

# International trade, foreign direct investment and global value chains



2017

## ISRAEL

### 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 (27% in 2014) of economic activity (GDP) in Israel depends on foreign markets, around the same as in Finland and Portugal, but below the OECD median, and Israel's export orientation has fallen in recent years. However, direct investment has grown relative to GDP since 2008; in 2015, direct investment in Israel was equivalent to 36% of GDP, slightly higher than the share of outward FDI.

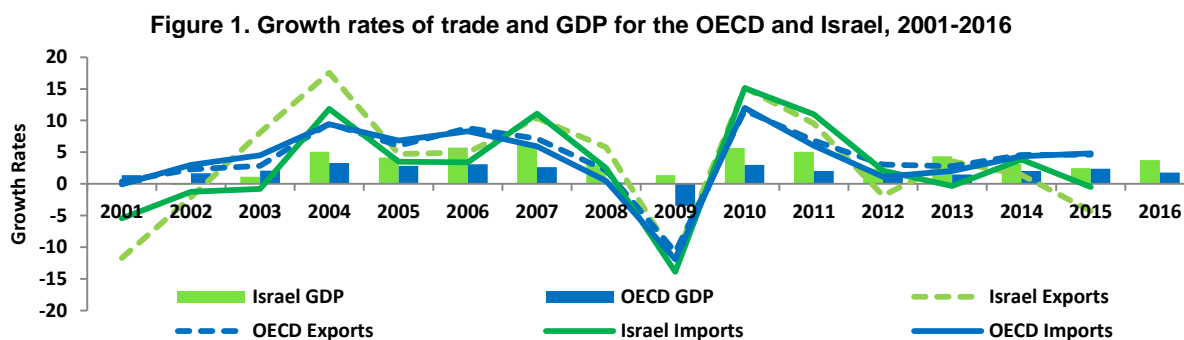
Gross bilateral trade figures can disguise the true nature of trade interdependencies, particularly between final consumers in one country and producers at upstream parts of the value chain. The United States is the top destination for Israeli exports using both gross and value added measures, but value added data indicates that the German market is more important than Russia, which is not apparent using gross data. On the import side, the United States is also the top supplier of Israeli demand and value added data illustrate that Russia is relatively more important than Switzerland and Turkey contrary to gross data.

The top manufacturing exporting industries in Israel are chemicals and chemical products (CHM), manufacturing (OTM) and computers and computer and electronic products (CEQ). Relative to other Israeli industries, these industries have both high export orientation and import content of exports, illustrating how exports and imports can go hand in hand. Israel has a relatively high service content in its exports at 62% despite a comparatively small share of direct investment goes to the services sector.

# Trade and investment in Israel

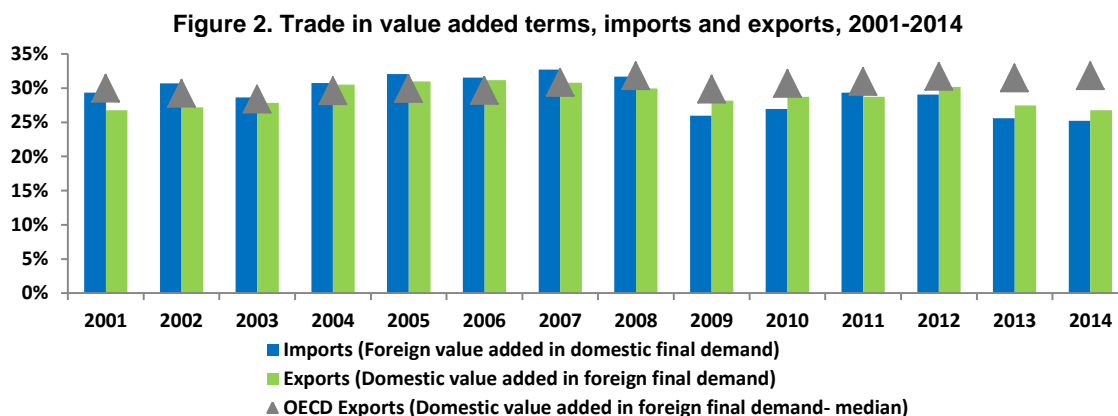
## Growth in trade had recovered since the global and euro crises but slowed in 2015

Like many OECD economies, Israeli trade contracted significantly at the height of the global crisis and again during the euro crisis. Growth in Israeli trade followed a similar path to the OECD rates in the pre-crisis years, but they have fluctuated more since the crisis and growth in Israeli exports and imports were negative in 2015.



