International trade, foreign direct investment and global value chains

OECD

2017

SLOVAK REPUBLIC

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 half (45% in 2014) of economic activity (GDP) in Slovakia depends on foreign markets, one of the highest in the OECD and similar to the Czech Republic and Slovenia. Foreign-owned firms play and important role for GVC integration and their export intensity is double the OECD median value. Investment in Slovakia is inward orientated, equivalent to 46% of GDP and responsible for 20% of jobs in the private sector. A broader notion of international orientation, which captures the impact on national income of exports and sales through foreign affiliates, shows that Slovakia's international orientation was equivalent to over one third (35%) of GDP in 2014.

Considering both trade and investment through this broader perspective can also shed new light on Slovakia's most important partner countries. For example, while most partner countries supply Slovakian consumers mainly through trade, Korea does the majority through sales by foreign affiliates. Furthermore, considering both trade and investment, Italy moves ahead of Poland, and Korea jumps ahead of the United Kingdom; this is not evident when looking at trade alone.

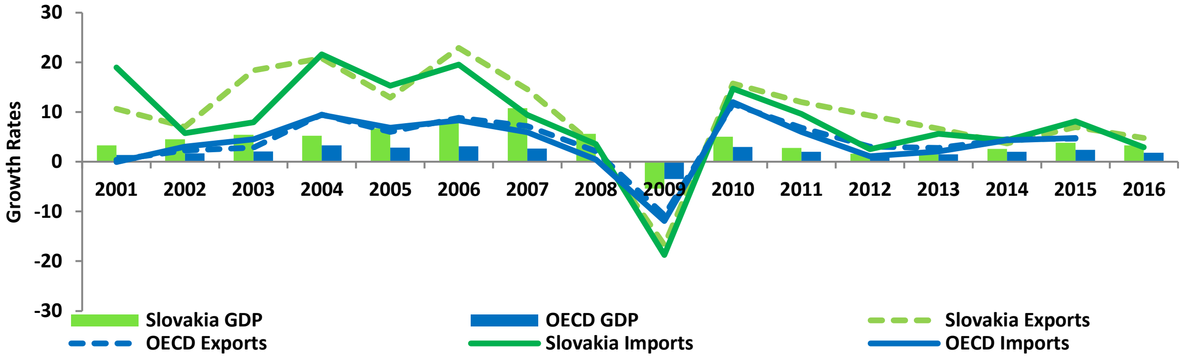
The top manufacturing exporting industries in Slovakia are motor vehicles (MTR), computers and electronics (CEQ) and machinery and equipment (MEQ). Reflecting the high GVC integration of the motor vehicle industry, nearly all of the domestic value added produced is exported and practically all of it is produced by foreign owned firms; that industry also has the highest import content of exports in Slovakia. Slovakia has one of the lower services content in exports at 47%, which could be associated with the low share of investment in services.

Trade and Investment in the Slovak Republic

Growth in trade has recovered since the global and euro crises but slowed in 2016

Like many European economies, Slovakian trade contracted significantly at the height of the global crisis and dropped again during the euro crisis. Slovakian trade growth was above the OECD average in the pre-crisis years, fell sharply during the global crisis, but reverted to growing faster than the OECD rate post crisis. Following high growth in 2015, export and import growth dropped slightly to 5% and 3% respectively in 2016.

