

International trade, foreign direct investment and global value chains



2017

TURKEY

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.

Almost one-fifth (19% in 2014) of economic activity (GDP) in Turkey depends on foreign markets, towards the lower end of OECD economies, and its import content of exports an indicator of GVC integration, is also comparatively low at 22%. These features are likely related to the low inward investment in Turkey. Although Turkey's inward investment (equivalent to 17% of GDP in 2015) is much larger than its outward investment (equivalent to 4% of GDP), its share in OECD total FDI inward stocks is about half its share in 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. For example, France moves ahead of Italy as a destination for Turkish exports once value added data are used. On the import side, the United States jumps ahead of Russia and India as a more important supplier of value added to the Turkish market.

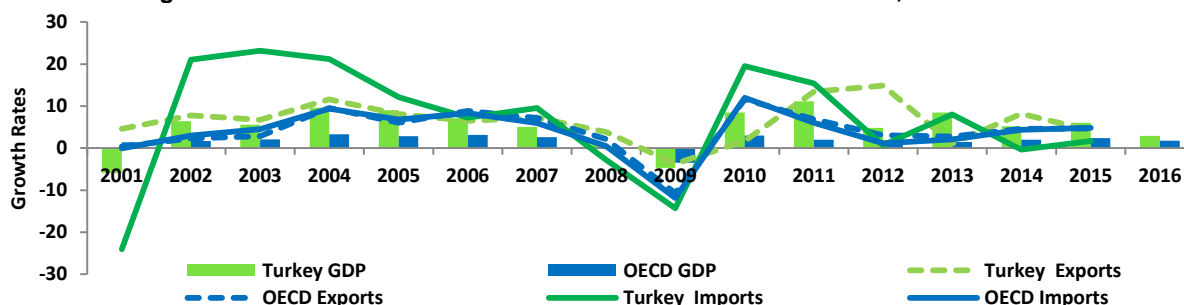
The top manufacturing exporting industries in Turkey are textiles (TEX) and motor vehicles (MTR). The import content of exports varies across these two industries; illustrating both the role that importing can play in supporting exports and the different degrees of GVC integration in these industries. Typically the higher the import content of exports the greater the GVC integration; textiles has a relatively low import content at 19% while 40% of exports by the motor industry represent imports. The services content of Turkish exports 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 Turkey

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

Like many OECD economies, Turkish trade contracted significantly at the height of the global crisis. Turkish import growth recovered faster than export growth following the crisis, and Turkish import growth was above the OECD rate for most years until 2014. The Turkish export growth tracked the OECD rate more closely until the post crisis period, when Turkish export growth was often stronger than the OECD rate. In 2015, export growth fell to 4% while import growth returned positive to 2%.

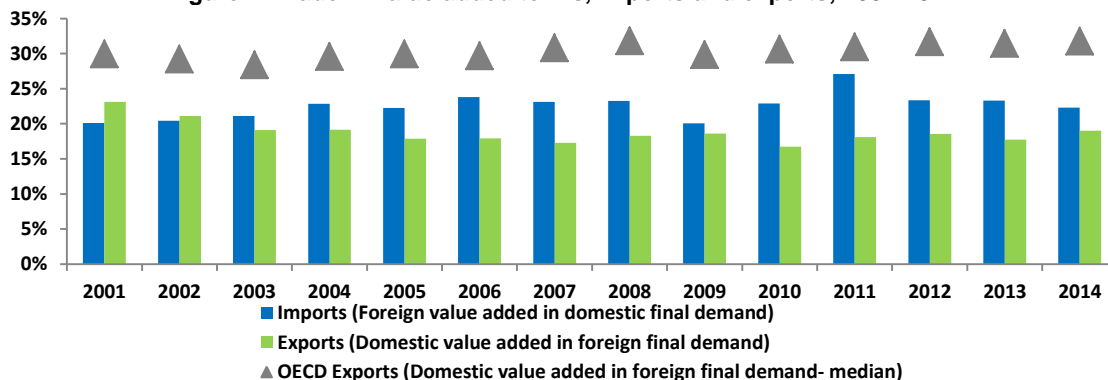
Figure 1. Growth rates of trade and GDP for the OECD and Turkish, 2001-2016



