

# International trade, foreign direct investment and global value chains



2017

## CHILE

### 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](http://www.oecd.org/investment/trade-investment-gvc.htm).

Over one-quarter (28% in 2014) of economic activity (GDP) in Chile depends on foreign markets, below the OECD median but around the same as in Finland and Spain. The import content of exports, an indicator of GVC integration is also comparatively low for Chile; this possibly reflects its geographic location and the importance of minerals to its exports. However, relative to its share in OECD GDP, both Chile's inward and outward direct investment is larger. Direct investment is mainly inward orientated, and was equivalent to 92% of GDP in 2015.

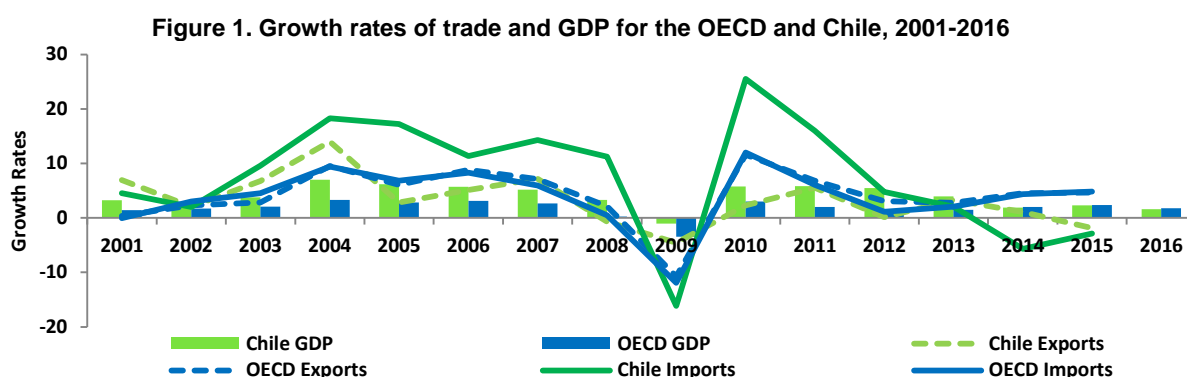
Gross bilateral trade figures can disguise the true nature of trade interdependencies, particularly between final consumers in one country and producers at upstream parts of the value chain. For example, gross figures suggest Spain is a more important destination for Chilean exports than Germany, India and Argentina, but value added data show this is not the case. On the import side, value added data indicate that Peru is actually a less important supplier to the Chilean market than Germany and Argentina.

The top manufacturing exporting industries in Chile are basic metals (MET) and food and beverages (FOD). Although the export orientation of Chilean industries varies, the import content of exports across Chilean industry is low and fairly homogenous, and this has not changed substantially over time. Chile has one of the lowest services content in its exports at 38%, and this is correlated with a relatively low share of its inward investment going to the services sector.

# Trade and investment in Chile

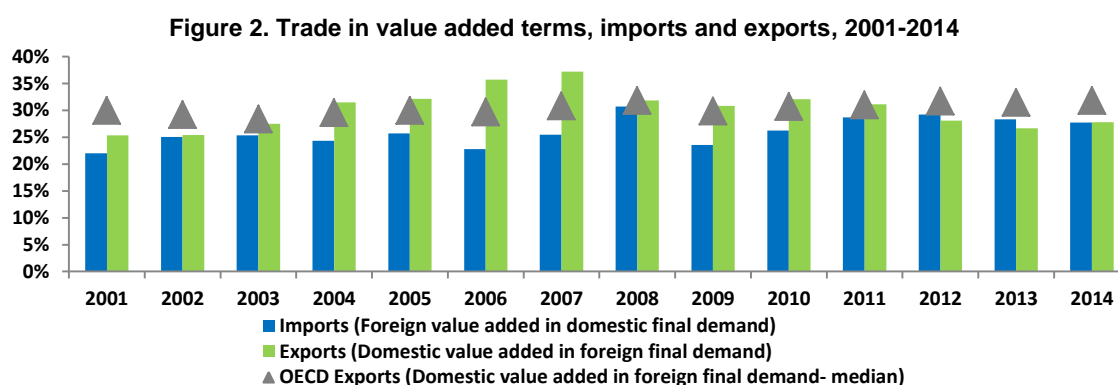
## Growth in trade had recovered since the global crisis but slowed in 2015

Like many OECD economies, Chilean trade contracted significantly at the height of the global crisis. Chilean import growth was above OECD rates pre-crisis, while export growth tracked OECD rates more closely. Chilean import growth initially recovered strongly after the crisis but has since declined; export growth was -1.9% in 2015.