Source: OECD SNA

Gross exports amounted to USD 92 billion in 2016 (34% of GDP), and gross imports to USD 83 billion (31% of GDP). Gross trade figures, however, overstate the ‘real’ contribution of trade to the economy. In value-added terms, exports contributed 27% of total GDP in 2014, closer to values in the early 2000s rather than recent levels and below the OECD median (grey diamond). The contribution of direct and indirect imports to domestic final demand measured 25% in 2014.

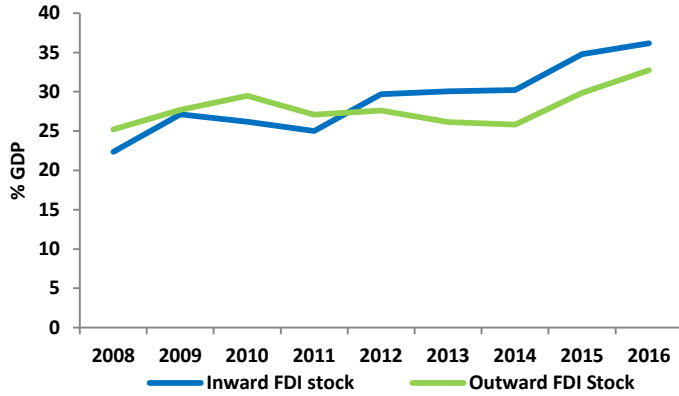


Source: OECD-WTO Trade in Value Added Data

## Investment is more inward than outward

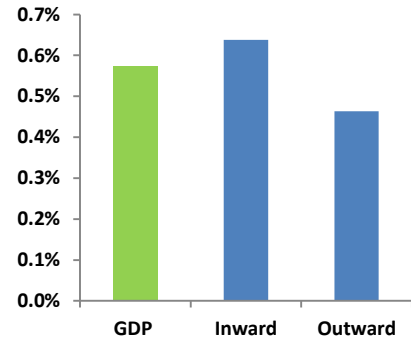
Although both outward and inward FDI stocks have been growing relative to GDP since 2008, inward FDI stocks have been growing faster so that FDI is inward orientated (Figure 3). In 2015, Israel’s share of the OECD total inward FDI stock (0.64%) was slightly higher its share of GDP (0.57%), but its share in outward stock was 0.46% of the OECD total, lower than its share of GDP (Figure 4).

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



Source: OECD FDI Statistics (BMD4)

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



Source: OECD FDI Statistics (BMD4)

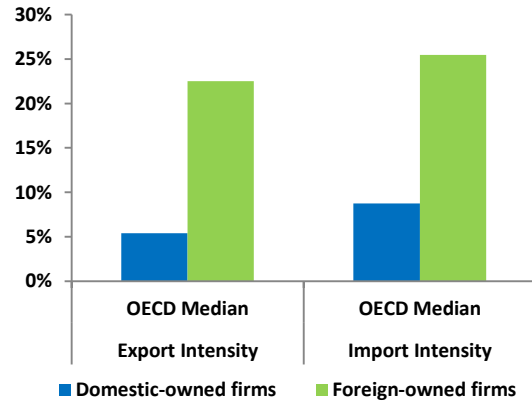
**Foreign-owned firms directly sustained 8% of jobs in the private sector in 2013....**

Reflecting the relatively small size of inward investment compared to other OECD economies, foreign-owned enterprises accounted for 8% of jobs in the private sector in 2013.

