



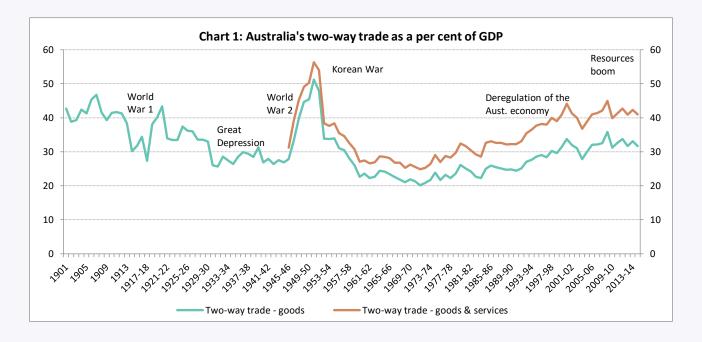
AUSTRALIA'S TRADE SINCE FEDERATION

Introduction

Australia's trade has always been a key component of the economy however the composition of Australia's trade has changed significantly since Federation. This 'pictorial' article briefly illustrates some of the key aspects of Australia's trade since 1901, examining the changing composition of Australia's exports and imports in terms of commodities and regions, its importance to the Australian economy, as well as the impact on Australia's trade balance and terms of trade.

Australia's openness to world trade

An indicator of a country's openness to the world economy can be measured by calculating the ratio of trade (exports, imports or two-way trade) as a percentage of Gross Domestic Product (GDP). An increasing ratio represents an economy that is becoming more open to the world economy, while a decreasing ratio represents an economy that is becoming less open to the world economy.



In 1901, Australia's two-way merchandise trade¹ accounted for 42.7 per cent of GDP (*refer to Chart 1)*. It averaged around 40 per cent of GDP up until the start of the First World War in 1914, then fell sharply during the war because of disruptions to Australia's export markets and import sources. The ratio recovered rapidly reaching pre-war levels in the early 1920s (in part due to a wool boom). The ratio then trended down from the mid-1920s, falling to a low of 25.7 per cent in 1931-32 at the height of the Great Depression as protectionist measures were introduced. It remained fairly constant from the early 1930s until the end of

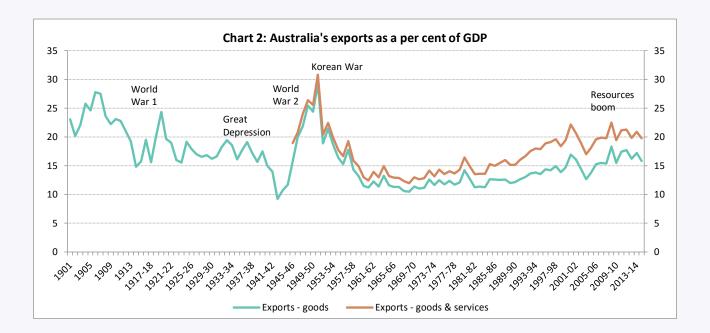
 $^{^{}m 1}$ Data on Australia's trade in services is only available from 1945-46 onwards.

the Second World War, averaging around 28 per cent of GDP. This indicates that Australia's openness to the world economy, in terms of two-way trade, was in gradual decline from Federation up to the end of the Second World War.

Australia's openness in terms of two-way trade in goods and services rose rapidly after the Second World War. Two-way trade averaged around 44 per cent of GDP between 1945-46 and 1954-55 (with a record level of 56.3 per cent in 1950-51 during the Korean War commodities boom).

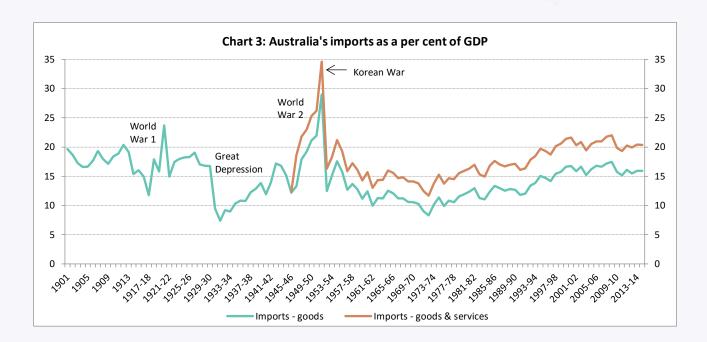
After the Korean War boom Australian government policy was concentrated on promoting domestic industry capability. This led to the two-way trade ratio falling to between 25 and 30 per cent of GDP during the 1960s and 1970s, the lowest levels in the series history (with a record low of just 24.9 per cent in 1971-72).

This downward trend in the ratio was reversed during the 1980s with deregulation (including floating of the dollar in 1983) and the opening up of the Australian economy to the world. As the effects of these reforms flowed through the Australian economy the two-way trade ratio grew from around 32 per cent of GDP at the end of the 1980s to 40.9 per cent by the end of the 20th century. The ratio rose to 44.9 per cent in 2008-09 at the height of the resources boom but has since declined and stands at 41.0 per cent in 2014-15, just below the level recorded in 1901 at the time of Federation (42.7 per cent).