Source: OECD SNA

Gross exports amounted to USD 72 billion in 2016, (33% of GDP), and gross imports to USD 73 billion (33% of GDP). Gross trade figures, however, overstate the ‘real’ contribution of trade to the economy. In value-added terms, exports contributed 28% per cent of total GDP in 2014, below the pre-crisis high of 37% but close to the OECD median (grey diamond). The contribution of direct and indirect imports to domestic final demand measured 27% in 2014.

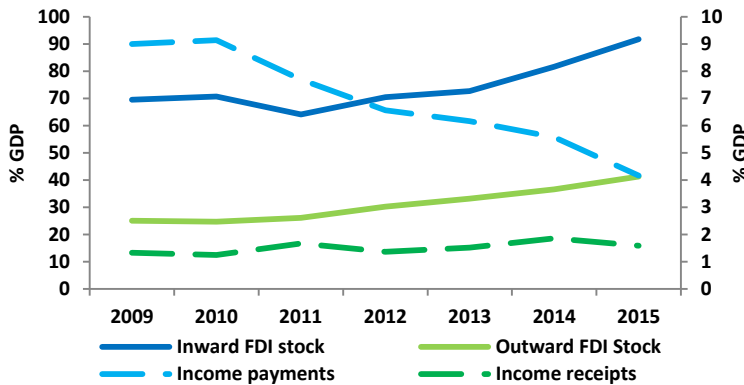


Source: OECD-WTO Trade in Value Added Data

## Investment is more inward than outward

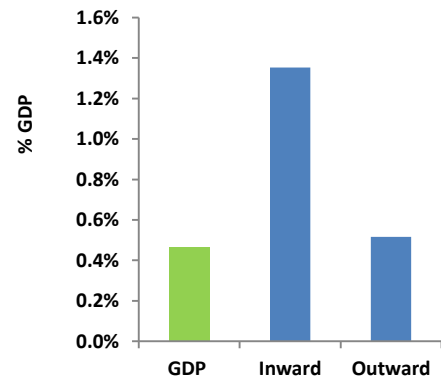
Although both outward and inward FDI stocks have been growing relative to GDP since 2009, FDI remains inward orientated, equivalent to 91% of GDP (Figure 3). In 2015, Chile’s share of the OECD total inward FDI stock (1.4%) was much higher than its share of GDP (0.5%), and its share in outward stock was 0.5% of the OECD total, slightly higher than its share of GDP (Figure 4).

Figure 3. FDI stocks and income as a share of GDP



Source: OECD FDI Statistics (BMD4)

Figure 4. FDI stocks and GDP as a share of OECD total, 2015

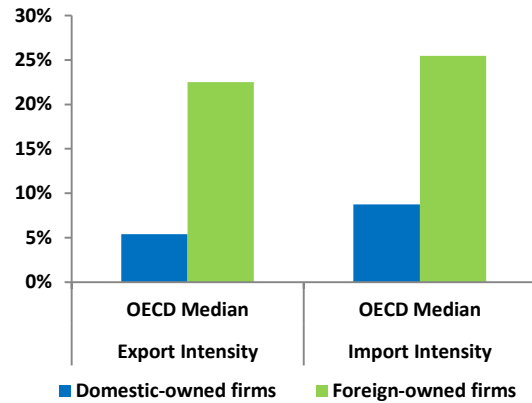


Source: OECD FDI Statistics (BMD4)

### Foreign owned firms are 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. The import intensity of foreign-owned firms (share of imports in purchases) is also typically higher for foreign-owned than domestic firms. The data for foreign-owned firms in Chile are not available.

