International trade, foreign direct investment and global value chains

2017

POLAND

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.

Over one-third (34% in 2014) of economic activity (GDP) in Poland depends on foreign markets, around the same as in Austria and Belgium. Foreign-owned firms play a significant role in driving exports, accounting for 56% of Poland's gross exports of goods. Poland's inward investment (equivalent to 40% of GDP in 2015) was eight times the size of its outward investment (5%). Under a broader notion of international orientation that captures the impact on national income of exports and sales through foreign affiliates, shows that Poland's international orientation was equivalent to 28% of GDP in 2014.

Considering both trade and investment through this broader perspective can also shed new light on Poland's most important partner countries. For example, while most partner countries supply Polish consumers mainly through trade, French firms do so almost evenly through trade and sales by foreign affiliates. Furthermore, considering both trade and investment, France moves ahead of both the United Kingdom and Italy in relative importance because of its more extensive investment links with Poland.

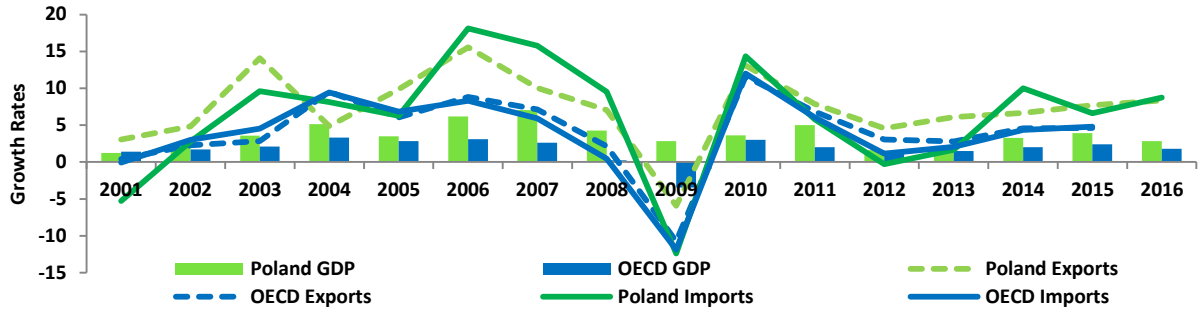
The top manufacturing exporting industries in Poland are motor vehicles (MTR) and food and beverages (FOD). In the former, inward investment plays an important role in GVC integration, with foreign owned firms accounting for 90% of total exports in value-added terms. Poland has a comparatively low service content in its exports at 53%, and this is correlated with a relatively low share of its inward investment going to the services sector.

Trade and investment in Poland

Growth in trade has recovered since the global and euro crises

Like many OECD economies, Polish trade contracted significantly at the height of the global crisis and to a lesser extent during the euro crisis. Polish trade growth was faster than the OECD average in the pre-crisis years and continued this pattern of strong growth since the crisis. In 2016, export growth was 8%, substantially above the OECD rate.

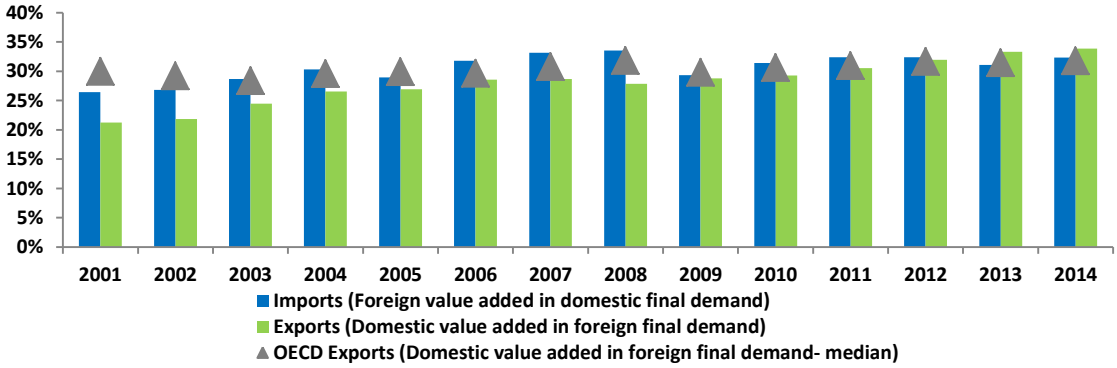
Figure 1. Growth rates of trade and GDP for the OECD and Poland, 2001-2016



Source: OECD SNA

Gross exports amounted to USD 244 billion in 2016 (58% of GDP), and gross imports to USD 227 billion (54% of GDP). Gross trade figures, however, overstate the 'real' contribution of trade to the economy. In value-added terms, exports contributed 34% of total GDP in 2014, the highest recorded and above the OECD median (grey diamond). The contribution of direct and indirect imports to domestic final demand measured 32% of GDP in 2014.

