

International trade, foreign direct investment and global value chains



2017

AUSTRALIA

TRADE AND INVESTMENT STATISTICAL NOTE

International trade and foreign direct investment (FDI) are the main defining features and key drivers of global value chains (GVCs). However, despite their strong complementarities, the two flows are typically presented and treated separately in the statistical information system. Drawing on new and improved measures of trade and investment, this country note provides relevant statistical information from OECD databases on trade, investment, the activities of multinational enterprises (MNEs) and global value chains (TiVA). It sheds new light on the trade-investment nexus by highlighting the interrelationships between trade and FDI, their economic impact in the context of GVCs, and the role of MNEs as the main directors of these flows. The data are as of 1 May 2017. More information and country notes are available at www.oecd.org/investment/trade-investment-gvc.htm.

Less than one-fifth (17% in 2014) of economic activity (GDP) in Australia depends on foreign markets, a share similar to that of Japan. This is one of the lowest values in the OECD, and likely reflects a combination of factors, including geographic location, the size of the domestic economy, and the low import content of exports. Australia's FDI is more inward orientated than outward, with its share of the OECD outward FDI stock falling below its share of OECD GDP, but its share of the OECD inward FDI stock exceeding its share of the OECD GDP.

Gross bilateral trade figures can disguise the true nature of trade interdependencies, particularly between final consumers in one country and producers at upstream parts of the value chain. Value added data indicate that the United States is actually a more important destination for Australian exports than Korea. On the import side, the United States moves ahead of China once value added data are used, while Singapore falls behind the United Kingdom, Germany and New Zealand.

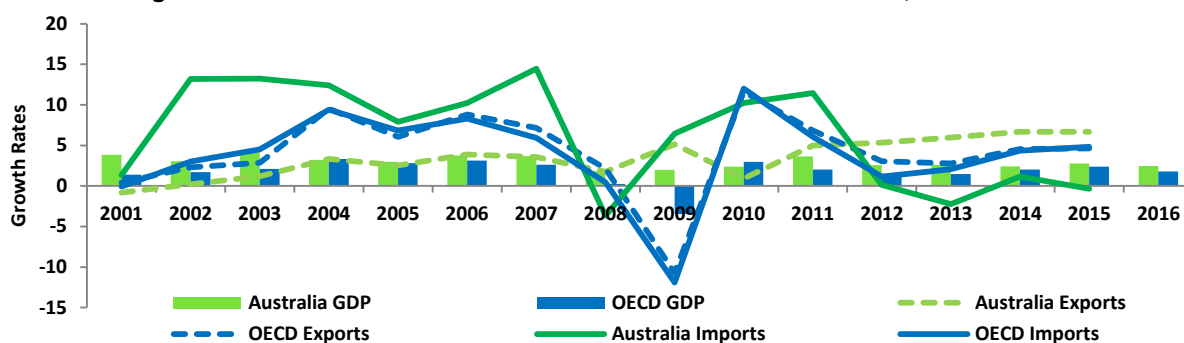
The top manufacturing exporting industries in Australia are basic metals (MET), food and beverage (FOD) and chemicals and chemical products (CHM). The basic metals industry is highly export orientated, with 85% of domestic value added meeting foreign demand, and has one of the highest import content of exports at 39%, illustrating how imports and exports can go hand in hand. Australia's services content in its exports at 49% is below the OECD median, and this is correlated with a relatively low share of its inward investment going to the services sector.

Trade and investment in Australia

Growth in exports has recovered strongly since the crisis, while import growth has slowed

Australian export growth fared much better than most OECD countries during the financial crisis, and continued strongly at 6.7% (above the OECD rate) in 2015. Import growth behaved quite differently, growing faster pre- and post- 2008 than the OECD rates and, since 2012, has been below or close to zero.