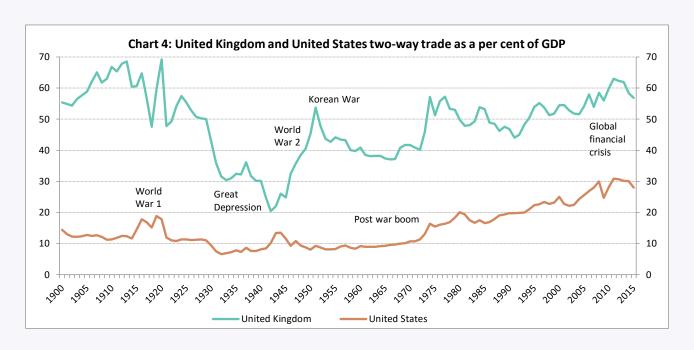
The same trends in terms of openness for both exports and imports can be observed (*refer to Charts 2 & 3*). A general decline is seen in both ratios from 1901 until the Second World War, with the imports ratio in particular affected by the Great Depression with the ratio falling to a record low of 7.4 per cent in 1931-32. During the Second World War the export ratio declined further than the import ratio.

After the Second World War both ratios (in terms of goods and services) rose rapidly to peak during the Korean War boom. After the Korean War boom both ratios declined as Australian government policy concentrated on promoting domestic industry. Since the deregulation of the Australian economy in the 1980s both ratios have trended upwards to around 20 per cent by 2014-15. For exports the ratio is slightly below the level recorded in 1901 at the time of Federation (23.0 per cent) but slightly above for imports (19.7 per cent).



In comparison, *Chart 4* shows two-way trade in goods and services as a share of GDP for the United Kingdom and the United States. For the United Kingdom, as with Australia, the level of openness at the beginning of the 1900s is high (55.3 per cent) which indicates how important trade was to both these countries. The level of openness declines sharply after the First World War to a low during the Great Depression years in the 1930s. After the Korean War, the ratio remains fairly flat until the early 1970s when the United Kingdom joins the European Union. The rate then rises strongly and is around 3 per cent higher in 2015 than 1900.

The United States in contrast, had a relatively low openness index in 1900 (just 14.4 per cent) and this remained fairly flat up to start of the 1970s (excluding the two world wars). After the 1970s the level of openness has grown steadily to 28.1 per cent in 2015, below both Australia (41.0 per cent) and the United Kingdom (56.8 per cent). The level of openness for the United States over the past 110 years has been far less volatile than for Australia or the United Kingdom.







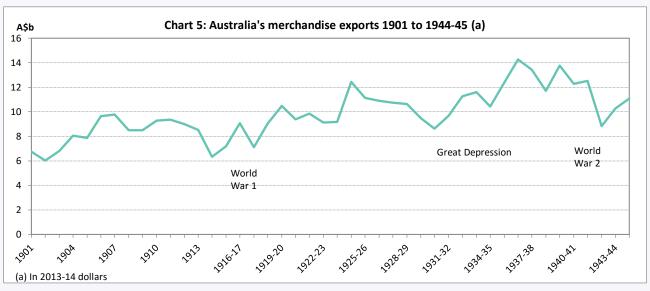
Australia's exports overview 1901 to 2014-15

Australia's export performance over the first half of the 20th century was concentrated on a much narrower base than today. A small range of major agricultural commodities were exported to a small number of British Empire markets and these made up the bulk of Australia's exports. Export growth during the period was slow, with the importance of exports to the Australian economy declining over the period. Export growth was linked to the agriculture cycle, and suffered severe disruptions during both world wars along with a decline in exports during the Great Depression.

After the Second World War, Australia's export performance diversified with resources, manufactures and services exports growing in importance while agricultural commodities declined. Export growth during the period was strong compared to the first half of the century. It became more important to the Australian economy, especially from the 1980s onwards, as the Australian economy opened up to the world. Australia's export markets also shifted geographically from Europe (especially the United Kingdom) to Asia (especially Japan and China).

Over the period 1901 to 1944-45 (*refer to Chart 5*), Australia's merchandise exports², in 2013-14 price terms³, grew from \$6.7 billion in 1901 to \$11.0 billion in 1944-45 (peaking at \$14.3 billion in 1936-37) representing an average annual growth of only 1.2 per cent.

Between 1901 and 1913 exports grew from \$6.7 billion to \$8.5 billion, in 2013-14 prices. Australia's exports consisted mainly of agricultural products, which resulted in export performance varying greatly year to year, due to the agriculture cycle. Exports fell during the first year of the First World War before growing back to pre-war levels by 1916-17, but falling again in the last year of the war. Export growth recovered slowly during the 1920s, to reach around \$11 billion by 1928-29. Exports fell to \$8.6 billion in 1930-31 during the height of the Great Depression before recovering to \$13.8 billion by 1939-40. With the start of the Second World War, exports again declined to a low of \$8.8 billion in 1942-43 due to the interruptions to shipping and access to our export markets.