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

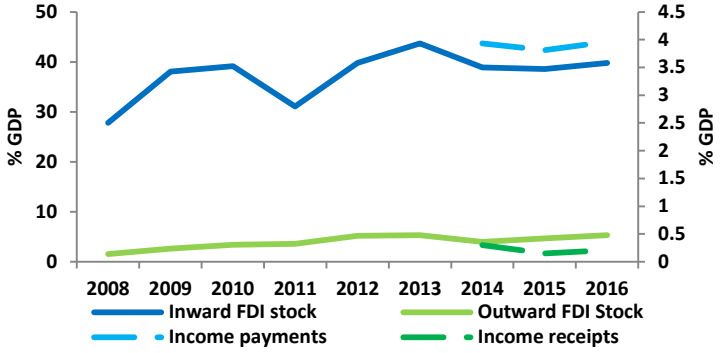


Source: OECD-WTO Trade in Value Added Data

Investment is more inward than outward

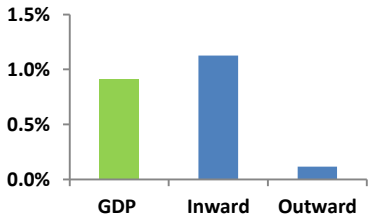
Inward investment in Poland has been growing relative to GDP since 2008 and was equivalent to 40% of GDP in 2016, while outward FDI is much smaller, equivalent to 5% of GDP (Figure 3). In 2015, Poland's share of the OECD total inward FDI stock (1.1%) was slightly above the share of GDP (0.9%), but its share in outward stock was 0.1% of the OECD total, much lower 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)

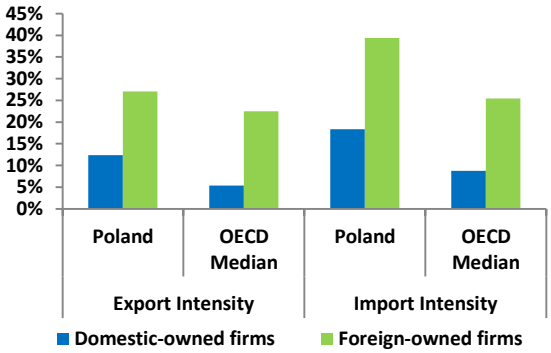
Foreign-owned firms directly sustained 26% of jobs in the private sector in 2013….

Reflecting the large size of inward investment compared to other OECD economies, foreign-owned enterprises accounted for 26% of jobs in the private sector in 2013 and 35% of private sector value added produced in Poland, excluding the agriculture and finance sectors.

…and are more export intensive than domestically owned firms

On average, foreign-owned firms in Poland are twice as export intensive (share of exports in turnover) as domestically owned firms, and their export intensity is higher than the OECD median. The import intensity of foreign-owned firms (share of imports in purchases) is also significantly higher for foreign-owned than domestic firms and above the OECD median.

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

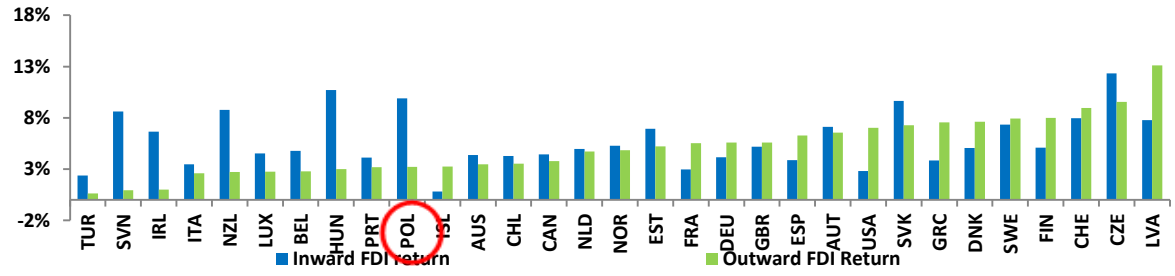


Source: OECD AMNE and Trade by Enterprise Characteristics (TEC) statistics (2011)

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

In 2015, Poland received USD 719 million in income from its outward investment, equivalent to approximately 0.2% of GDP. Poland's rate of return at 3.2% (green bar) on its outward FDI is below the OECD median. On the other hand, the return to foreign investors in Poland was 9.9% in 2015, one of the highest returns from OECD countries.