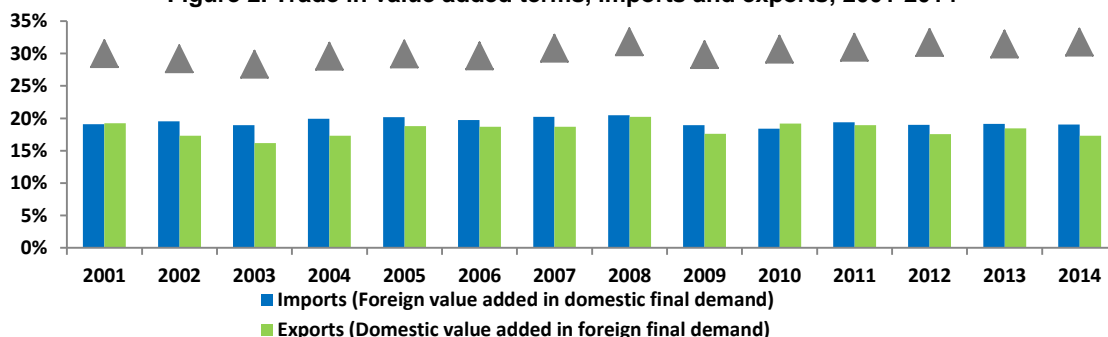
Figure 1. Growth rates of trade and GDP for the OECD and Australia, 2001-2016



Source: OECD SNA

Gross exports amounted to USD 234 billion in 2016 (20 % of GDP), and gross imports to USD 262 billion (23% of GDP). Gross trade figures however overstate the ‘real’ contribution of trade to the economy. In value-added terms, exports contributed 17% of total GDP in 2014, significantly below the OECD median (grey diamond). The contribution of direct and indirect imports to domestic final demand measured 19% in 2014.

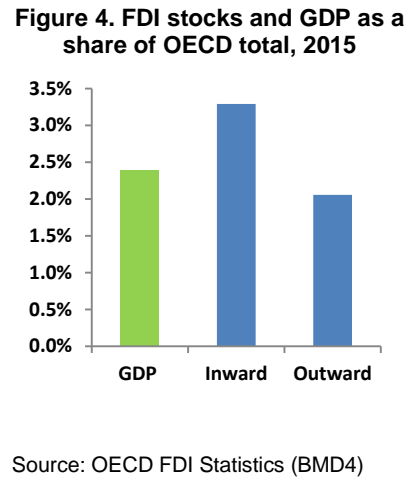
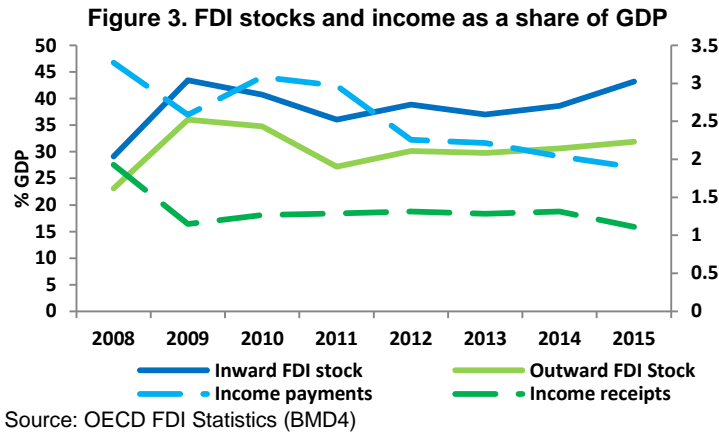
Figure 2. Trade in value added terms, imports and exports, 2001-2014



Source: OECD-WTO Trade in Value Added Data

Investment is more inward than outward orientated

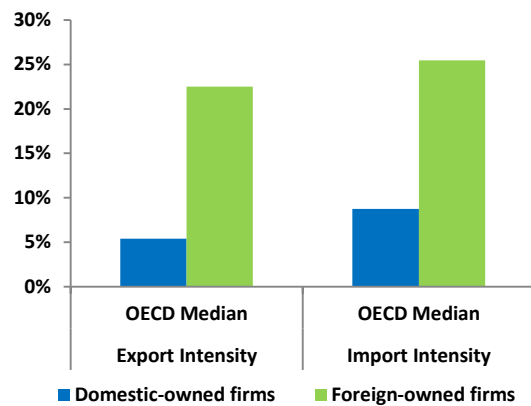
Australian inward and outward FDI stocks have moved together since 2008, keeping the stock of inward FDI higher, equivalent to 43% of GDP in 2015 (Figure 3). In 2015, Australia’s share of the OECD total inward FDI stock (3.3%) was higher than its share of GDP (2.4%), but its share in outward stock was 2.1% of the OECD total, lower than its share of GDP (Figure 4).



