Laos and Cambodia. After 1954, Vietnam consisted of two separate countries, North and South Vietnam, until the modern state of Vietnam was formed in 1976. Therefore the time series for Vietnam includes trade with Laos and Cambodia up to 1954.



The 'Historical Economy Map' provided with this release, summarises the cases where it was not possible to exactly match the historical statistical data to the present day political country boundaries. The economy footnote section in this document provides additional information on the composition of each partner country over the time series period.

For exports, 'country' refers to the final destination as reported by exporters. It is understood, however, that exporters may not know the country of final destination of their goods at the time they are shipped. This applies particularly to goods directed through entrepôts such as Singapore, Hong Kong (SAR of China), and major European ports, with a consequent overstating of Australia's exports to these countries and corresponding understatement of exports to countries 'down stream' from them. For imports, 'country' refers to the country of origin of the goods, which is defined as the country of production for Customs purposes.

For import data prior to 1916-17, the ABS reported imports on a 'country of shipment' basis rather than 'country of origin'. A time series break for partner country import data exists at this point.

CONFIDENTIAL TRADE DATA

Goods

To avoid divulging commercially-sensitive details of individual firms, the ABS restricts release of statistics on certain commodities. The total value will be correct for exports or imports with a particular economy except for the following cases:

Alumina exports – Bahrain, Egypt and Iceland

The partner country total value for exports will be correct except for total exports to Bahrain, Egypt and Iceland (from March 1992 to December 2012) which exclude alumina exports. These exports are coded to a 'confidential country' category and cannot be separately identified. As a result, the values of exports to these countries are understated in aggregate.

Imports September 2008 to present

The ABS announced that it had changed the method used in confidentialising data for merchandise imports from the month of September 2008 onwards. Import data commodities that have the confidentiality restrictions of "No commodity details" or "No value details" are now aggregated into a single confidential country code.

For import data prior to September 2008, these data are added back into the appropriate country totals (i.e. these totals show the correct level of trade). From September 2008 the confidential data are not being added back into the appropriate country totals. Instead they are published as "No country details" in total Australian import data. Of the commodity codes affected by this change, SITC code 792 - Aircraft, spacecraft & related parts would make up the most significant component.

The ABS has been able to release the actual total country import totals for selected countries on a financial and calendar year basis only as a special data service. As a result total imports data for these countries includes these confidentiality data. The ABS is unable to release this data for other partner countries. The data has been shaded in the time series spreadsheets to indicate which partner countries are actual imports for the period after September 2008.

Refer to DFAT's technical note – *DFAT adjustments to ABS official trade data* (<http://www.dfat.gov.au/about-us/publications/trade-investment/Pages/dfat-adjustments-to-abs-official-trade-data.aspx>) – for further details.



Exports June 2013 to present

The ABS announced that it had changed the method used in confidentialising data for merchandise exports from the month of June 2013 onwards. Export data commodities that have the confidentiality restrictions of "No commodity details" or "No value details" are now aggregated into a single confidential country code.

For export data prior to June 2013, these data are added back into the appropriate country totals (i.e. these totals show the correct level of trade). From June 2013 the confidential data are not being added back into the appropriate country totals. Instead they are published as "No country details" in total Australian export data.

The ABS has been able to release the actual total country export totals for selected countries on a financial and calendar year basis only as a special data service. As a result total exports data for these countries includes these confidential items. The ABS is unable to release this data for other partner countries. The data has been shaded in the time series spreadsheets to indicate which partner countries are actual exports for the period after June 2013.

Refer to DFAT's technical note – *DFAT adjustments to ABS official trade data* (<http://www.dfat.gov.au/trade/resources/trade-statistics/Pages/trade-time-series-data.aspx>) – for further details.

To assist users of Australian trade data, the ABS publishes monthly, a list of all Australian Harmonized Export Commodity Classification (AHECC) and Harmonized Tariff Item Statistical Code (HTISC) commodities with confidential restrictions in place in the publication *International Merchandise Trade: Confidential Commodities List* (ABS catalogue 5372.0.55.0.01) available at the [ABS website](#). This publication is an essential reference guide for users of ABS merchandise statistics to ensure they are interpreting the trade statistics correctly.

INTERNATIONAL INVESTMENT POSITION (IIP)

Australia's IIP is a closely related set of statistics to BOP. IIP is a balance sheet of the stock of foreign financial assets and liabilities at a point in time. The IIP may be viewed more broadly as a reconciliation statement showing the levels of Australia's international assets and liabilities at two points of time and the components of change namely flows and other changes (such as price changes, exchange rate movements and other adjustments).