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

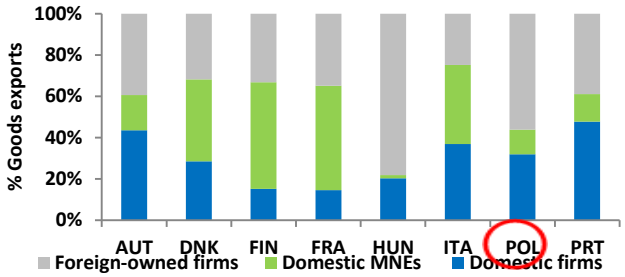


Source: OECD FDI Statistics (BMD4)

…and via exports

Reflecting high levels of inward investment, over half of Polish goods exports are by foreign-owned firms. Unlike in some other European economies, Polish parent MNEs play only a slight role in exports and GVC integration.

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

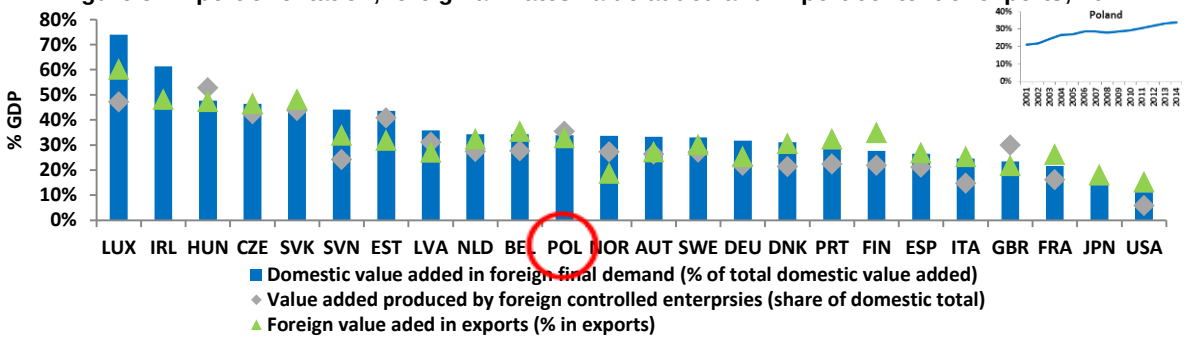


Source: OECD TEC statistics (2011)

Poland's export orientation is close to the OECD median

Exports (in value added terms) contribute around 34% of Polish GDP; this is close to the OECD median and comparable with Austria and Belgium. This may in part reflect high levels of inward investment and their relatively high export intensity (compared to foreign affiliates operating in other countries), contributing to high GVC integration as measured by the import content of exports (green diamond). Export orientation has increased strongly since the crisis (see insert chart).