**...and 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.

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

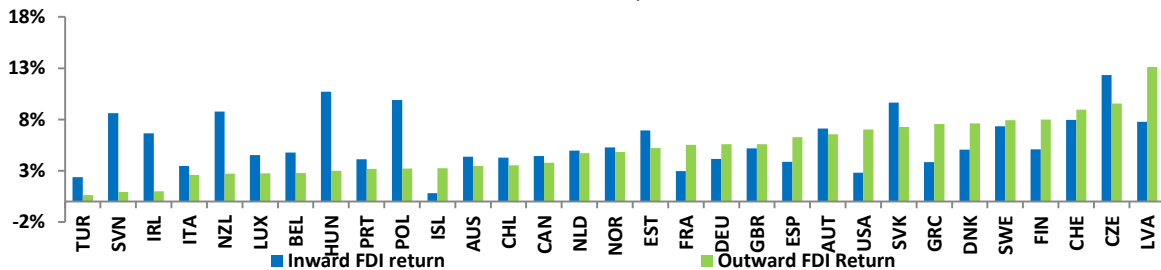


Source: OECD AMNE and Trade by Enterprise Characteristics (TEC) statistics (2011)

**Domestic MNEs provide important channels to penetrate foreign markets...**

In 2015, the OECD median rate of return on outward FDI was 4% and the return to investors in OECD countries was 4.7%. The payments by affiliates can be an important source of revenue for countries, especially those with many domestic MNEs. These data are not available for Israel.

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

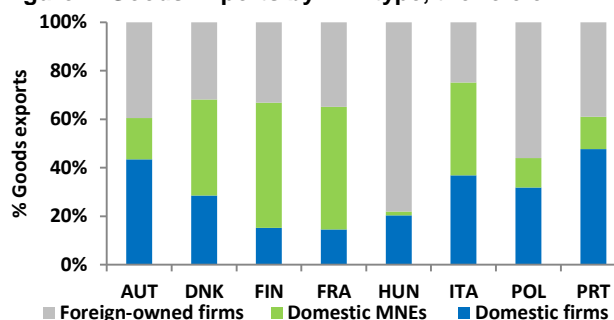


Source: OECD FDI Statistics (BMD4)

### ...and 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.

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

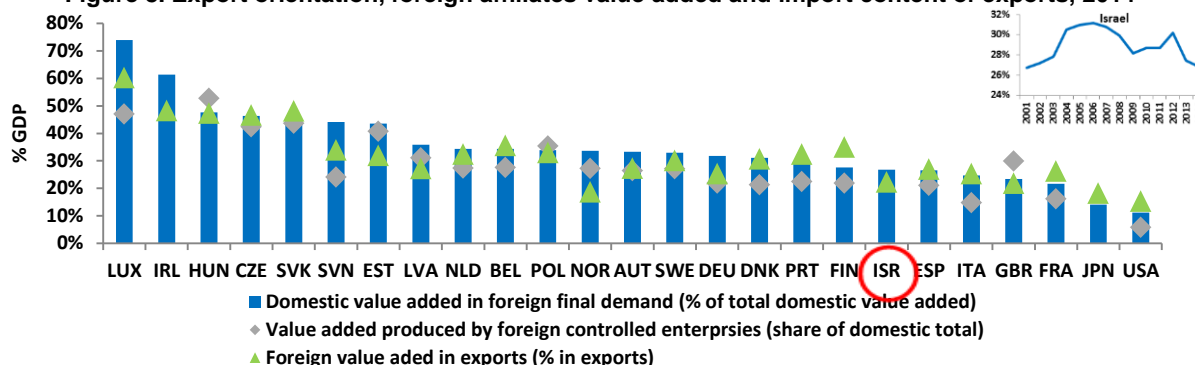


Source: OECD TEC statistics (2011)

### But Israel's export orientation is low relative to many similarly sized economies

Exports (in value added terms) contribute around 27% of Israeli GDP, this is relatively low compared to other OECD economies, but comparable with Finland and Portugal. This may in part reflect relatively low levels of inward investment, which contributes to their comparatively low level of GVC integration as measured by the import content of exports. Export orientation has fallen in recent years (see insert chart).