Source: OECD SNA

Gross exports amounted to USD 201 billion in 2016 (26% of GDP), and gross imports to USD 223 billion (29% of GDP). Gross trade figures, however, overstate the 'real' contribution of trade to the economy. In value added terms, exports contributed 19% of total GDP in 2014, close to the 2001 high but below the OECD median (grey diamond). The contribution of direct and indirect imports to domestic final demand measured 22% in 2014.

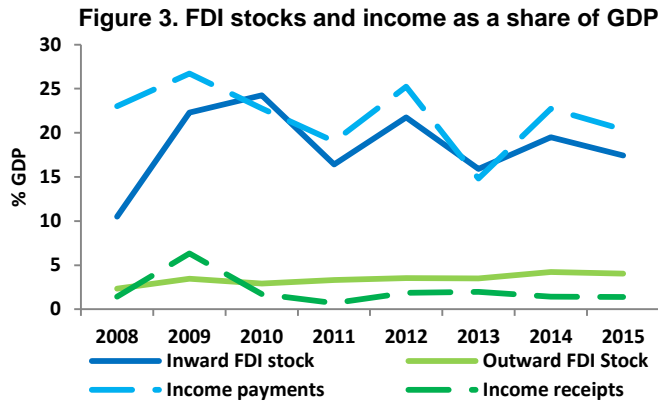
Figure 2. Trade in value added terms, imports and exports, 2001-2014



Source: OECD-WTO Trade in Value Added Data

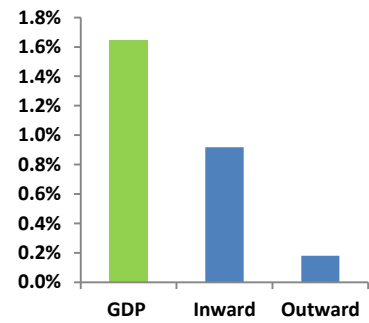
Investment is more outward than inward

Relative to GDP, the inward FDI stock has fluctuated in Turkey since 2008 and was equivalent to 17% of GDP in 2015. Outward FDI was much smaller and equivalent to 4% in 2015 (Figure 3). In 2015, Turkey's share of the OECD total inward FDI stock (0.9%) was about half its share of GDP (1.6%), and its share in outward stock was 0.2% of the OECD total, a fraction of its share of GDP (Figure 4).



Source: OECD FDI Statistics (BMD4)

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

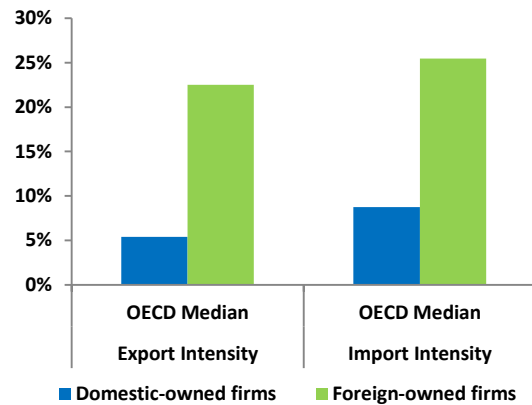


Source: OECD FDI Statistics (BMD4)

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. These intensities cannot be produced for Turkey due to data availability.