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

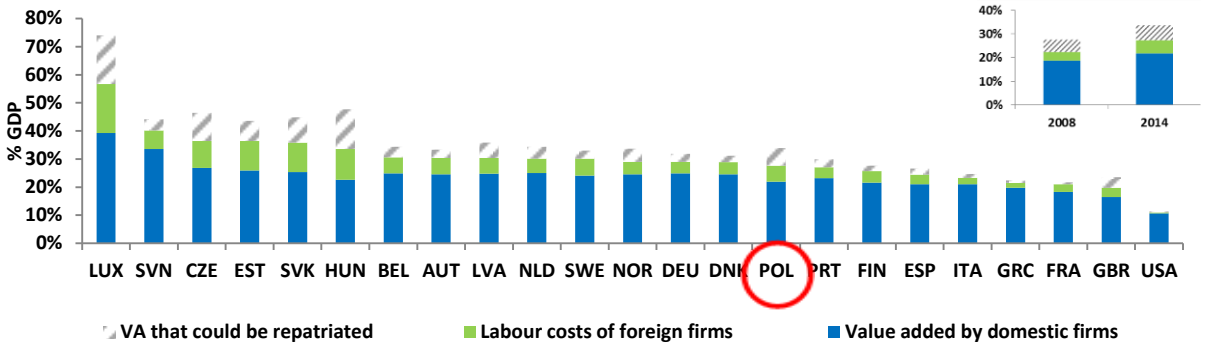


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

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. Excluding these profits Polish exports contain 28% of value-added that remains in the economy. So, 18% of Poland's exported domestic value added represents profits earned and 17% represents wages paid by foreign-owned firms reflecting high levels of inward investment. The share of value added that remains in the economy has increased since 2008 (see insert chart).

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

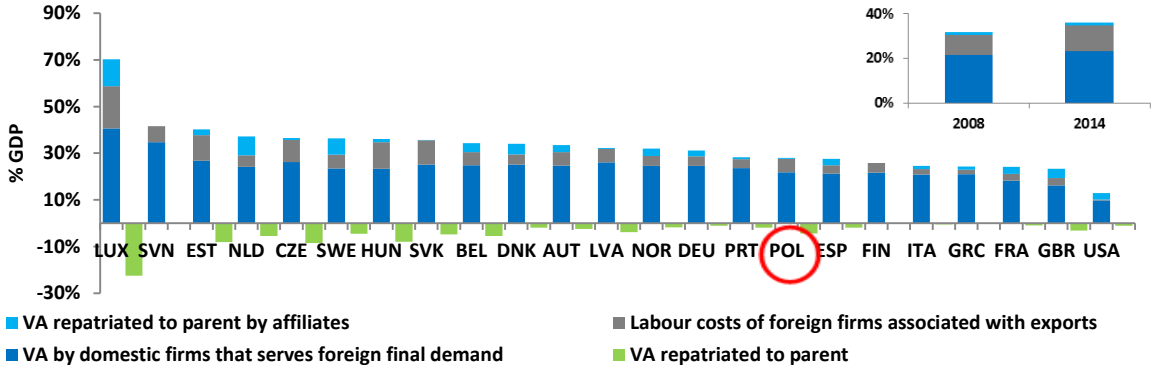


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

Taking a broader view by including the income of foreign affiliates can provide a more complete picture of the international orientation of the Polish 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). For Poland this broader measure (28%) is lower than the export orientation measure from TiVA (34%) because Poland is a net recipient of inward direct investment. Poland moves below the OECD median using this measure, but this has increased since 2008 due to increases in both exports of value added and labour costs of foreign affiliates (see chart insert).

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



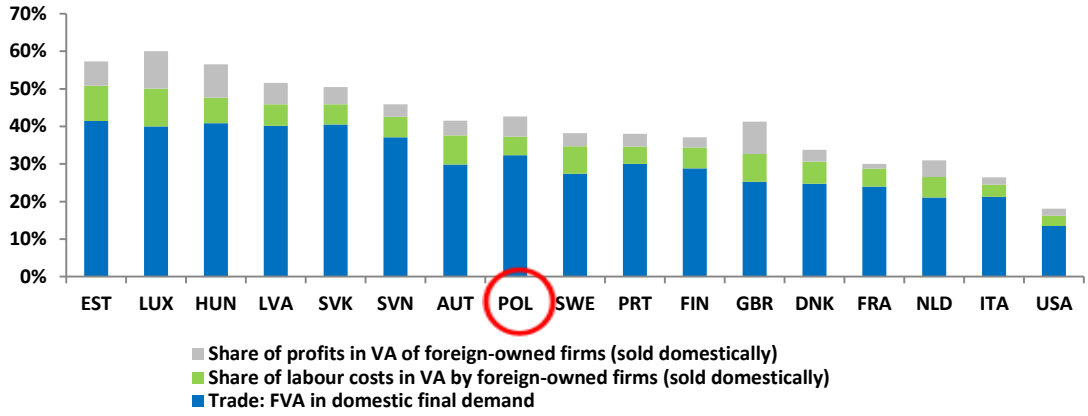
Source: OECD-WTO Trade in Value Added Data, OECD AMNE and OECD FDI (BMD4) statistics

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

Foreign producers supplied products and services for Polish final consumption equivalent to 43% of GDP in 2014; the majority is through trade (foreign value added in Polish final demand equals approximately 32% of GDP), but value added generated by foreign affiliates in Poland for domestic (non-export) sales (Figure 11) accounts for a not insignificant 10% of GDP. Although some of this value added can be

repatriated to parents, the share is similar in Poland to other OECD economies with substantial inward investment (grey bar).