The major exports between 1901 and 1944-45 were agricultural products such as *Wool, Wheat* and *Butter*. *Gold* was also important. Exports were heavily concentrated in these major products, with the top five exports in 1901 making up 66.3 per cent of the total, with *Wool* on its own making up over 30 per cent (*refer to Chart 7*). The importance of the top five exports remained high over this entire period, averaging around 61 per cent of the total.

² Data on Australia's trade in services is only available from 1945-46 onwards.

³ Trade data has been converted to 2013-14 prices based on the Reserve Bank of Australia Inflation calculator. These series do not represent trade volumes but are useful to compare trade values over a long time period without the impact of inflation.



financial

crisis

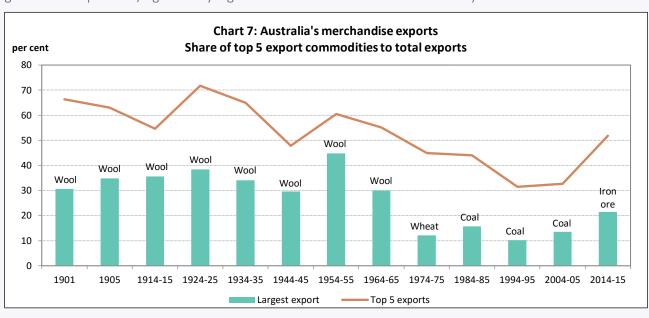
(a) Goods and services in 2013-14 dollars

Since the Second World War (*refer to Chart 6*), Australia's goods and services exports, in 2013-14 price terms, grew from \$18.3 billion in 1945-46 to \$311.9 billion in 2014-15, representing an average annual growth of 4.2 per cent, significantly higher than the first half of the 20th century.

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Post war boom



Export growth recovered quickly after the Second World War, with exports of goods and services more than doubling by 1950-51 to \$45.8 billion (in 2013-14 prices). The Korean War boom (with a large spike in wool prices), as it was called, was short lived, with exports declining sharply again to \$27.5 billion in 1951-52. Export growth during the 1950s to 1970s averaged 3.9 per cent per annum before accelerating to 4.5 per cent per annum on average from the 1980s as the Australian economy opened up to the world. Export growth has since slowed to 3.9 per cent per annum after 2004-05 as Australia experienced a significant increase in exports up to 2008-09 on the back of higher resources commodity prices (especially for iron ore and coal) followed by a flattening of export growth as commodity prices returned to historical levels.

Agricultural products still dominated exports during the 1950s and 1960s, with Wool, Wheat, Beef, Sugar and Butter being the major exports, even though agriculture as a share of Australia's economy had been in decline since the end of the Second World War (refer to Chart 8). It was in the 1970s that the composition of Australia's major exports started shifting towards resources. Exports of resources such as Coal, Iron ore, Natural gas and Gold became more important.

A\$b

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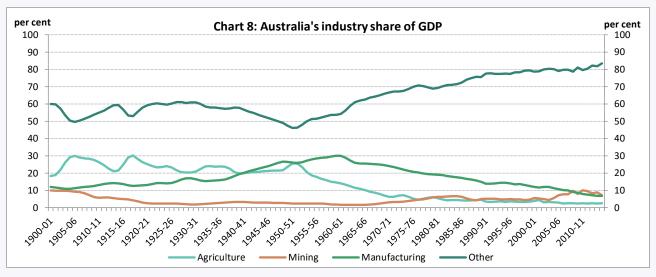
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Korean War

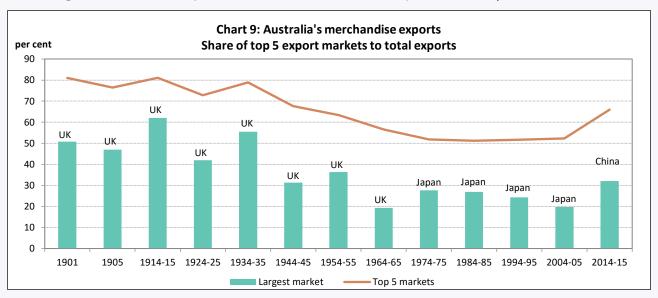




From the late 1980s exports of services also grew strongly, with *Personal travel services* (both education-related and other personal) and *Business services* becoming major exports. Short-term overseas visitor arrivals (tourism exports) to Australia increased from 40,000 movements in 1950, to one million by 1984 to 2.4 million by 1990 to nearly 7.5 million by 2015.

As Australia's exports base diversified, the concentration of our merchandise exports accounted for by the top five export commodities declined over the period to a low of just around 30 per cent in the 1990s to mid-2000s (*refer to Chart 7*). However, since the start of the resources boom this trend has reversed, with the share of the top five merchandise exports increasing sharply to stand at 51.8 per cent in 2014-15, the highest level since the 1950s.