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

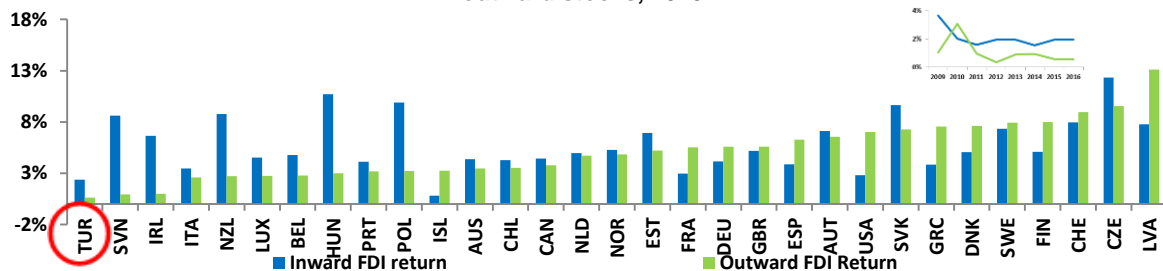


Domestic MNEs provide important channels to penetrate foreign markets via affiliates...

In 2015, Turkey received USD 223 million in income from its outward investment, equivalent to approximately 0.02% of GDP. Turkey's rate of return at 0.6% (green bar) on its outward FDI is slightly lower than previous years (see chart insert). On the other hand, the return to foreign investors in Turkey was 2.4% in 2015, also at the lower end of OECD countries.

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

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

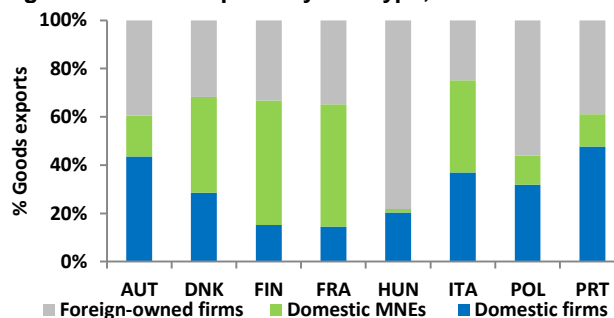


Source: OECD FDI Statistics (BMD4)

...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 others 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

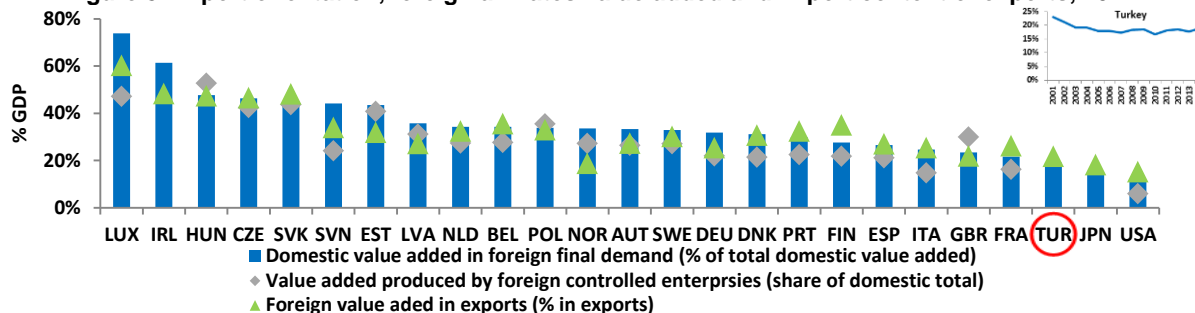


Source: OECD TEC statistics (2011)

But Turkey's export orientation is low relative to other OECD countries

Exports (in value added terms) contribute around 19% of Turkish GDP. This is relatively low compared to other OECD economies and may, in part, reflect low levels of inward investment, which could contribute to their comparatively low GVC integration as measured by the import content of exports (green triangle). Export orientation has increased slightly in recent years (see insert chart).