Foreign owned firms are typically more export intensive than domestically owned firms

On average, foreign-owned firms in the OECD are more export intensive (share of exports in turnover) than domestically owned firms. In large countries, when foreign affiliates are driven by market seeking motives, the export intensity of foreign owned firms can be lower. The import intensity of foreign-owned firms (share of imports in purchases) is also typically higher for foreign-owned than domestic firms. Data on the export and import intensities of foreign-owned firms in Australia are not available.

Figure 5. Export and import intensity of domestic and foreign-owned enterprises

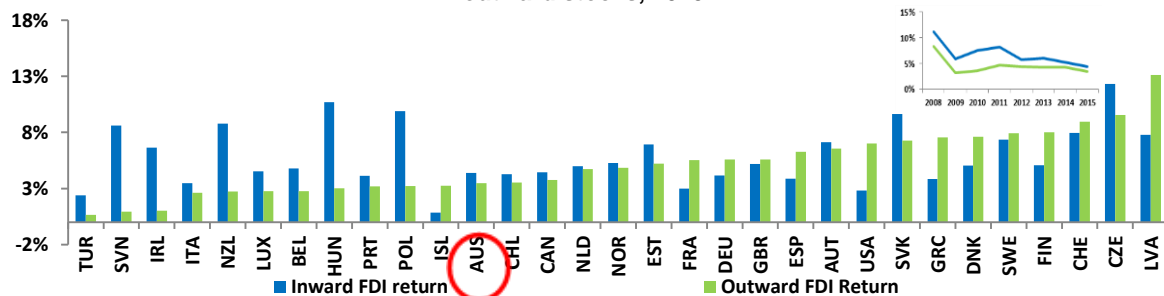


Source: OECD AMNE and Trade by Enterprise Characteristics (TEC) statistics (2011)

Domestic MNEs provide important channels to penetrate foreign markets via affiliates...

In 2015, Australia received USD 13 billion in income from its outward investment, equivalent to approximately 1.1% of GDP. Australia's rate of return at 3.5% (green bar) on its outward FDI is below the OECD median, and has been trending down since 2011 (see chart insert). On the other side, the return to foreign investors in Australia was 4.4% in 2015, close to the median of OECD countries.

Figure 6. Return on investment, income receipts and payments as a share of inward and outward stocks, 2015

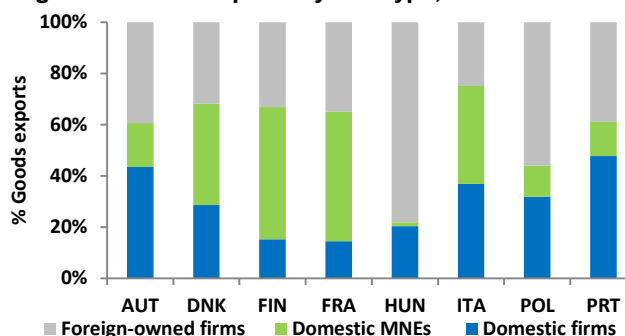


Source: OECD FDI Statistics (BMD4)

...or via exports

Looking across a selection of European economies, MNEs play a significant role in GVC integration. In some countries it is through the activity of MNE parents, while for others, it is foreign-owned firms. In each country with available data, at least half of all goods exports are conducted by MNEs. Similar data are not available for Australian firms.