Australia's top five merchandise export markets in 1901 accounted for 81.1 per cent of total exports. The share of the top five export markets over the period 1901 to 1944-45 ranged between 70 and 80 per cent – a much higher level than in the period after the Second World War (*refer to Chart 9*).



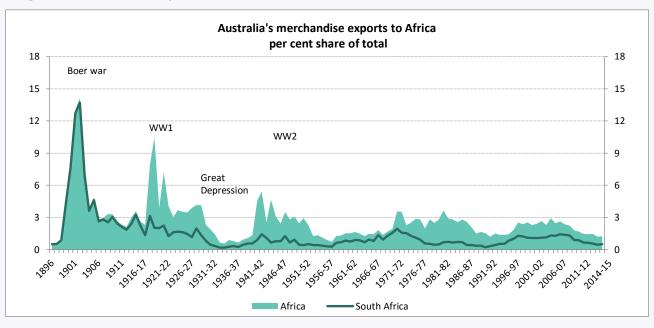
Reflecting political and social ties of the time, Australia's largest merchandise export market was the United Kingdom for the period 1901 to 1944-45 (*refer to Chart 9*), excluding the year 1941-42. In that year, the United States was Australia's most important market. The United Kingdom accounted for 50.7 per cent of total exports in 1901 rising to 62.0 per cent during the First World War. The United Kingdom as an export market remained over 50 per cent up to the start of the Second World War before declining to around one third of total exports in 1944-45.



Australia's largest merchandise export market remained the United Kingdom up to 1965-66. Japan became the largest market in 1966-67, and remained so until the late 2000s when it was overtaken by China. Australia's reliance on a small number of export markets declined over this period with the top five merchandise export markets accounting for around 70 per cent of exports in the late 1940s falling to around 50 per cent in the 1970s, 80s and 90s. However, from the start of the resources boom in the last half of the 2000s, the share has risen again with the top five markets now accounting for just over 65 per cent of Australia's merchandise exports in 2014-15 (with China accounting for 32.0 per cent).

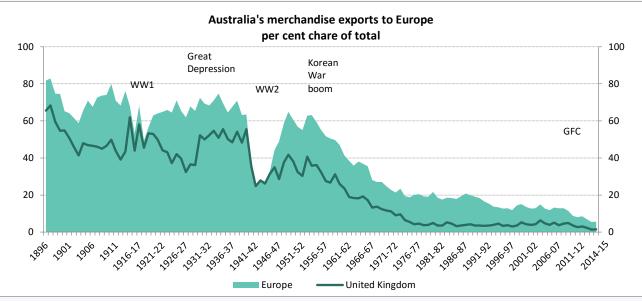
In terms of regions (*refer to Regional charts – exports*), Europe was the major market for Australia's exports in 1901 accounting for over 70 per cent of total merchandise exports. Europe was the dominant region for exports up to the end-1950s (excluding a short period in the Second World War). From the 1960s Asia rapidly grew as a destination for Australian exports, while Europe declined, with exports to Asia in 2014-15 accounting for over 80 per cent of total merchandise exports.

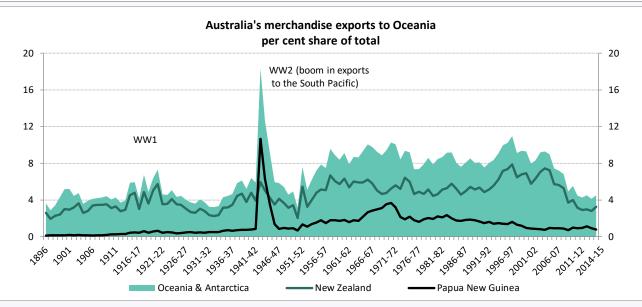
Regional charts - exports









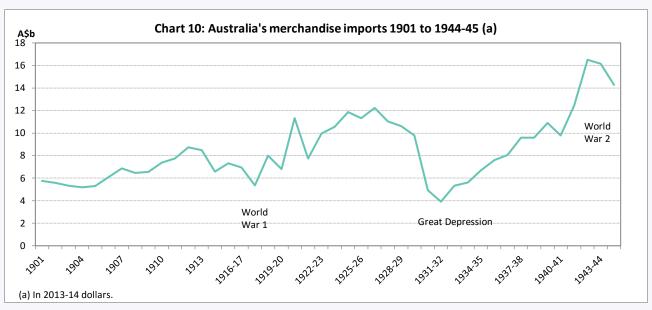




Australia's import performance over the first half of the 20th century was concentrated on intermediate and capital goods. The major source for these imports was the United Kingdom, though the United States became more important, especially during the Second World War. Import growth during the period was moderate but with severe disruptions, as with exports, during both world wars along with a much more significant decline in imports during the Great Depression.

Australia's import performance after the Second World War was strong compared to the first half of the century and became more important to the Australian economy especially from the 1980s onwards as the Australian economy opened up to the world. The major sources for Australia's imports also shifted from the United Kingdom in the 1950s, to the United States and Japan in the 1970s, 80s and 90s, and then to China in the late 2000s.