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



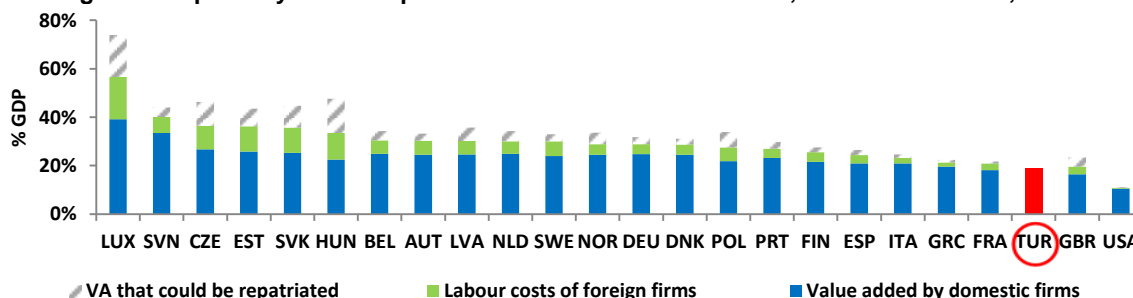
Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

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 Turkey due to data availability.

Taking a broader view by including the income of foreign affiliates can provide a more

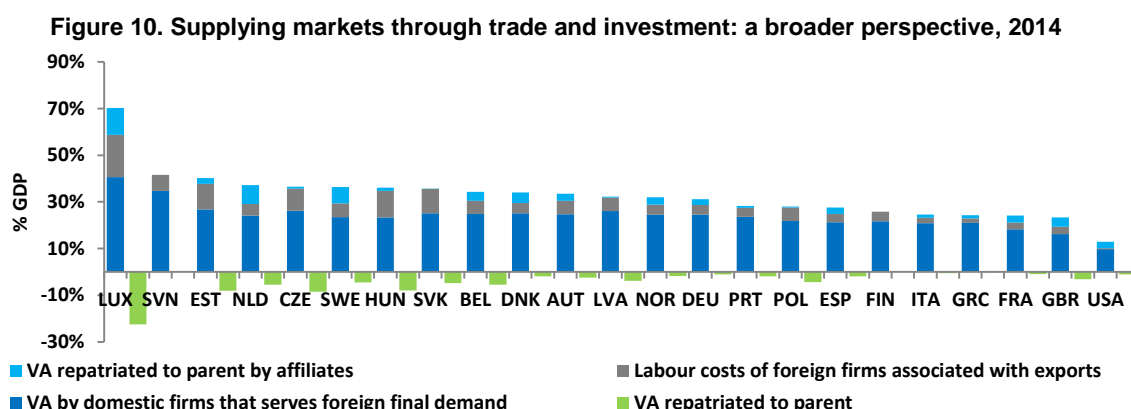
Figure 9. Exports by ownership and their contribution to income, as a share of GDP, 2014



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

complete picture of the international orientation of the domestic economy

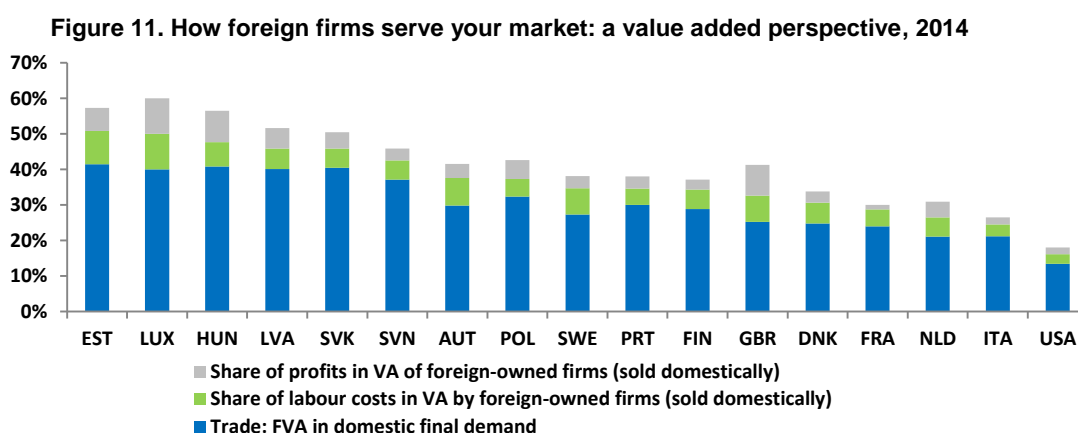
Firms serve foreign markets by exporting or by selling through their foreign affiliates. Figure 10 takes a broader view of an economy's international orientation by taking account of both trade and investment. The chart begins with the domestic value added in exports that remains in the economy – exports 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 cannot be calculated for Turkey due to data availability; however, it would likely be lower because Turkey is a net recipient of direct investment.