Figure 7. Goods Exports by firm type, the role of MNEs

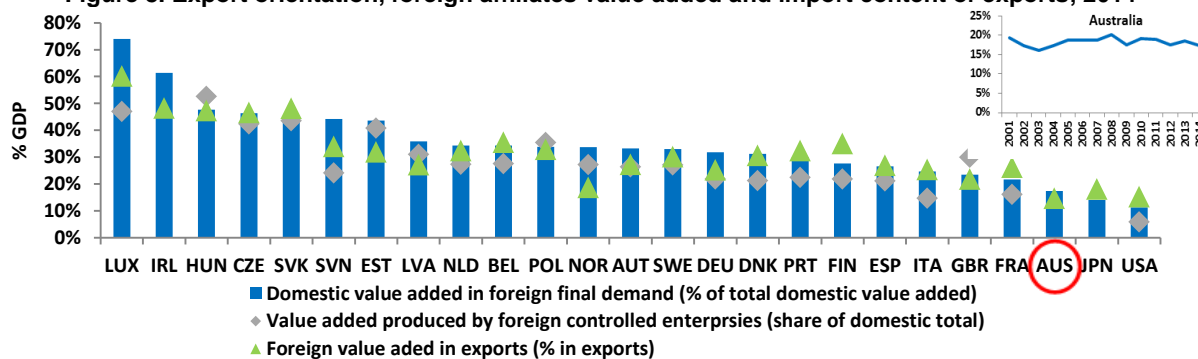


Source: OECD TEC statistics (2011)

But Australia's export orientation is low relative to many similarly sized economies.

Exports (in value added terms) contribute around 17% of Australian GDP, this is relatively low compared to other OECD economies, but comparable with Japan, which may in part reflect Australia's geographic location and, although it receives substantial inward investment (concentrated in mining), it has low GVC integration as measured by the import content of exports. A low import content of exports is typical of countries with natural resources; for Australia, this reflects the high mineral content of its exports. Australian export orientation has fluctuated somewhat over the last decade, possibly reflecting commodity price variations (see insert chart).

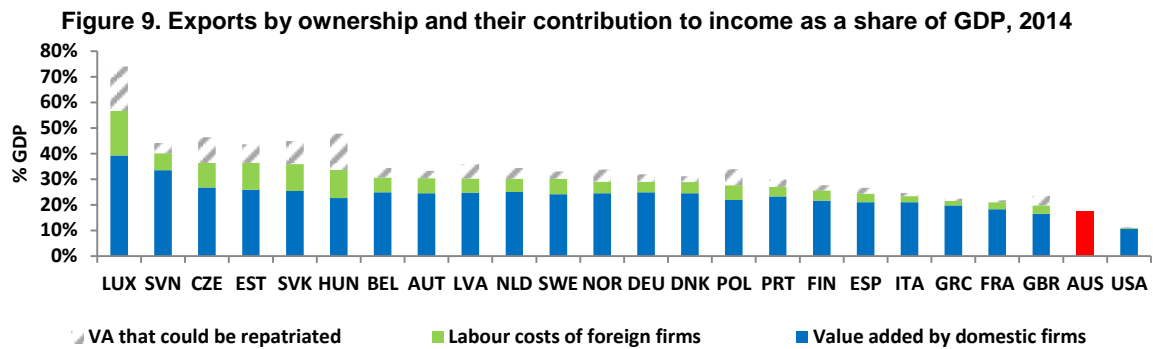
Figure 8. Export orientation, foreign affiliates value added and import content of exports, 2014



Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

Not all of the domestic value added content of exports sticks in the economy...