Over the period 1901 to 1944-45 (*refer to Chart 10*), Australia's merchandise imports⁴, in 2013-14 price terms, grew from \$5.8 billion in 1901 to \$14.3 billion in 1944-45, representing an average annual growth of 1.5 per cent. The major merchandise imports into Australia in 1901 were: *Textiles, clothing & footwear*, *Metal manufactures, Iron & steel, Machinery, Timber* and *Sugar*.

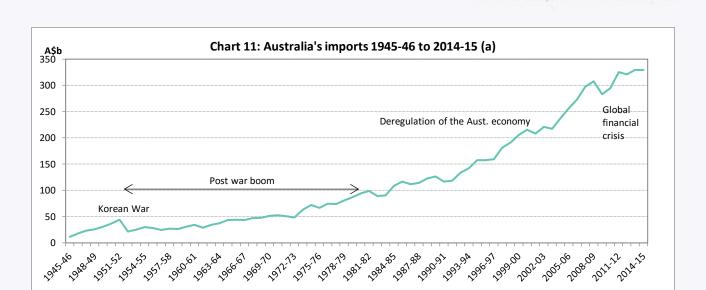


Merchandise imports grew between 1901 and 1913 from \$5.8 billion to \$8.5 billion in 2013-14 prices, before declining to a low of \$5.4 billion in 1917-18 at the height of the German campaign against Allied merchant shipping during the First World War. Import growth recovered during the 1920s, to reach \$12.2 billion by 1926-27. As with exports, imports collapsed during the Great Depression but at a far greater rate, falling to a record low of \$3.9 billion in 1931-32 (just 7.4 per cent of GDP). Import growth slowly recovered during the late 1930s, before increasing strongly during the Second World War with imports growing to around \$16 billion per year to support the Australian war effort.

Since the Second World War (*refer to Chart 11*), Australia's goods and services imports, in 2013-14 price terms, grew from \$11.9 billion in 1945-46 to \$334.4 billion in 2014-15, representing an average annual growth of 4.4 per cent, significantly higher than the first half of the 20th century.

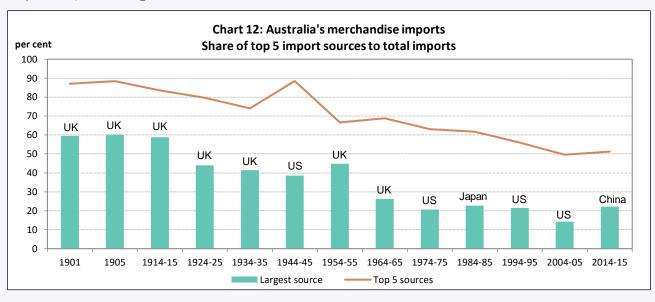
By the 1950s, the major imports still included *Machinery*, *Textiles*, *clothing & footwear*, *Metal manufactures* and *Iron & steel*, however *Petroleum oils* and *Vehicles & parts* had also become major imports.

⁴ Data on Australia's trade in services is only available from 1945-46 onwards



By 2014-15, the major imports into Australia were: *Petroleum oils, Passenger motor vehicles, Telecommunications equipment*, and *Computers*. Imports of *Freight* and *Passenger transport services* were also important for all time periods. There has also been strong growth in Australians travelling abroad in the last ten years, with imports of *Personal travel services (excluding education)*, becoming Australia's single largest import item from 2008-09. Short-term resident departures (tourism imports) from Australia increased from 30,000 movements in 1950, to one million by 1978, to over three million by 2000 to nearly 9.5 million by 2015.

Australia's top five merchandise import sources in 1901 accounted for 87.0 per cent of total imports (*refer to Chart 12*). The share of the top five import sources over the period 1901 to 1944-45 ranged between 75 and 90 per cent, a much higher level than after the Second World War.



Australia's largest merchandise import source was the United Kingdom for the period 1901 to 1941-42. The United Kingdom accounted for around 60 per cent of total imports in 1901 and maintained that level to the First World War. The United Kingdom as an import source declined to around 40 per cent up to the Second World War. The United States became Australia's most important import source in 1942-43, at the height of the Japanese military threat to Australia and maintained the top position through to 1944-45.

Since the Second World War, Australia's reliance on a small number of import sources has declined, with the top five merchandise import sources accounting for over 80 per cent of imports in the late 1940s, falling to

(a) Goods and services in 2013-14 dollars.