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

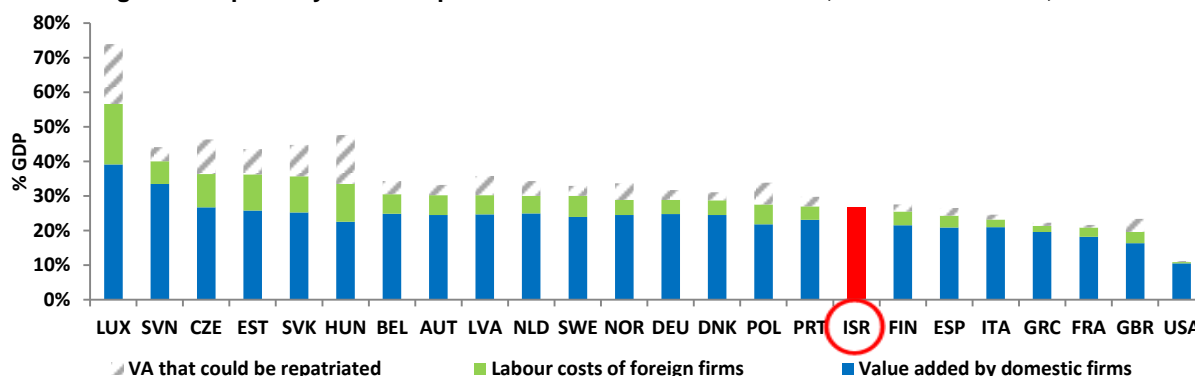


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

### 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 Israel due to data availability.

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

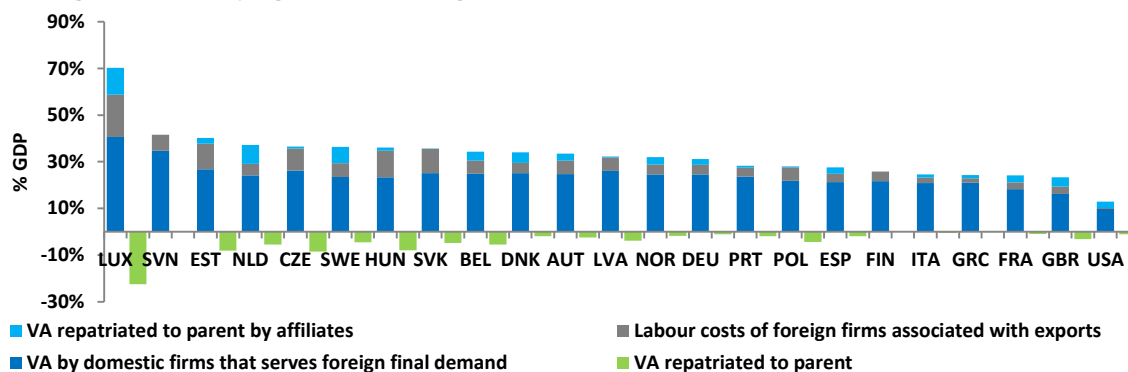


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

### Taking a broader view by including the income of foreign affiliates can provide a more complete picture of the international orientation of the Israeli 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 Israel due to data availability.

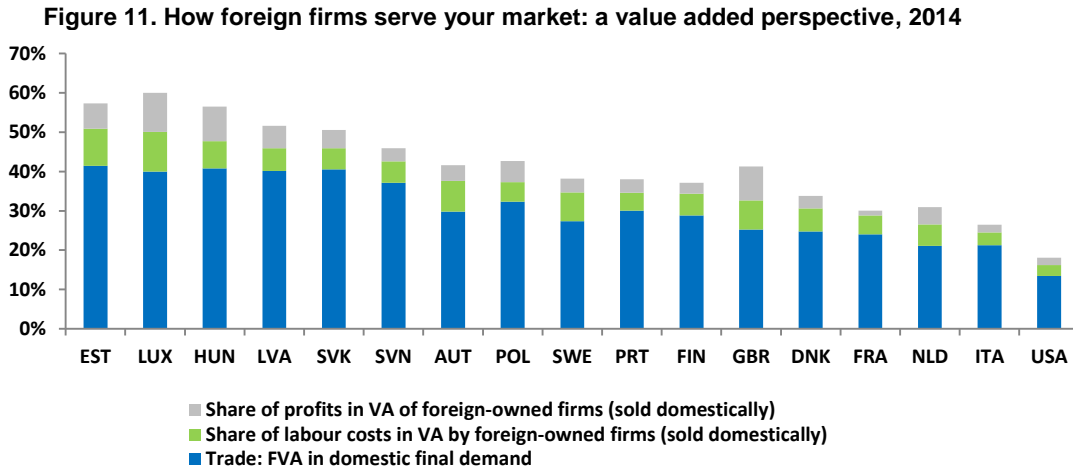
Figure 10. Supplying markets through trade and investment: a broader perspective, 2014



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 Israel, but it is likely that foreign firms serve the Israeli market more through trade than through investment as in other economies.