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

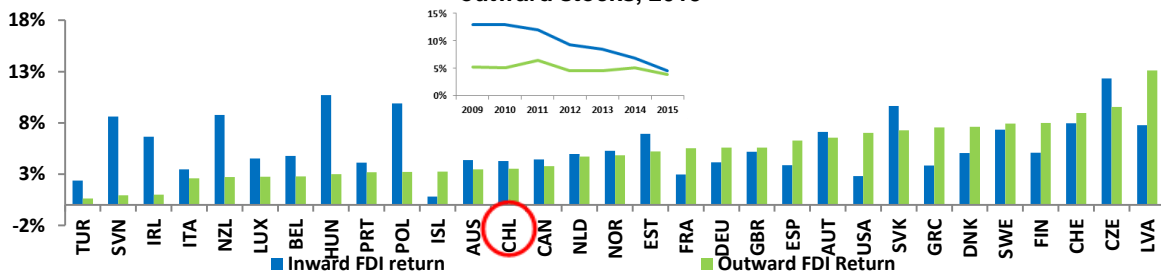


Source: OECD AMNE and Trade by Enterprise Characteristics (TEC) statistics (2011)

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

In 2015, Chile received USD 38 billion in income from its outward investment, equivalent to approximately 1.6% of GDP. Chile's rate of return at 3.5% (green bar) on its outward FDI is below the OECD median, and the return to foreign investors in Chile was 4.3% in 2015, also just below the OECD median. While rates of return on both inward and outward investment have been trending down since 2011, the drop for inward FDI has been much steeper than for outward FDI.

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

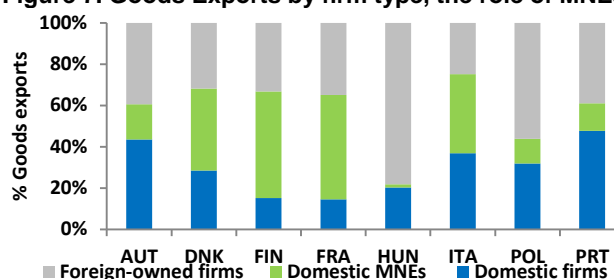


Source: OECD FDI Statistics (BMD4)

### ...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 other it is foreign-owned firms. In each country with available data, at least half of all goods exports are conducted by MNEs. Similar data on foreign-owned firms in Chile are not available.

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

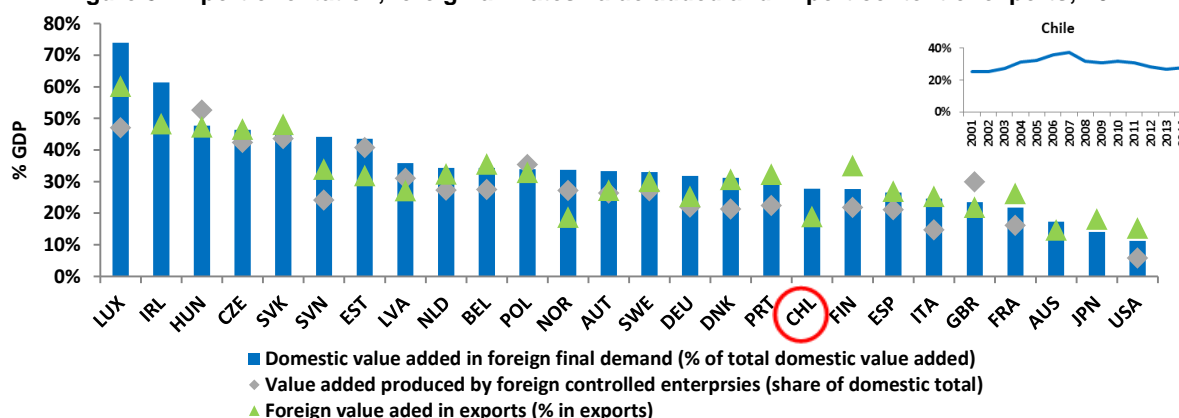


Source: OECD TEC statistics (2011)

### Chile's export orientation is low relative to many similar sized economies

Exports (in value added terms) contribute around 28% of Chilean GDP, this is relatively low compared to other OECD economies but comparable with Finland. Although there is high levels of inward investment, GVC integration as measured by the import content of exports is also low for Chile. However, this is typical for countries where natural resources play an important role in the economy and with such a high mineral content of exports. Furthermore, almost 40% of inward FDI goes to the primary sector in Chile. Export orientation has been in decline since 2007 (see insert chart).