Figure 11. How foreign firms serve your market: a value added perspective, 2014



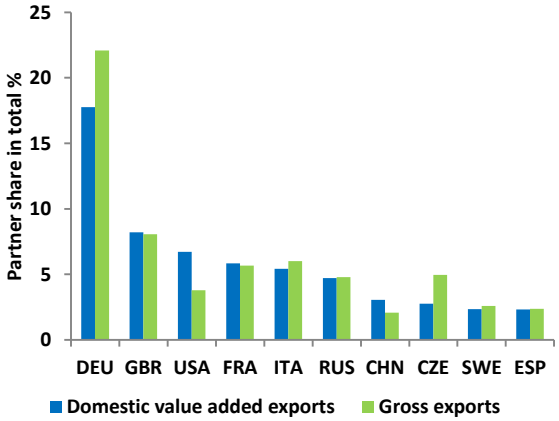
Source: OECD-WTO Trade in Value Added Data, OECD AMNE and OECD TEC statistics

Trade and investment by partner country

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

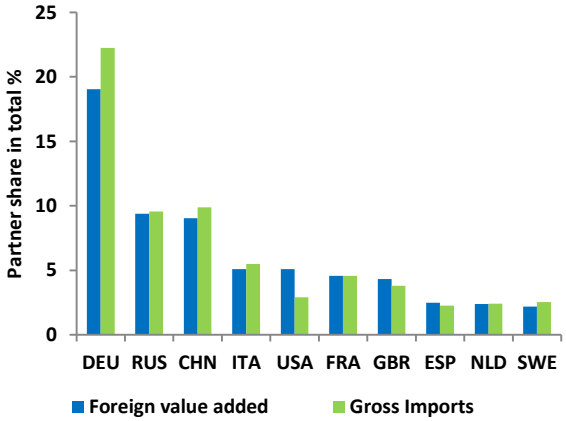
Gross bilateral trade figures can disguise the true nature of trade interdependencies, particularly between final consumers in one country and producers at upstream parts of the value chain. This is evident for the bilateral relationships with the United States, who leapfrogs France, Italy and Russia once value added data for exports are used. On the import side, Russia moves ahead of China using value added data.

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



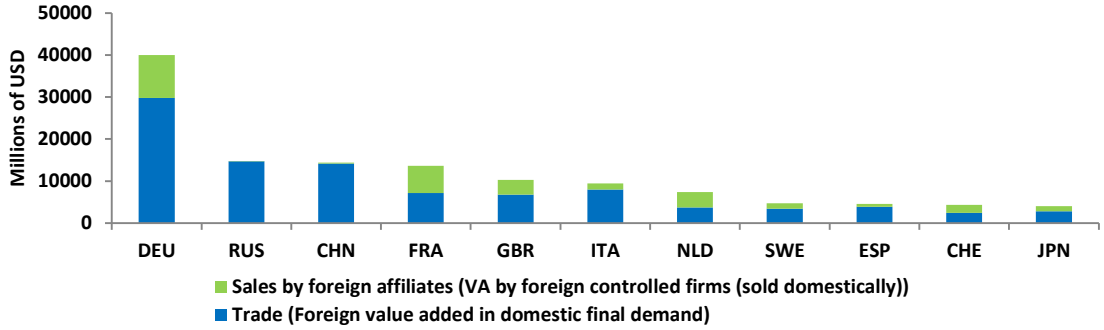
Source: OECD-WTO TiVA Data

…and interdependencies are further revealed when looking at the broader notion of 'trade'

Foreign firms can serve an economy though trade or sales by foreign affiliates; bringing the trade and investment perspectives together can shed a different light on who a country's most important partners are (Figure 14). Substantial variation exists across countries in how they supply the Polish market. For

example, while most partner countries supply Polish consumers mainly through trade, French firms do so almost evenly through trade and sales by foreign affiliates. Furthermore, considering both trade and investment France moves ahead of both the United Kingdom and Italy in relative importance, which is not evident when looking at trade data alone.