For more information concerning the definitions and classifications used by the ABS in the compilation of BOP and IIP statistics, please refer to the ABS publication *Balance of Payments and International Investment Position, Australia, Concepts Sources and Methods 1998* (ABS catalogue 5331.0).

Direct investment

Direct investment is investment, undertaken by an entity resident in one economy, in an enterprise resident in another economy, with the objectives of obtaining or sustaining a lasting interest in the enterprise and exercising a significant degree of influence in its management. A 10% equity investment threshold is applied as evidence of such a direct interest.



OPENNESS INDICATORS

Trade to GDP ratio

An indicator of countries openness to the world economy, in terms of trade can be measured by the calculating the share of trade (exports or imports or two-way trade) as a per cent of GDP. An increasing percentage share represents an economy that is becoming more open to the world economy, while a decreasing share represents an economy that is becoming less open to the world economy.

Investment to GDP ratio

An indicator of countries openness to the world economy, in terms of investment can be measured by the calculating the share of international investment position (net assets or assets or liabilities) as a per cent of GDP. An increasing percentage share represents an economy that is becoming more open to the world economy, while a decreasing share represents an economy that is becoming less open to the world economy.

POPULATION AND OVERSEAS ARRIVALS AND DEPARTURES

Estimated resident population (ERP) is an estimate of the Australian population obtained by adding to the estimated population at the beginning of each period the component of natural increase (on a usual residence basis) and the component of net overseas migration.

Overseas arrivals and departures (OAD) refer to the arrival or departure of Australian residents and overseas visitors, through Australian airports (or sea ports) which have been recorded on Department of Home Affairs Incoming and Outgoing Passenger Cards. Statistics on overseas arrivals and departures relate to the number of movements of travellers, rather than the number of travellers (i.e. the multiple movements of individual persons during a given reference period are all counted).

Overseas arrivals and departures are classified according to length of stay on passenger cards. There are three main categories: Permanent, Long-term and Short-term arrivals and departures. Short-term arrivals and departures are defined as overseas visitors whose intended stay in Australia is less than 12 months; and Australian residents returning after an absence of less than 12 months overseas.


In this product only short-term visitor arrivals and short-term resident departures are included as they represent an indicator of Australia's exports and imports of tourism services.

For more information on ABS Population and OAD data please refer to the ABS publication Australian Historical Population Statistics, 2014 (ABS catalogue 3105.0.65.001).

DATA QUALITY

The historical time series data has in most part been manually compiled from historical trade paper publications. Specific historical publications have been chosen (see data sources) to create the time series data. Please note that trade data from a publication used may not exactly match that in earlier or later editions due to revisions to ABS trade data.

The Statistics Section (STA) have taken great care to ensure the information provided in these spreadsheets are correct and accurate as possible. However DFAT does not guarantee correctness or accuracy and accepts no legal liability arising from, or connected to, the use of this material.



If you identify an error in the data in these spreadsheets please email the STA at statssection@dfat.gov.au. If an error is confirmed in the time series data STA will amend the spreadsheets accordingly.

OTHER DATA SOURCES

There are a number of useful sources for historical trade statistics including:

- [Australian Bureau of Statistics, *Overseas trade*](#) 1903 to 1976-77 (ABS Cat. No. 5409.0);
- [RBA *Historical Australian Economic Statistics*](#) 1949-1950 to 1996-1997;
- [Queensland Government Statistician's Office](#) – QLD trade data from 1860 to 2007-08; and
- [United Nations *Historical Trade Statistics*](#) 1900 to 1960.

This time series data was compiled mainly by Julie-Anne Andrew, Frank Bingham and Tara Collins.

If you want to know more about these statistics or about other trade and economic publications produced by DFAT, please email statssection@dfat.gov.au.