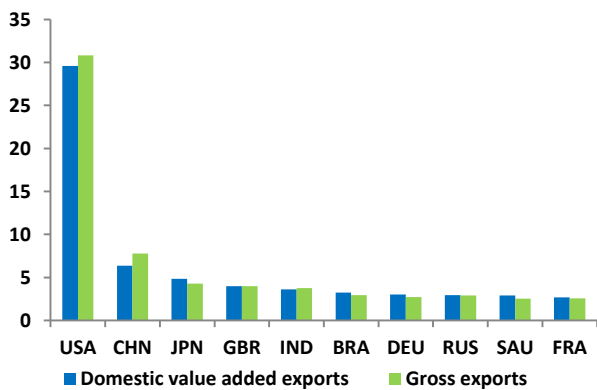
Source: OECD-WTO Trade in Value Added Data, OECD AMNE and OECD TEC statistics

## Trade and investment by partner country

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

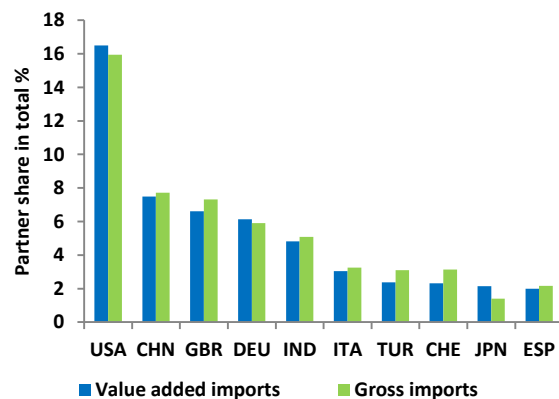
Gross bilateral trade figures can disguise the true nature of trade interdependencies, particularly between final consumers in one country and producers at upstream parts of the value chain. The United States are the top destination for Israeli exports using both gross and value added measures, but value added data indicate that the German market is more important than Russia for exports, which is not apparent using gross data. On the import side, the United States is the top supplier of Israeli demand while Italy is relatively more important than Switzerland and Turkey—contrary to what gross data indicate.

**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**

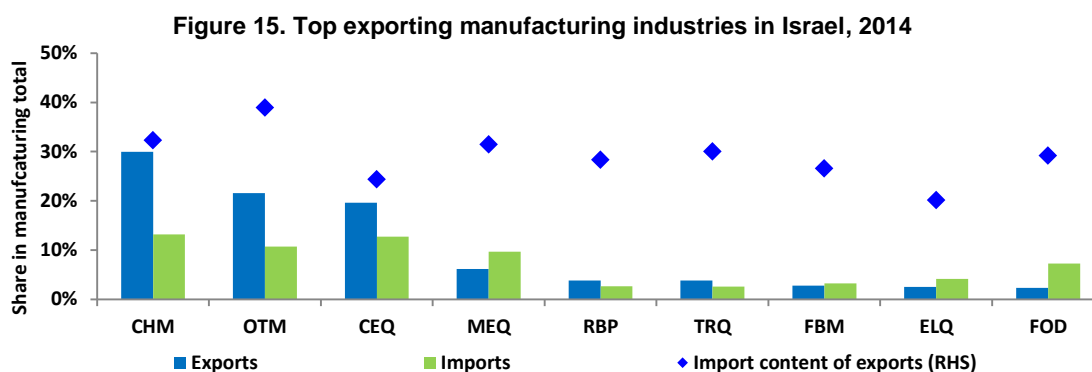


Source: OECD-WTO TiVA Data

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

## Trade and investment by industry

The top manufacturing exporting industries in Israel are chemicals and chemical products (CHM), manufacturing (OTM) and computers and computer and electronic products (CEQ). The import content of exports is relatively high across these industries—illustrating the role that importing plays in supporting exports and indicating the degree of GVC integration in these industries.