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

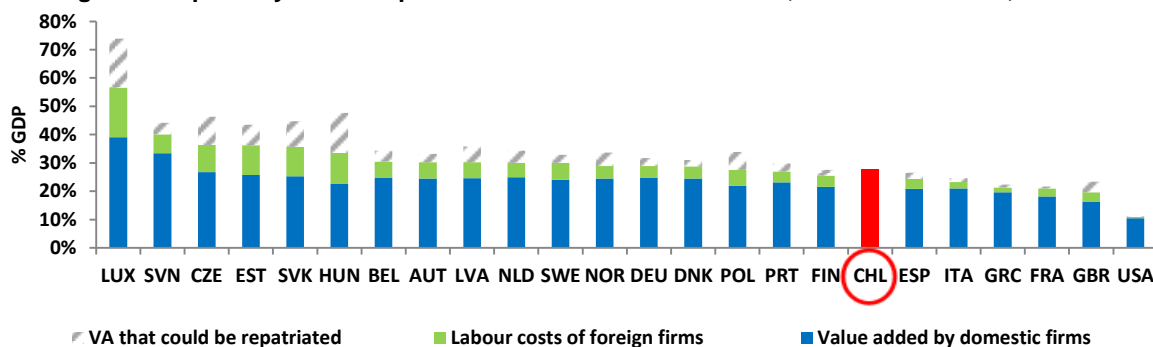


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

### 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 Chile due to data availability.

**Figure 9. Exports by ownership and their contribution to income, as a share of GDP, 2014**

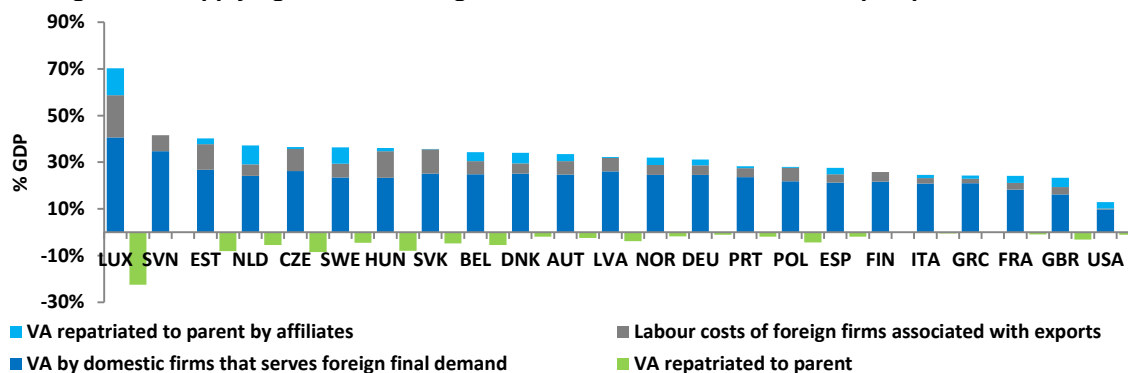


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

**Taking a broader view by including the income of foreign affiliates can provide a more complete picture of the international orientation of the domestic 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 can’t be calculated for Chile due to data availability; however it would likely be lower than the export orientation because Chile is a net inward FDI recipient.

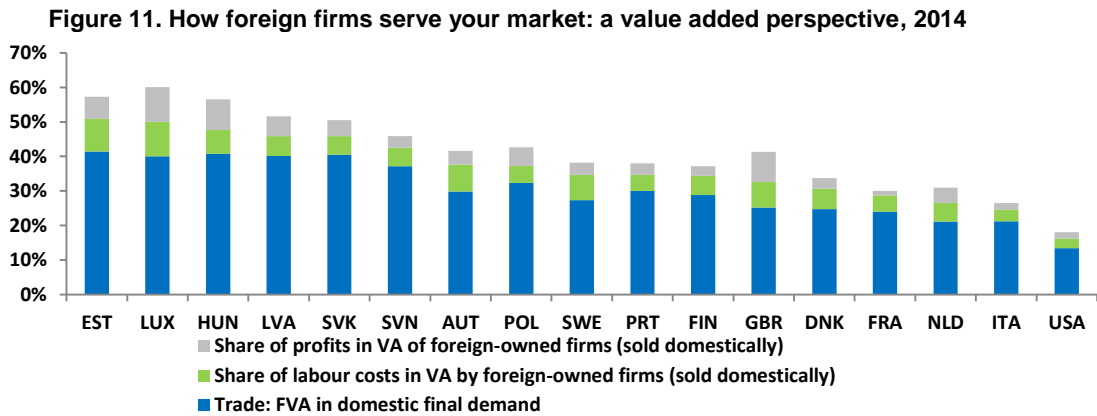
**Figure 10. Supplying markets through trade and investment: a broader perspective, 2014**



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 (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 reproduced for Chile, but it is likely that foreign firms serve the Chilean market more through trade than through investment as in other economies.