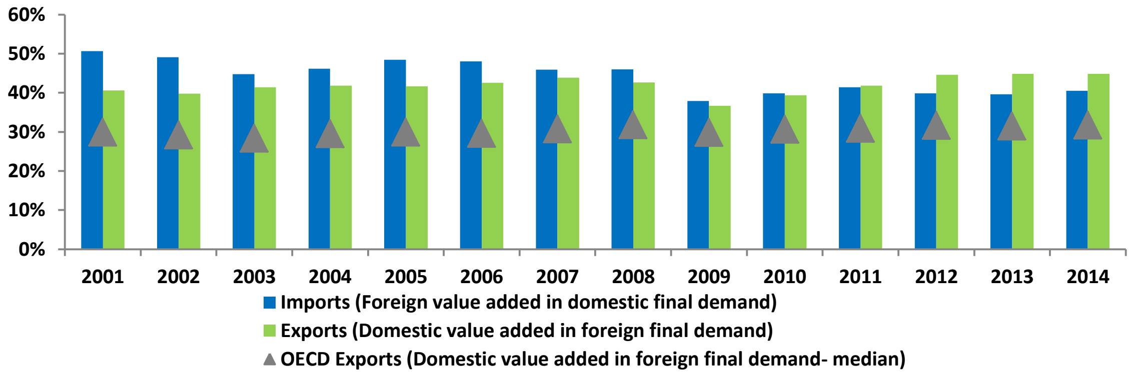
Figure 1, Growth rates of trade and GDP for the OECD and Slovakia, 2001-2016



Source: OECD SNA

Gross exports amounted to USD 84 billion in 2016 (104% of GDP), and gross imports to USD 81 billion (100% of GDP). Gross trade figures, however, overstate the 'real' contribution of trade to the economy. In value-added terms, exports contributed 45% of total GDP in 2014, above both the pre-crisis high and the OECD median (grey diamond). The contribution of direct and indirect imports to domestic final demand measured 41% in 2014.

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

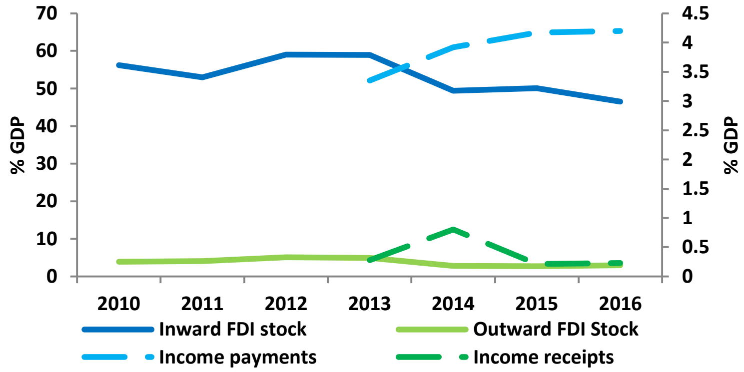


Source: OECD-WTO Trade in Value Added Data

Investment is more inward than outward orientated

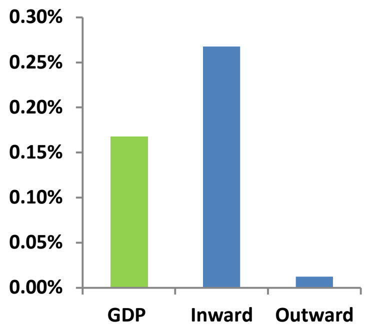
Slovakian FDI is very inward orientated with the stock in 2016 equivalent to 46% of GDP while outward FDI stocks were equivalent to just 3% of GDP (Figure 3). In 2015, Slovakia's share of the OECD total inward FDI stock (0.27%) was above its share of GDP (0.17%), but its share in outward stock was 0.01% of the OECD total, 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

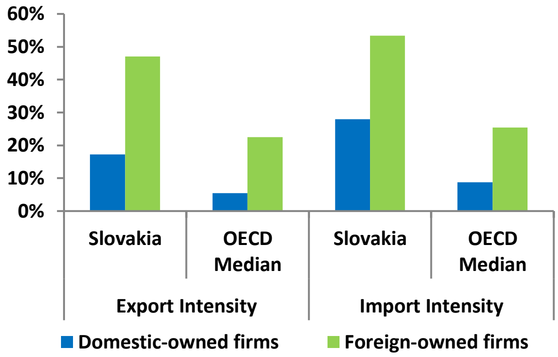


Source: OECD FDI Statistics (BMD4)

Foreign-owned firms directly sustained 22% of jobs in the private sector in 2013….