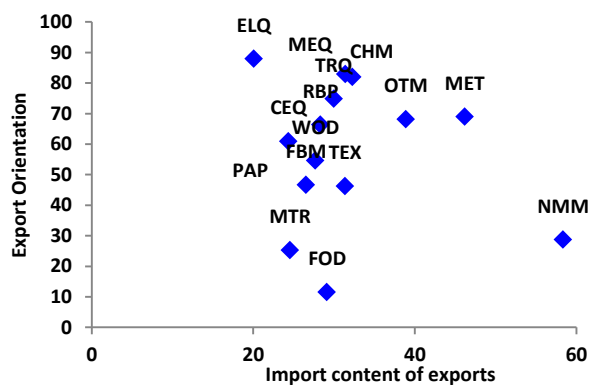


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics. See page 10 for a description of industry codes.

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

Across many OECD countries and industries there is a strong 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 mainly true for Israel with NMM—other non-metallic mineral products—being an exception (Figure 16). Figure 17, foreign investment and export orientation, and figure 18, goods trade by ownership and industry, cannot be produced for Israel due to data limitations.

**Figure 16. Import content of exports and export orientation, 2014**

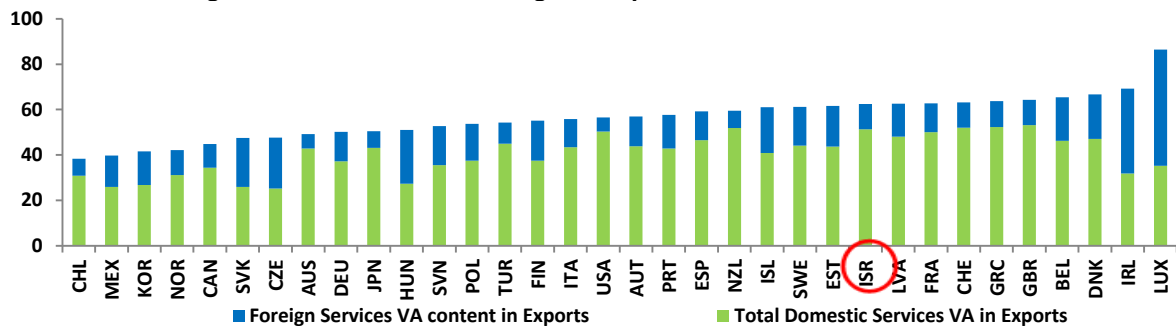


Source: OECD-WTO TiVA Data and OECD AMNE statistics

## 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 Israel's total exports of goods and services was 62% in 2014 (Figure 19), above the OECD median of 57%. Considering the services content of manufactured goods alone, 39% of manufacturing exports reflects services value added, slightly above the OECD average of 36%.

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

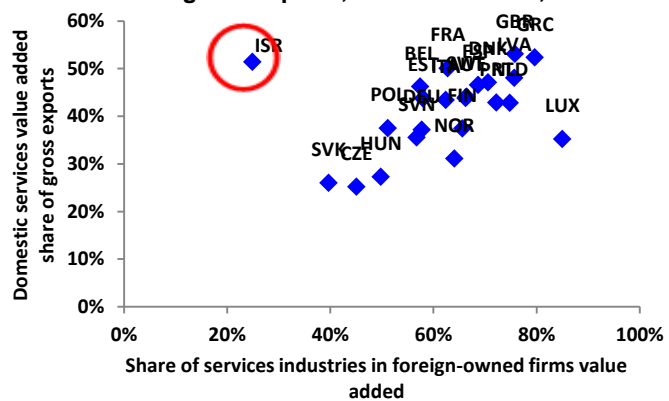


Source: OECD-WTO TiVA Data

## ...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. However, Israel is an exception with a relatively high services content in exports despite a share of investment in services at the low end for OECD economies.

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  
 Note. For Israel, the share of inward FDI in services of 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)

## Annex: Further data requirements

To make this note as informative as those of other OECD countries, more detailed data about Israel 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 greatly benefit the analysis, facilitating the calculation of the export intensities of domestic and foreign firms so that Figures 5, 7, 14 and 18 could be produced.

**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		