Economy footnotes

Argentina	
Austria	Hungary included up to 1917-18. Austria included with Germany from 1938-39 to 1944-45.
Bahrain	Included in Arabia until 1924-25. Formerly called Bahrain Island.
Bangladesh	Included in India until 1947-48, then in Pakistan until 1970-71.
Belgium	Includes Luxembourg from 1952-53 to 2002-03.
Brazil	
Brunei	British Borneo from 1905 to 1960-61 (which includes the Malaysian state of Sabah).
Canada	Includes Newfoundland and Labrador for all time periods.
Chile	
China	
Denmark	Includes Greenland. Faeroe Islands joined in 1946.
Egypt	Includes Syria from 1958 to 1961. Formerly known as United Arab Republic from 1958 to 1971.
Fiji	Includes Pitcairn Island 1967-68 to 1976-77.
Finland	Formerly part of Russia until 1918.
France	
Gabon	From 1960-61 (previously included as part of French Equatorial Africa).
Germany	Changed to Germany (Eastern Zone) and Germany (Western Zone) in 1950-51. Unified on 3 October 1990. Includes Austria from 1938-39 to 1944-45.
Guam	Included in the United States 1926-27 to 1951-52.
Hong Kong, SAR of China	
India	Includes Bangladesh and Pakistan until 1947-48.
Indonesia	Formerly known as East Indies until 1919-20 and then Netherlands East Indies until 1947-48.
Iran	Formerly known as Persia until 1960-61.
Iraq	From 1919-20. Formerly included in Turkey (Ottoman empire) up to 1920.
Ireland	Included with the United Kingdom until 1922. Formerly known as the Irish Free State (1922 to 1937) and Eire (1937 to 1949).
Israel	From 1949-50.
Italy	
Japan	Includes Formosa (present day Taiwan) until 1945-46.

Economy footnotes

Kuwait	Included in Arabia prior to 1937-38; then Other Arabian States until 1955-56.
Libya	From 1910. Formerly known as Tripoli.
Malaysia	Formerly Straits Settlement and British Malaya until 1946-47. Includes Singapore prior to 1946-47 and from July 1964 to September 1965. Excludes the Malaysian state of Sabah from 1905 to 1960-61 (included in Brunei).
Mauritius	
Mexico	
Nauru	From 1914-15. Formerly known as Pleasant Island.
Netherlands	
New Caledonia	
New Zealand	Includes Cook Island from 1937-38 to 1945-46.
Pakistan	Included in India until 1947-48. Includes Bangladesh until 1970-71 (former East Pakistan).
Papua New Guinea	Territory of Papua (British New Guinea until 1905) and Territory of New Guinea (formerly Kaiser-Wilhelm land, Bismarck Archipelago and Neu Pommern until 1918-19).
Philippines	Formerly called Philippine Islands.
Qatar	From 1958-59. Included in Arabia prior to 1937-38; then Other Arabian States until 1957-58.
Republic of Korea	Korea was a single state until 1948, when it split into The Republic of Korea and the Democratic People's Republic of Korea. Includes Democratic People's Republic of Korea prior to 1956-57.
Russian Federation	Includes the USSR from 1918-19 to 1991-92. Includes Finland until 1918.
Saudi Arabia	Formerly included in Arabia until 1945-46. Arabia also included Bahrain up to 1924-25, Kuwait, Oman, Qatar and the United Arab Emirates up 1937-38. Includes Yemen from 1946-47 until 1953-54.
Singapore	Included in British Malaya until 1946-47. Included in Malaysia from July 1964 to September 1965.
South Africa	Formerly Cape Colony, Natal and Transvaal. Formerly known as Union of South Africa until 1960-61. Includes Zimbabwe for 1910 and 1911.
Spain	Includes the Balearic Islands. Canary Islands included from 1960-61.
Sri Lanka	Formerly known as Ceylon until 1972.
Sweden	
Switzerland	
Taiwan	Included with Japan until 1945-46. Formerly known as Formosa, then China Republic of Formosa until 1971-72.



Economy footnotes

Thailand	Formerly known as Siam until 1939.
Turkey	Includes Asia Minor until 1924-25.
United Arab Emirates	Included in Arabia prior to 1937-38; then Other Arabian States until 1963-64. Formerly called Trucial States from 1964-65 to 1970-71; then Union of Arab Emirates until 1974-75.
United Kingdom	Includes Ireland until 1922. Excluding Channel Islands until 1963-64.
United States	Includes Alaska and Hawaiian Islands for all time periods. Excludes Puerto Rico after 1950-51. Includes Guam from 1926-27 to 1951-52.
Vietnam	Formerly Cochin China then French Indo-China (includes present day Laos and Cambodia). Divided into Vietnam North and Vietnam South from 1954 to 1975.
Zimbabwe	Includes Malawi from 1954-55 to 1963-64. Included in South Africa for 1910 and 1911.