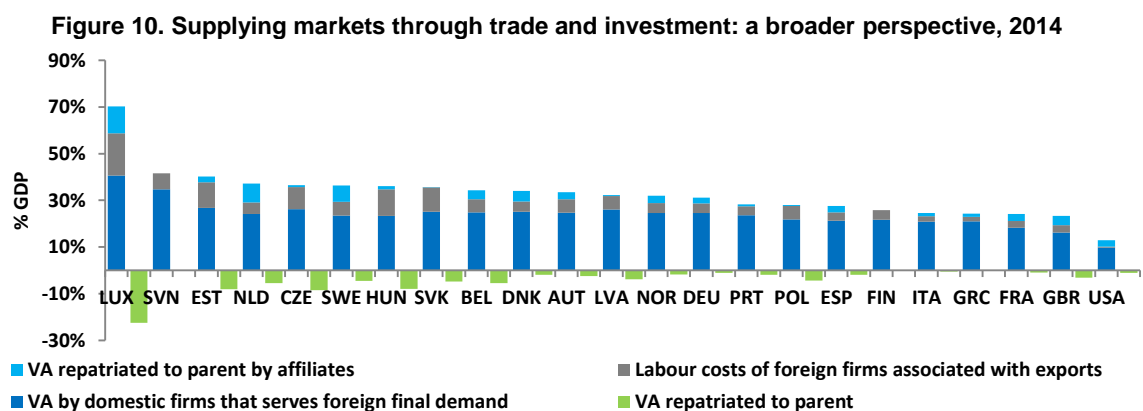
Gross export figures overstate the real economic impacts of trade to the exporting economy, but TiVA estimates can also overstate these impacts as the profits earned by foreign-owned firms through exports are repatriated if they are not reinvested. Figure 9 illustrates the importance of these flows across countries by showing the value added in exports of domestically-owned firms (blue bar), wages paid by foreign-owned firms (green bar), and profits of foreign-owned firms (grey bar), which in practice can be repatriated. The split cannot be calculated for Australia due to data availability.



Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

Taking a broader view by including the income of foreign affiliates can provide a more complete picture of the international orientation of the Australian economy

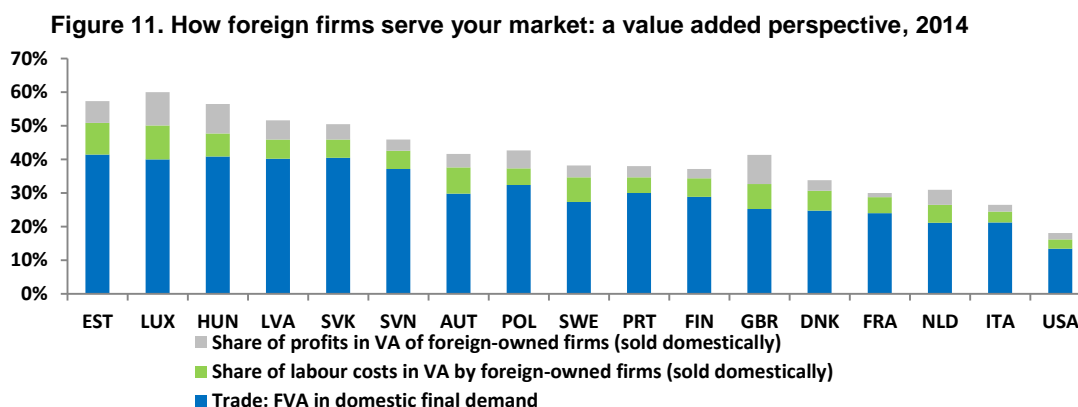
Firms serve foreign markets by exporting or by selling through their foreign affiliates. Figure 10 takes a broader view of an economy's international orientation by taking account of both trade and investment. The chart begins with the domestic value added in exports that remains in the economy – exports of value added by domestic firms (blue bar) and wages paid by foreign-owned firms associated with exporting (grey bar) – and adds to it the profits that domestic MNEs receive from the activities of their foreign affiliates as measured by FDI income receipts (light blue bar). The income payments made to foreign parents are presented for information purposes (green bar). This broader measure cannot be calculated for Australia due to data availability, however it would likely be lower than the TiVA measure of export orientation as Australia is a net recipient of FDI.