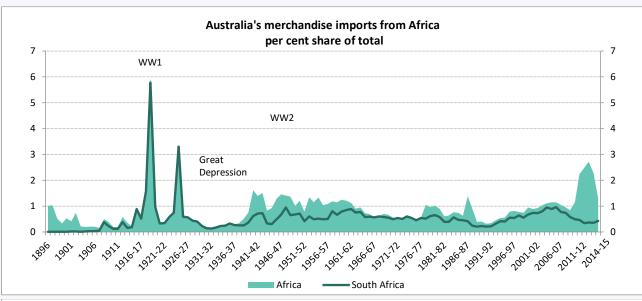


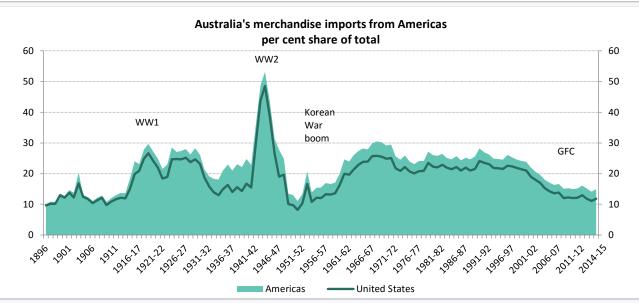
around 65 per cent in the 1950s, 60s and 70s, and then falling to around 50 per cent by the end of the century. Unlike exports, there was only a small rebound in the share of total imports by the top five source countries in recent years.

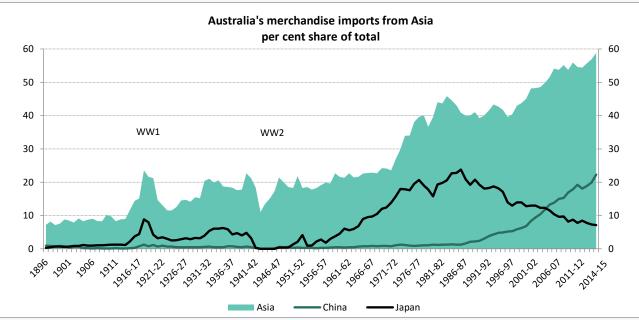
Australia's largest merchandise import source switched back to the United Kingdom after the Second World War and remained so until the late 1960s before the United States again became Australia's largest import source. Japan became the largest source of imports between 1983-84 and 1986-87 before reverting back to the United States. China became Australia's largest import source from the mid-2000s onwards.

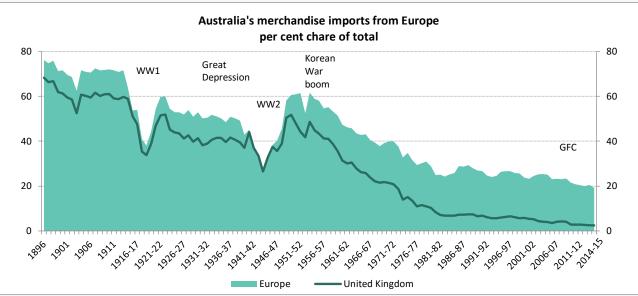
In terms of regions (*refer to Regional charts – imports*), Europe was the major source for Australia's imports in 1901 accounting for around 70 per cent of total merchandise imports. America's share of imports rose rapidly during the First World War however Europe remained the dominant region for imports up to the mid-1960s (excluding a short period in the Second World War). From the 1970s Asia rapidly grew as a source for Australia's imports, while Europe and the Americas declined. Asia continued to rise in importance during the 2000s, with Asia now accounting for nearly 59 per cent of total merchandise imports in 2014-15.

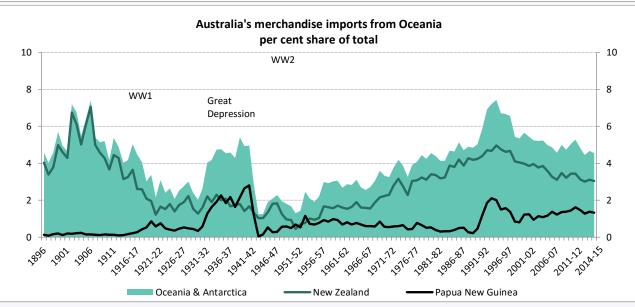
Regional charts - imports





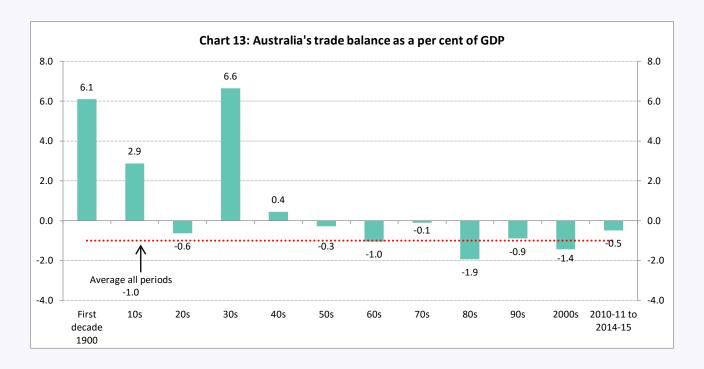






Australia's trade balance 1901 to 2014-15

With the changing composition of Australia's trade since 1901, Australia's trade balance (exports minus imports) has also fluctuated between trade surpluses (exports greater than imports) and trade deficits (imports greater than exports). Since 1901 Australia has averaged a trade deficit equivalent to -1.0 per cent of Australia's GDP (*refer to Chart 13*).