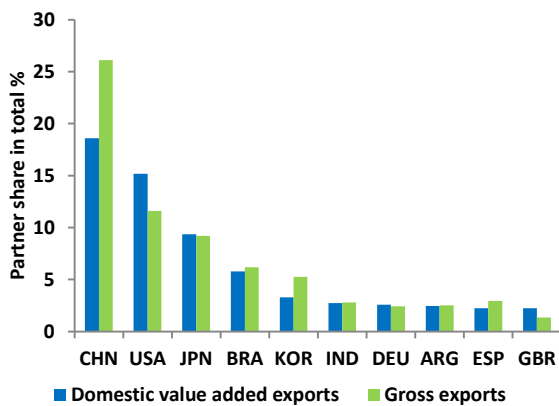
Source: OECD-WTO Trade in Value Added Data, OECD AMNE and OECD TEC statistics

## Trade and investment by partner country

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

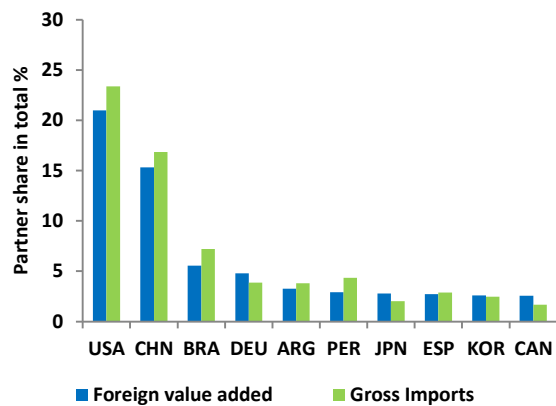
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**Figure 12. Exports: gross and value added terms, by partner country, 2014**



Source: OECD-WTO TiVA data

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

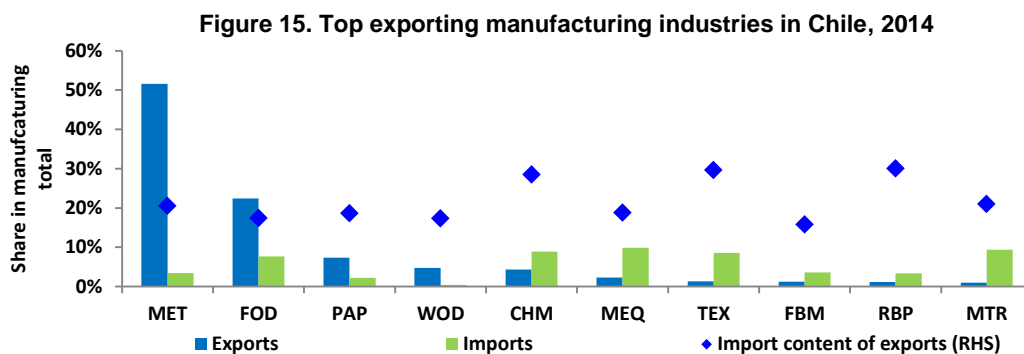


Source: OECD-WTO TiVA data

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

## Trade and investment by industry

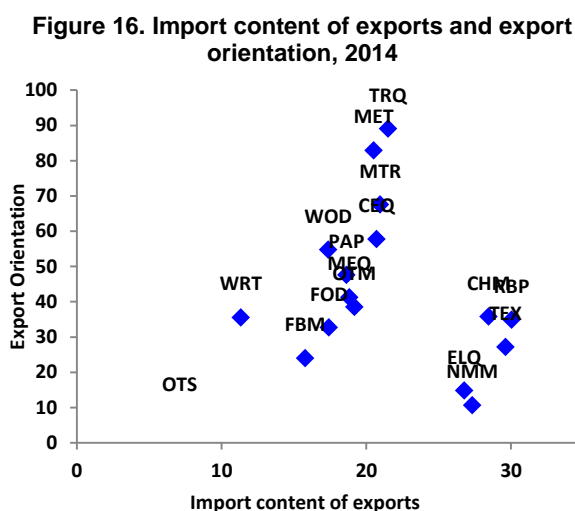
The top manufacturing exporting industries in Chile are basic metals (MET) and food and beverages (FOD). The import content of exports varies across industries—illustrating the role that importing can play in supporting exports and indicating the degree of GVC integration in these industries. On the other hand, a low import content of exports in industries such as MET reflects the mineral or natural resource content of exports.



Source: OECD-WTO Trade in Value Added Data. See page 10 for industry codes.