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 Turkey, but it is likely that foreign firms serve the Turkish 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. For example, France moves ahead of Italy as a destination for Turkish exports once value added data are used. On the import side, the United States jumps ahead of Russia and India as a more important supplier of value added to the Turkish market.

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

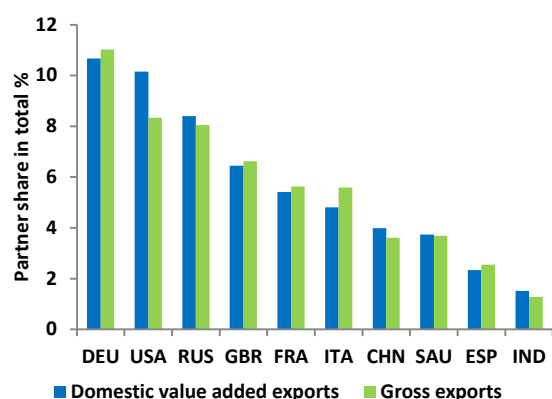
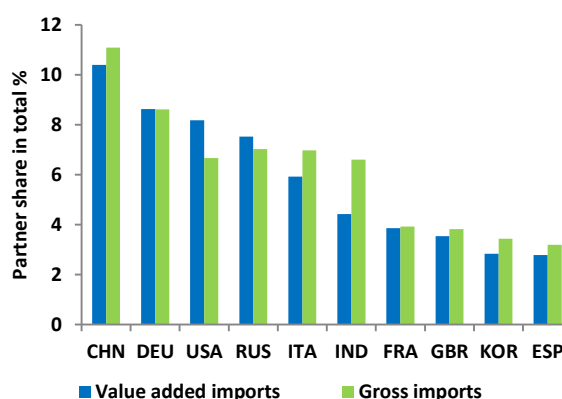


Figure 13. Imports: gross and value added terms, by partner country, 2014



Source: OECD-WTO TiVA Data

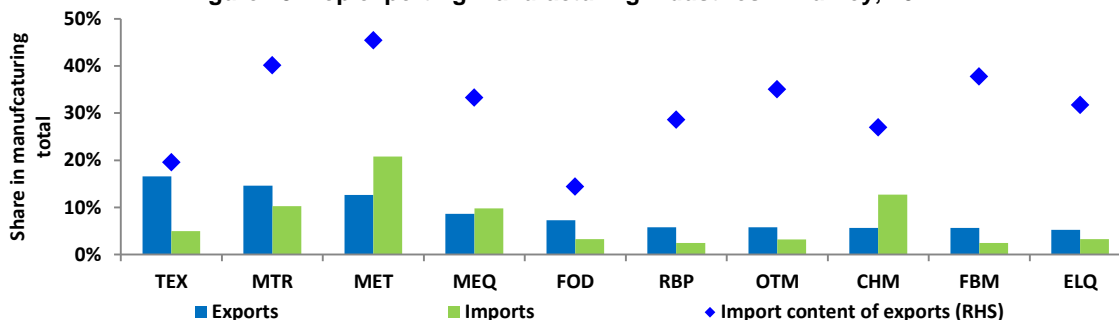
Source: OECD-WTO TiVA Data

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

Trade and investment by industry

The top manufacturing exporting industries in Turkey are textiles (TEX) and motor vehicles (MTR). The import content of exports varies across these two industries, illustrating both the role that importing can play in supporting exports and the different degrees of GVC integration in these industries.