Reflecting the substantial inward investment compared to other OECD economies, foreign-owned enterprises accounted for 22% of jobs in the private sector in 2013 and 35% of private sector value added produced in Slovakia, excluding the agriculture and finance sectors.

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



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

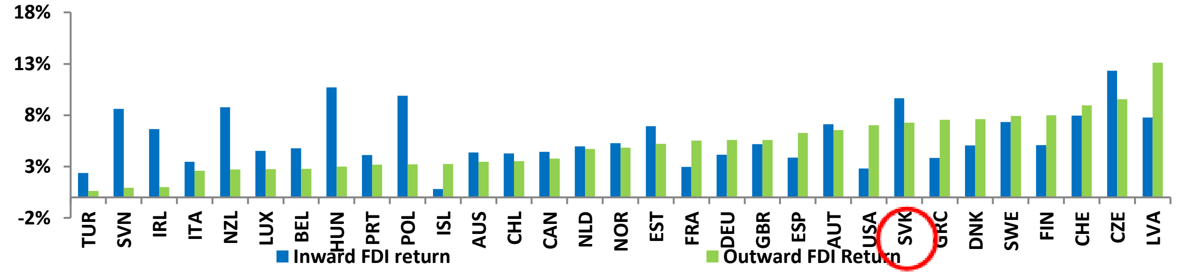
…and are more export intensive than domestically owned firms

On average, foreign-owned firms in Slovakia are over twice as export intensive (share of exports in turnover) as domestically owned firms, and their export intensity is double 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.

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

In 2015, Slovakia received USD 186 billion in income from its outward investment, equivalent to approximately 0.2% of GDP. Slovakia's rate of return at 7.3% (green bar) on its outward FDI was above the OECD median. On the other side, the return to foreign investors in Slovakia was 9.6% in 2015, at the higher end of OECD countries.

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



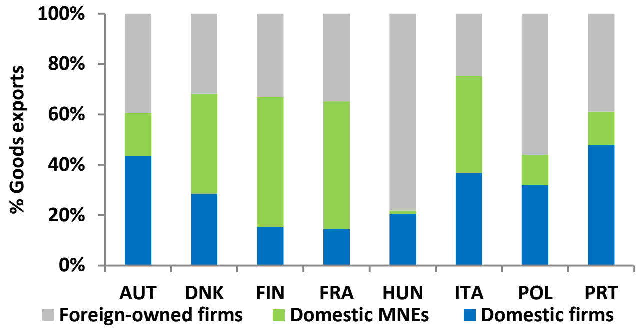
Source: OECD FDI Statistics (BMD4)

… 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.

Slovakia's export orientation is high relative to many similarly sized economies

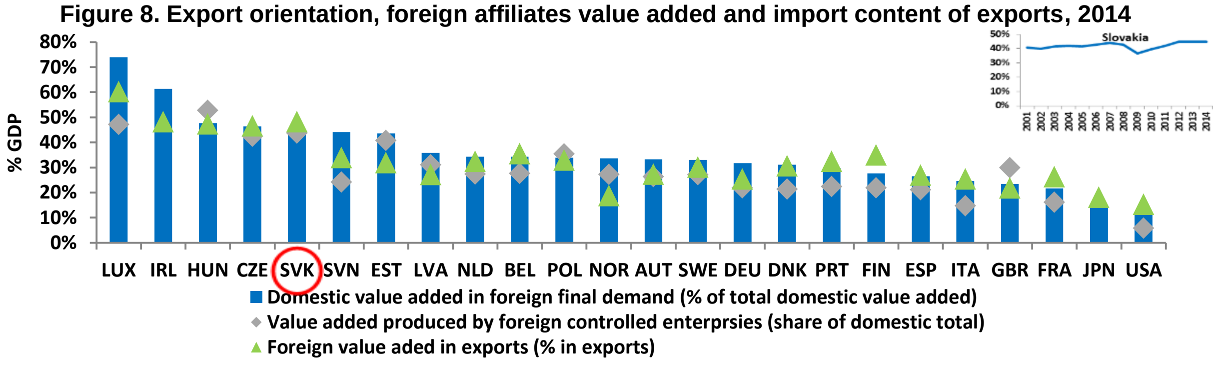
Figure 7. Goods Exports by firm type, the role of MNEs



Source: OECD TEC statistics (2011)

Exports (in value added terms) contribute around 45% of Slovakian GDP; this is high compared to other OECD economies, but comparable with the Czech Republic and Slovenia. It 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 their high GVC integration as measured by the import content of exports. Export orientation has recovered since the crisis (see insert chart).