On average, Australia recorded trade surpluses for the first five decades of the 20th century (except for the 1920s). From the 1950s to the end of the first decade of the 21st century every decade recorded a trade deficit. For the first five years of the second decade (2010-11 to 2014-15) Australia has so far recorded a trade surplus for 2010-11 only.

Australia's terms of trade 1900-01 to 2014-15

The terms of trade is an index that 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. Conversely, 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.

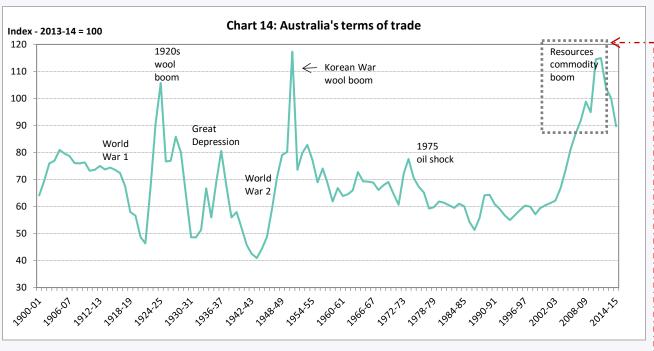
Chart 14 shows Australia's terms of trade from 1900-01 to 2014-15. Australia's terms of trade has recorded three large spikes as a result of commodity booms over this period due to large increases in export prices in the early 1920s, early 1950s and for the recent resource boom from 2003-04 to 2011-12.

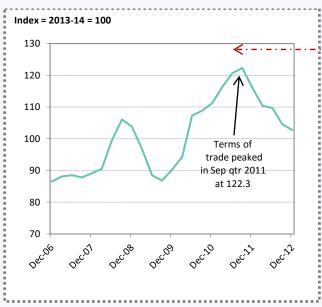
The 1920s commodity boom was driven by an increase in wool prices (then Australia's largest export commodity). The export prices of other agricultural goods and mineral prices did not rise in this period. The 1950s commodity boom (or the Korean War boom) was also brought on by a rise in wool prices. However, with this boom other agricultural prices and mineral prices also rose sharply. The present day boom was

driven by rises in resources commodities prices (mainly iron ore and coal), with the terms of trade peaking in the September quarter 2011 (the highest level in 140 years)⁵.

Both the 1920s and the 1950s commodity booms were short-lived with the terms of trade falling sharply after a short period of time. However, the more recent resources boom has lasted several years, with commodity prices, though down from their recent peaks, still well above the prices recorded before the boom.

The terms of trade also shows three periods of sharp downward spikes: the first after the end of the First World War; the second during the Great Depression in the 1930s; and the third at the end of the Second World War.





⁵ ANU Discussion paper No 605 – Commodity Price Shocks and the Australian Economy since Federation – Sambit Bhattacharyya and Jeffrey G. Williamson, April 2009.

Australia's international investment – growing link with trade

Australia has always been a net importer of foreign capital. The domestic savings of a relatively small Australian population needed to be supplemented by savings from overseas. The ability to access capital from the world economy allowed Australia much greater investment capacity to develop its economy. This growth in Australia's international investment, especially in terms of direct investment (largely investment in foreign affiliates)⁶, is increasingly integral to Australia's trading relationship with the world.

Australia's trade, as captured in balance of payments and merchandise statistics, does not cover trade provided by an Australian commercial presence abroad, or trade provided in Australia by a foreign-owned enterprise. For services in particular it is often necessary for a company to set up a commercial presence in the host country to provide the service (known as foreign affiliates' trade).

A one-off study by the ABS in 2002-03 found that foreign affiliates' trade was significant for Australia, with 48 per cent of the provision of Australian goods and services to the world coming from an Australian commercial presence abroad, valued at \$142.3 billion (or outwards foreign affiliates' trade) compared to direct exports of around \$150 billion⁷. The ABS also conducted a one-off study of inwards foreign affiliates' trade in 2000-01. It found that foreign-owned companies in the Australian economy (excluding the agriculture, forestry and fishing sector) accounted for around 21 per cent of total gross value added for these industries valued at \$78.1 billion, compared to imports into Australia of around \$155 billion for the same period⁸.

Though the ABS does not produce regular statistics on Australia's foreign affiliates' trade, data on international direct investment levels (or stocks) can be used as an indicator of this activity. *Chart 15* shows the increasing importance of both the level of Australian direct investment abroad and foreign direct investment in Australia (as a proportion of GDP) since the 1950s.

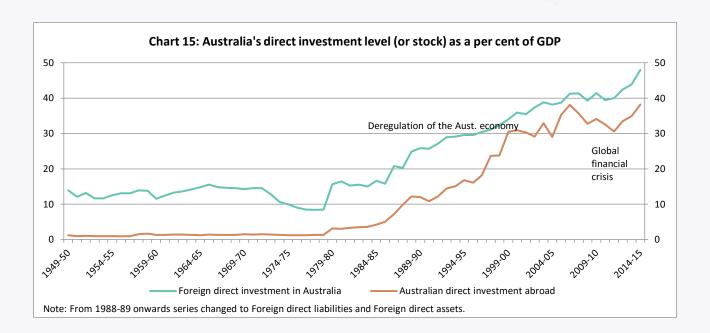
The level of foreign direct investment as a ratio to GDP averaged around 13 per cent in the 1950s and 1960s before falling to under 10 per cent in the 1970s. Since the opening up of the Australian economy the ratio to GDP has steadily grown to stand at 48.0 per cent in 2014-15.