Figure 15. Top exporting manufacturing industries in Turkey, 2014

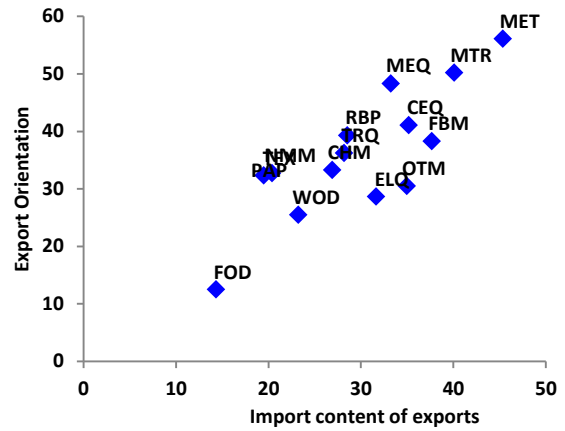


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics. See page 10 for a description of industry codes.

Exports and imports go hand in hand...

Across most industries 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. Figure 17, foreign investment and export orientation, and figure 18, goods trade by ownership and industry, cannot be produced for Turkey due to data limitations.

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

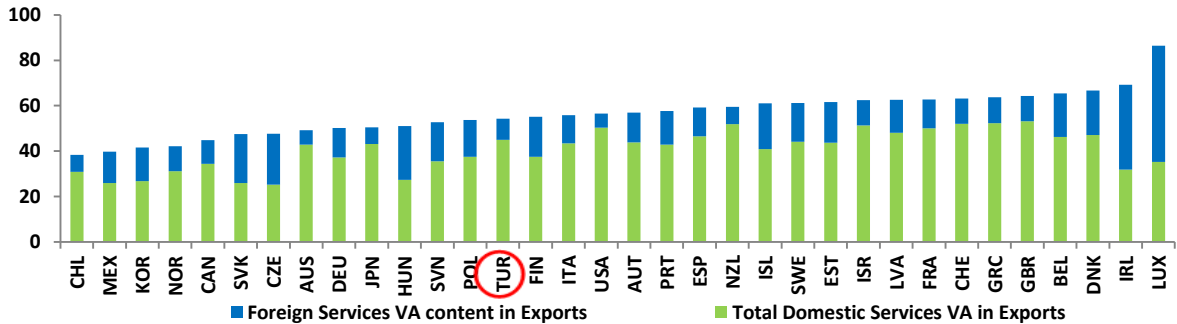


Source: OECD-WTO TiVA Data and OECD AMNE statistics

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 Turkey's total exports of goods and services was 55% in 2014 (Figure 19), below the OECD median of 57%. Considering the services content of manufactured goods alone, 38% of manufacturing exports reflects services value added, above the OECD average of 36%.

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

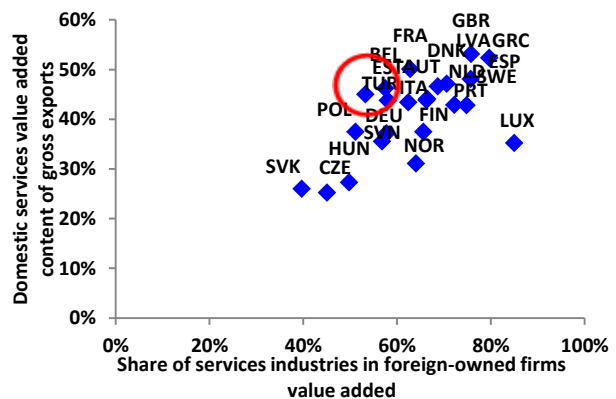


Source: OECD-WTO TiVA Data

...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. For Turkey, the share of investment in services is below the OECD median, 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 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 Turkey 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, 15, 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
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	