Figure 14. Supplying the Polish market via trade and investment: Top 10 partner countries, 2014



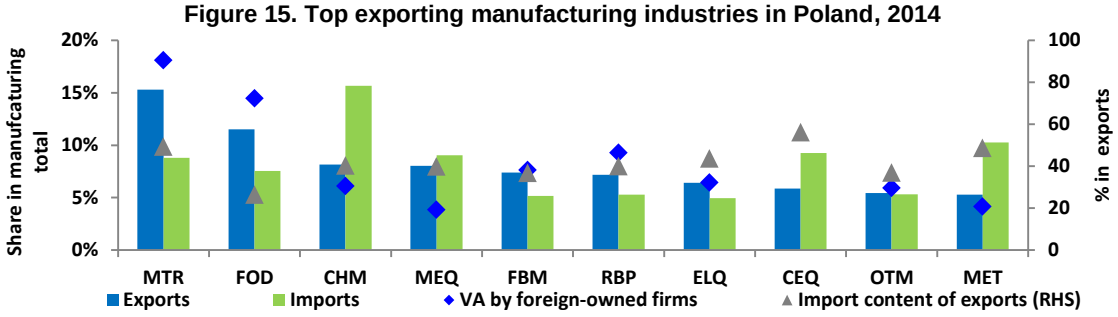
Source: OECD-WTO TiVA Data and OECD AMNE statistics

Trade and investment by industry

Inward investment helps shape Poland's GVC integration

The top manufacturing exporting industries in Poland are motor vehicles (MTR), food and beverages (FOD) and chemicals and chemical products (CHM). 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. The role of foreign-owned firms differs somewhat across Polish industry, reflecting the importance of foreign investment for certain industries.

Figure 15. Top exporting manufacturing industries in Poland, 2014

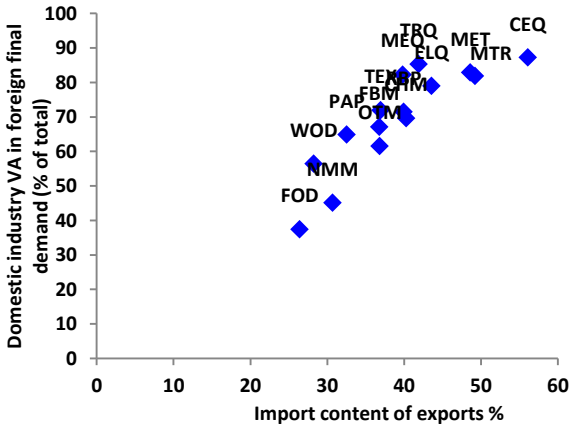


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics. See page 10 for a description of industry codes.

Exports and imports go hand in hand…

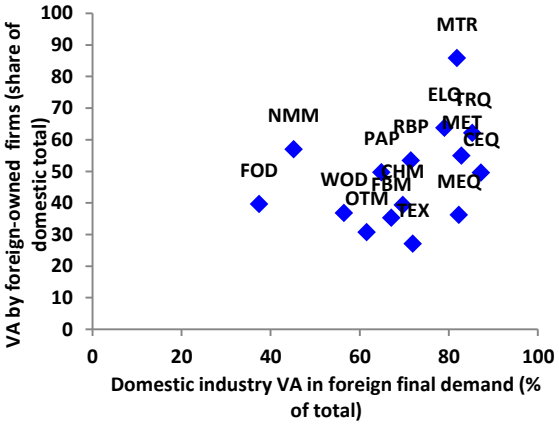
Across most industries there is a strong correlation between higher import content of exports and a higher share of their domestic value added being exported (export orientation) illustrating the strong complementarity of exports and imports.