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

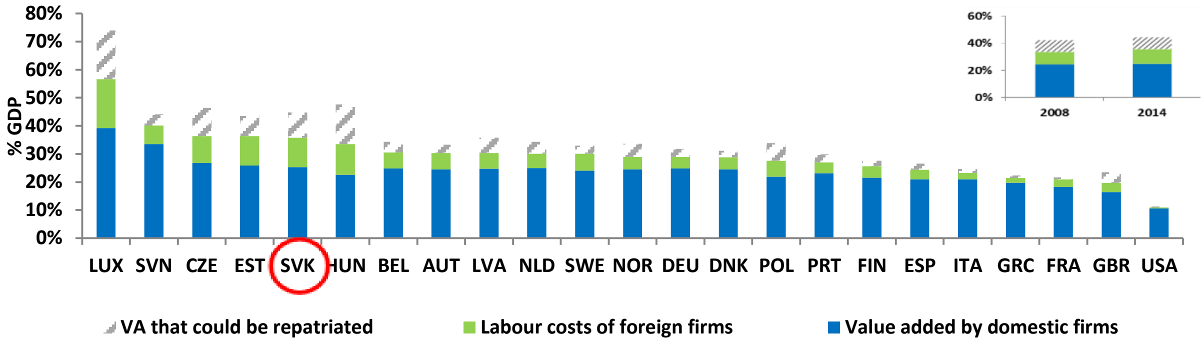


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

And 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, Slovakian exports contain 36% of value-added that remains in the economy. So, 20% of Slovakia's exported domestic value added represents profits by foreign-owned firms and 23% 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 (insert chart).

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

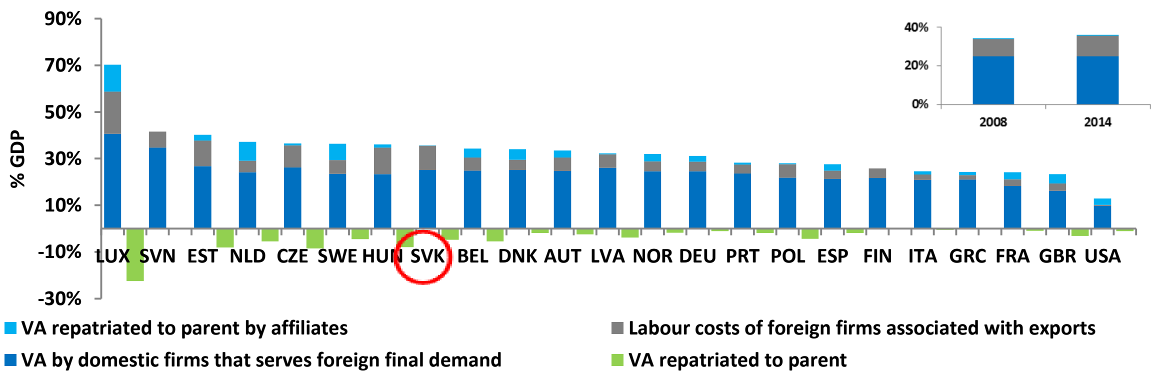


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics.

Taking a broader view by including the income of foreign affiliates can provide a more complete picture of the international orientation of the Slovakian 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 Slovakia this broader measure (35%) is lower than the export orientation measure from TiVA (45%) because Slovakia is a net recipient of inward FDI. Slovakia remains at the upper end of OECD countries using this measure, and this has increased slightly since 2008 due to increases in labour costs paid by foreign-owned firms (see chart insert).