### Exports and imports can go hand in hand...

Across industries in many OECD countries there is a strong 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. This is less the case for Chile (Figure 16), where export orientation varies substantially across industry but the import content of exports is quite low and fairly homogenous across industries. Figure 17, foreign-owned firms and export orientation, and Figure 18, goods trade by ownership and industry, cannot be produced for Chile due to data limitations.

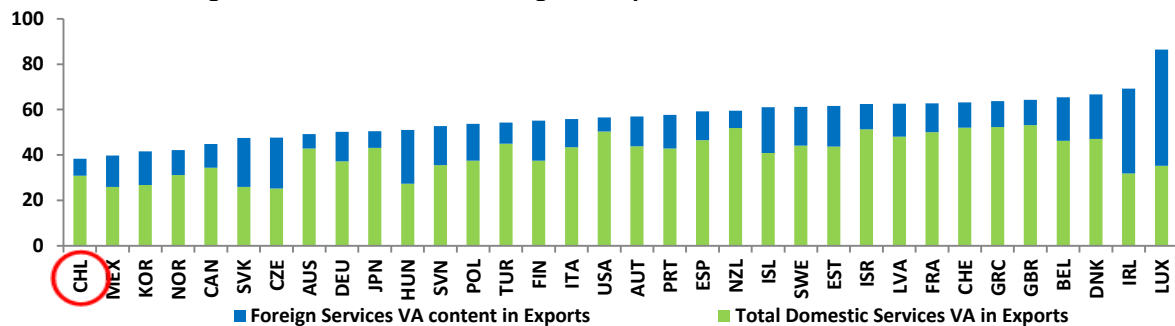


Source: OECD-WTO TiVA data and OECD AMNE statistics

## 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 Chile's total exports of goods and services was 38% in 2014 (Figure 19), the lowest in the OECD, where the median value is 57%. Considering the services content of manufactured goods alone, 22% of manufacturing exports reflects services value added, significantly below the OECD average of 36%.

Figure 19 Services content of gross exports for OECD countries, 2014

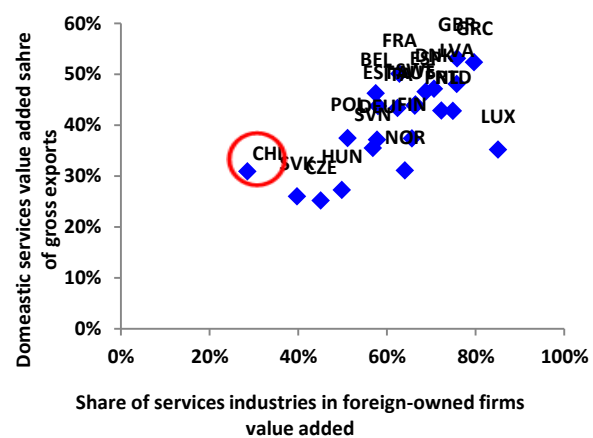


Source: OECD-WTO TiVA data

## ...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 Chile, 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  
 \* For Chile, the share of inward FDI in services in total inward FDI is used as value added data are not available.



## Links and data sources

### Guide to the trade and investment statistical notes

[www.oecd.org/investment/Guide-trade-investment-statistical-country-notes.pdf](http://www.oecd.org/investment/Guide-trade-investment-statistical-country-notes.pdf)

### Activity of Multinational Enterprises - AMNE [www.oecd.org/sti/ind/amne.htm](http://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](http://www.oecd.org/investment/fdibenchmarkdefinition.htm)

### Foreign Direct Investment (FDI) Statistics [www.oecd.org/investment/statistics.htm](http://www.oecd.org/investment/statistics.htm)

### Trade by Enterprise Characteristics - TEC

[www.oecd.org/std/its/trade-by-enterprise-characteristics.htm](http://www.oecd.org/std/its/trade-by-enterprise-characteristics.htm)

### Trade in Value Added - TiVA

[www.oecd.org/sti/ind/measuringtradeinvalue-addedanoecd-wtojointinitiative.htm](http://www.oecd.org/sti/ind/measuringtradeinvalue-addedanoecd-wtojointinitiative.htm)

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## Annex: Further data requirements

To make this note as informative as those of other OECD countries, more detailed data about Chile 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. Data not only trade by domestic or foreign –owned firms, but information on the domestic enterprises; whether they are domestic MNEs or domestic non-MNEs can further the analysis.

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## Table of industry codes

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