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



Source: OECD-WTO TiVA Data and OECD AMNE statistics

Figure 17. Foreign-owned firms and export orientation, 2014

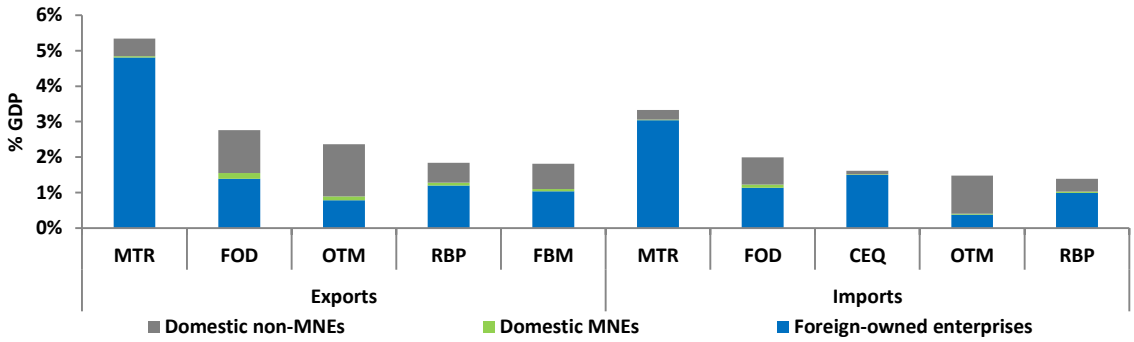


Source: OECD-WTO TiVA Data and OECD AMNE statistics

...and investment and export orientation can also go hand in hand

At the same time, strong complementarities can exist between inward investment and export orientation (Figure 17). For Poland, the industries where foreign-owned firms produce more of the value added are often those that have a higher export orientation. The motor vehicles industry highlights this point, with a high share of value added by foreign-owned firms and a high export orientation. In contrast, the machinery and equipment industry (MEQ) has comparatively low inward investment yet has a high export orientation, reflecting the strength of the domestic industry. Figure 18 illustrates trade in goods by firm ownership; foreign-owned firms are the main traders for Poland and domestic non-MNEs also play a significant role.

Figure 18. Gross trade in goods by enterprise ownership and industry, as a per cent of GDP

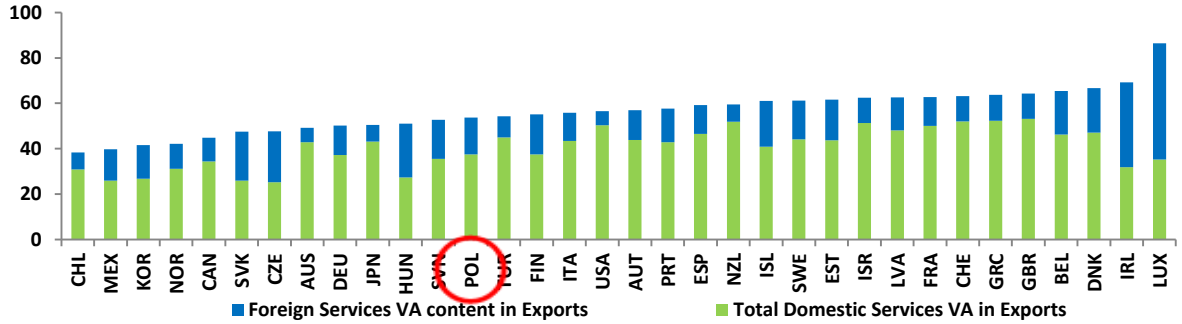


Source: OECD TEC Statistics, 2011 (latest data available)

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 Poland's total exports of goods and services was 53% in 2014 (Figure 19), below the OECD median of 57%. Considering the services content of manufactured goods alone, 40% of manufacturing exports reflects services value added, above the OECD average of 36%.

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

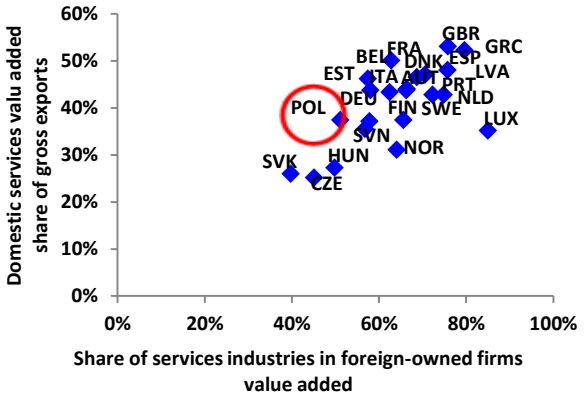


Source: OECD-WTO TiVA Data

…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 Poland, the share of investment in services is at the lower end for OECD economies, which could be correlated with the 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

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