The level of Australian direct investment abroad however accounted for only an average of 1.3 per cent of GDP from the 1950s to the end of the 1970s. It was only with the deregulation of the Australian economy that Australian direct investment abroad grew, peaking at 38.1 per cent of GDP in 2006-07. Outward direct investment values have fallen in recent years as a result of the Global Financial Crisis (GFC) with the ratio falling to 30.5 per cent by 2011-12 before recovering to 38.2 per cent in 2014-15, the first time they have exceeded the pre GFC peak. Outward investment has been impacted by the GFC more than inwards investment due to the bulk of Australian direct investment abroad being invested in the North American and European regions (economies which were heavily impacted by the GFC).

⁶ Please note, in ABS international investment statistics, direct investment is determined when the investor owns 10 per cent or more of the equity stock in the enterprise. For foreign affiliates trade statistics, an affiliate is defined when the investor owns 50 per cent or more of the equity stock in the enterprise.

⁷ <u>ABS catalogue 5495.0, Australia's Outwards Foreign Affiliates Trade, 2002-03</u> and DFAT's *Trade in Services, Australia, 2003-04* – feature <u>article Australia's Outwards Foreign Affiliates Trade, 2002-03</u>.

⁸ ABS catalogue 5494.0, Economic Activity of Foreign owned Businesses in 2000-01.



Conclusion

Australia's trade has always been a key component of the economy. This article is part of a project to make available to the public some of the extensive historical trade data that the DFAT Statistics Section (STA) stores in its statistical library. Much of the data is stored in the form of paper publications and is inaccessible for most users of trade data. To help address this issue, STA is releasing two time series spread sheets that have been compiled from these historical trade publications in conjunction with this article.

The first time series spread sheet, *Australia's trade and economic indicators*, provides time series data for a selection of Australian economic and trade indicators, including:

- Australia's population, short-term visitor arrivals and resident departures
- Australia's Gross Domestic Product (GDP), the terms of trade and the unemployment rate;
- Australian merchandise trade (total exports, imports and balance of trade);
- Australia's trade in goods and services;
- Australia's international investment position; and
- Ratio of Australia's trade and investment to GDP.

The second time series spread sheet, <u>Australia's direction of merchandise trade</u>, provides time series data for around 60 of Australia's major merchandise trading partners back to 1901 (and for some series back further).

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ANNEX – DATES AND CHART SOURCES

Important dates in history	
1899 to 1902	Boer War
1914 to 1918	World War 1 (WW1)
1930 to 1932	Great Depression
1939 to 1945	World War 2 (WW2)
1950 to 1953	Korean War
1950s & 1960s	Post war boom
1980s	Deregulation of the Australian economy
2003-04 to present	Resources boom
2007 to 2009	Global financial crisis (GFC)

Chart sources	
Charts 1, 2, 3	ABS Overseas trade – various editions
	DFAT STARS database based on ABS catalogue 5368.0
	ABS catalogue 5302.0
	ABS National Accounts – various issues.
Chart 4	United States: BEA & Historical Statistics of the United States, Colony Times to 1970 – US Department of Commerce – Bureau of Census
	United Kingdom: Bank of England – Three centuries of statistics and UK Office of National Statistics
	Latest years: OECD main economic indicators
Charts 5, 9, 10	ABS Overseas trade – various editions
	DFAT STARS database based on ABS catalogue 5368.0
	ABS catalogues 5302.0 & 5363.0
Charts 6, 8, 11,	ABS Overseas trade – various editions
	DFAT STARS database based on ABS catalogue 5368.0
Chart 7	N.G. Butlin Australian National Accounts 1788 to 1983
	ABS Australian National Accounts 1948-49 to 1960-61
	ABS catalogue 5204.0 2011-12
	Reserve Bank of Australia – Australian Economic Statistics 1949-50 to 1996-97 Occasional Paper No. 8
	DFAT estimate – 1939-40 to 1948-49
Chart 12	ABS Overseas trade – various editions
	DFAT STARS database based on ABS catalogue 5368.0

	ABS catalogues 5302.0 & 5363.0.
Chart 13	Christian Gillitzer and Jonathan Kearns (years 1900-01 to 1948-49) ABS catalogues 5204.0 & 5206.0.
Chart 14	ABS catalogue 5302.0 ABS catalogue 5363.0, 1996-97 Reserve Bank of Australia – Australian Economic Statistics 1949-50 to 1996-97 Occasional Paper No. 8
Regional export and import charts	ABS Overseas trade – various editions DFAT STARS database based on ABS catalogue 5368.0