Source: OECD-WTO Trade in Value Added Data, OECD AMNE and OECD FDI (BMD4) statistics

This broader perspective can also shed light on how foreign firms serve the domestic market

Foreign producers supply products and services for final consumption through trade, measured as foreign value added in domestic final demand (blue bar), and sales by foreign affiliates sold domestically (green and grey bar) (Figure 11). Foreign production can be split between labour costs and profits, the profit component of value added by foreign-owned firms can be repatriated to the parents. Due to limited data availability the following chart cannot be produced for Australia, but it is likely that foreign firms serve the Australian market more through trade than through investment as in other economies.



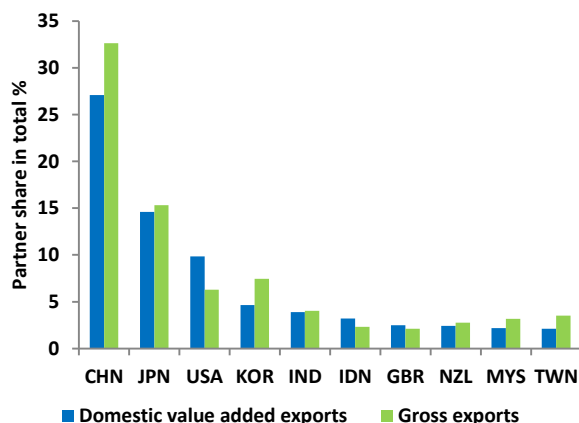
Source: OECD-WTO Trade in Value Added Data, OECD AMNE and OECD TEC statistics

Trade and investment by partner country

Trade measured from a value added perspective better reflects the bilateral relationships...

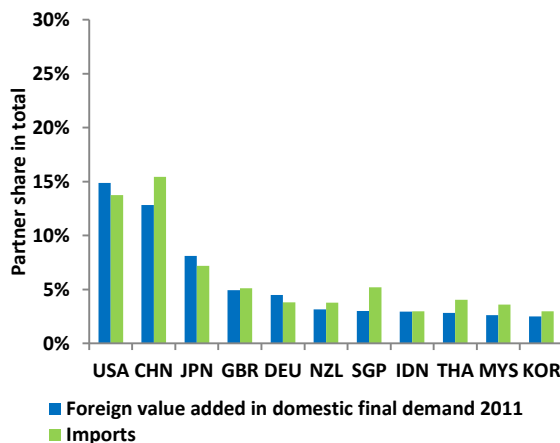
Gross bilateral trade figures can disguise the true nature of trade interdependencies, particularly between final consumers in one country and producers at upstream parts of the value chain. Value added data indicate that the United States is actually a more important destination for Australian exports than Korea. On the import side, the United States moves ahead of China once value added data are used, while Singapore falls behind the United Kingdom, Germany and New Zealand.

Figure 12. Exports: gross and value added terms, by partner country, 2014



Source: OECD-WTO TiVA Data

Figure 13. Imports: gross and value added terms, by partner country, 2014

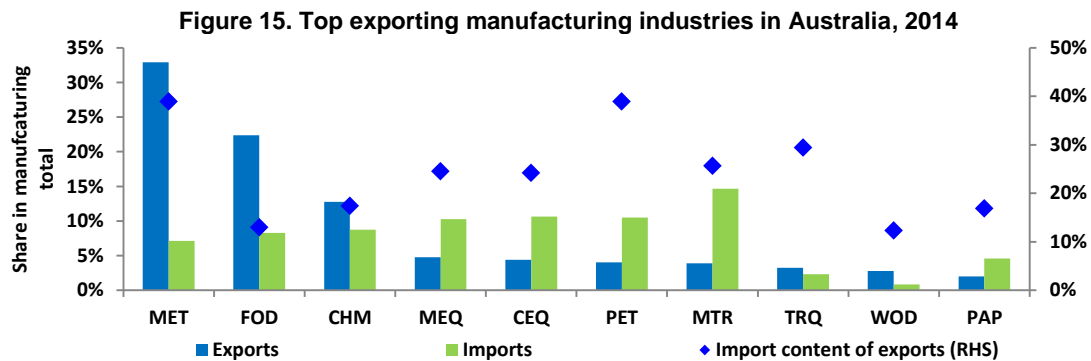


Source: OECD-WTO TiVA Data

Figure 14, supplying the domestic market through trade and investment cannot be produced for Australia due to data availability.

Trade and investment by industry

The top manufacturing exporting industries in Australia are basic metals (MET), food and beverage (FOD) and chemicals and chemical products (CHM). The import content of exports varies across industries—illustrating the role that importing plays in supporting exports and indicating the degree of GVC integration of these industries.

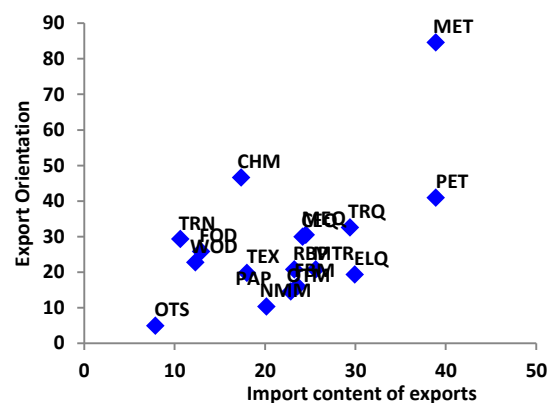


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics. See page 9 for a description of industry codes.

Exports and imports go hand in hand...

Across most industries there is a positive correlation between higher import content of exports and a higher share of their domestic value-added being exported (export orientation) illustrating the strong complementarity of exports and imports (Figure 16). Figure 17, which plots the share of value added by foreign owned firms and the import content of exports, cannot be produced for Australia due to data limitations. Figure 18, goods trade by ownership and industry, cannot be produced for Australia due to data limitations.

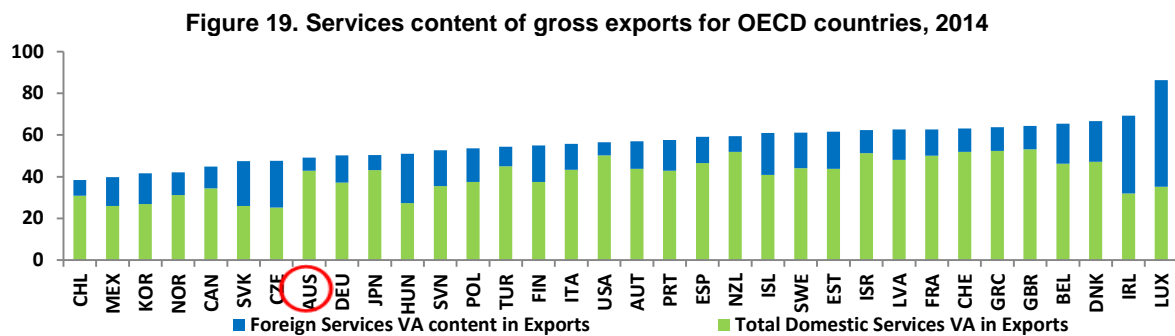
Figure 16. Import content of exports and export orientation



Source: OECD-WTO TiVA data and OECD AMNE statistics

Service industries play an important role in the export orientation of an economy...

Typically, services account for a large share of the value added in the economy, but conventional gross trade statistics understate this as they cannot reveal the contribution that the upstream services industry plays in the production of goods exports. Accounting for this contribution, the services content of Australia's total exports of goods and services was 49% in 2014 (Figure 19), below the OECD median of 57%. Considering the services content of manufactured goods alone, 36% of manufacturing exports reflects services value added, equivalent to the OECD average of 36%.

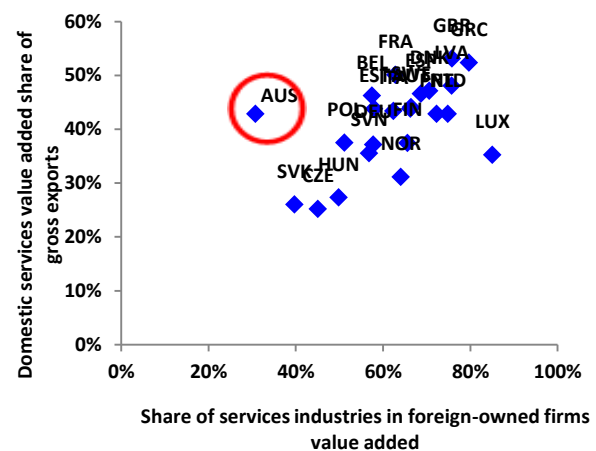


Source: OECD-WTO TiVA Data

...and so inward FDI in the services sector can be an important channel for export success

Greater foreign investment in the services sector is associated with higher services content in exports. For Australia, the share of investment in services is at the lower end for OECD economies which could contribute to its relatively low services content in exports.

Figure 20. Share of services industries in foreign-owned firms' value added and domestic services value added share of gross exports, OECD countries, 2014



Source: OECD-WTO TiVA Data and OECD AMNE statistics

Links and data sources

Guide to the trade and investment statistical notes

www.oecd.org/investment/Guide-trade-investment-statistical-country-notes.pdf

Activity of Multinational Enterprises - AMNE www.oecd.org/sti/ind/amne.htm

OECD Benchmark Definition of Foreign Direct Investment - 4th Edition (BMD4)

(see Chapter 8 for information on the intersection of AMNE and FDI data)

www.oecd.org/investment/fdibenchmarkdefinition.htm

Foreign Direct Investment (FDI) Statistics www.oecd.org/investment/statistics.htm

Trade by Enterprise Characteristics - TEC

www.oecd.org/std/its/trade-by-enterprise-characteristics.htm

Trade in Value Added - TiVA

www.oecd.org/sti/ind/measuringtradeinvalue-addedanoecd-wtojointinitiative.htm

Annex: Further data requirements

To make this note as informative as those of other OECD countries, more detailed data about Australian trade and investment are needed. Primarily, more complete data on foreign-owned firms or inward AMNE statistics at the aggregate, industry and partner country level. Data on the value added by foreign-owned firms, their labour and personnel costs and gross operating surplus would greatly enhance the extent of the analysis that could be completed (Figures 8, 9, 10, 11, 13,16, 17). Secondly, data on trade by enterprise characteristics (TEC) would benefit the analysis. This is important to investigate the role of domestic enterprises and whether Australia is at the start of GVCs, in this vein not only trade by domestic or foreign –owned firms, but information on the domestic enterprises; whether they are domestic MNEs or domestic non-MNEs is important.

Table of industry codes

Industry Type	Ind Code	Industry Description
Primary Industries	AGR	Agriculture, hunting, forestry and fishing
	MIN	Mining and quarrying
Manufacturing	FOD	Food products, beverages and tobacco
	TEX	Textiles, textile products, leather and footwear
	WOD	Wood and products of wood and cork
	PAP	Pulp, paper, paper products, printing and publishing
	PET	Coke, refined petroleum products and nuclear fuel
	CHM	Chemicals and chemical products
	RBP	Rubber and plastics products
	NMM	Other non-metallic mineral products
	MET	Basic metals
	FBM	Fabricated metal products except machinery and equipment
	MEQ	Machinery and equipment n.e.c
	CEQ	Computer, electronic and optical products
	ELQ	Electrical machinery and apparatus n.e.c
	MTR	Motor vehicles, trailers and semi-trailers
	TRQ	Other transport equipment
	OTM	Manufacturing n.e.c; recycling
Services	EGW	Electricity, gas and water supply
	CON	Construction
	WRT	Wholesale and retail trade; repairs
	HTR	Hotels and restaurants
	TRN	Transport and storage
	PTL	Post and telecommunications
	FIN	Finance and insurance
	REA	Real estate activities
	RMQ	Renting of machinery and equipment
	ITS	Computer and related activities
	BZS	Research and development & Other Business Activities
	GOV	Public admin. and defence; compulsory social security
	EDU	Education
	HTH	Health and social work
	OTS	Other community, social and personal services
	PVH	Private households with employed persons