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

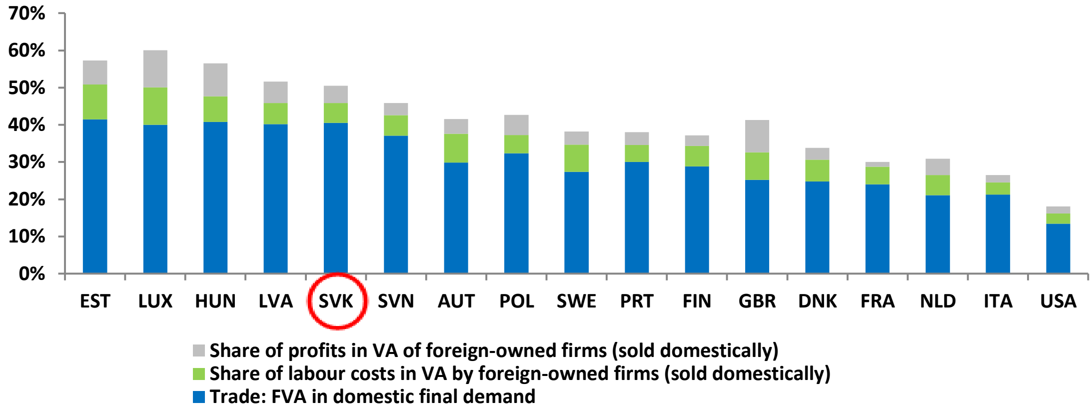


Source: OECD-WTO Trade in Value Added Data, OECD AMNE and OECD FDI (BMD4) statistics.

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

Foreign producers supplied products and services for Slovakian final consumption equivalent to 51% of GDP in 2014; the majority is through trade (foreign value added in Slovakian final demand equals approximately 40% of GDP), but value added generated by foreign affiliates in Slovakia for domestic (non-export) sales (Figure 11) accounts for 10% of GDP. Although some of this value added can be repatriated to parents, the share is similar to other countries with substantial inward investment (grey bar).

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



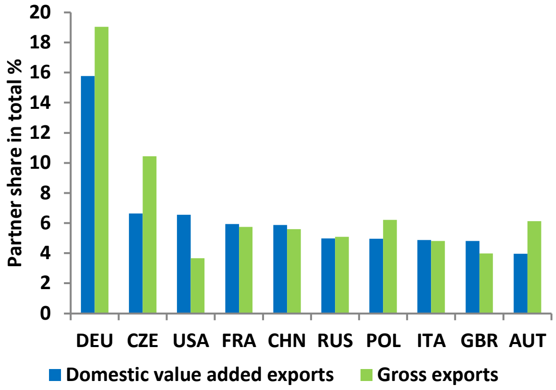
Source: OECD-WTO Trade in Value Added Data, OECD AMNE and OECD TEC statistics.

Trade and investment by partner country

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

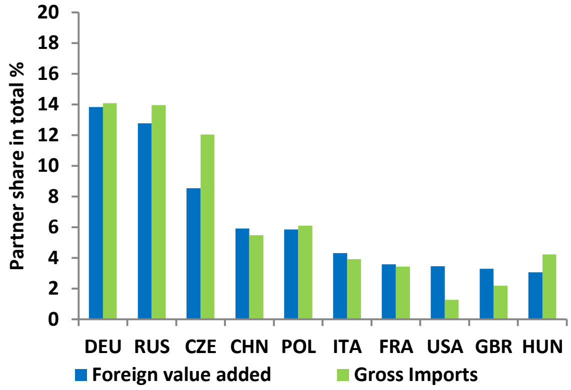
Gross bilateral trade figures can disguise the true nature of trade interdependencies, particularly between final consumers in one country and producers at upstream parts of the value chain. This is evident for exports to Poland; value added figures show that exports to Polish consumers fall behind those to French, Chinese, Russian, and American markets when value added measures are used. On the import side, value added measures indicate that both the United Kingdom and the United States are more important partners than Hungary.

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

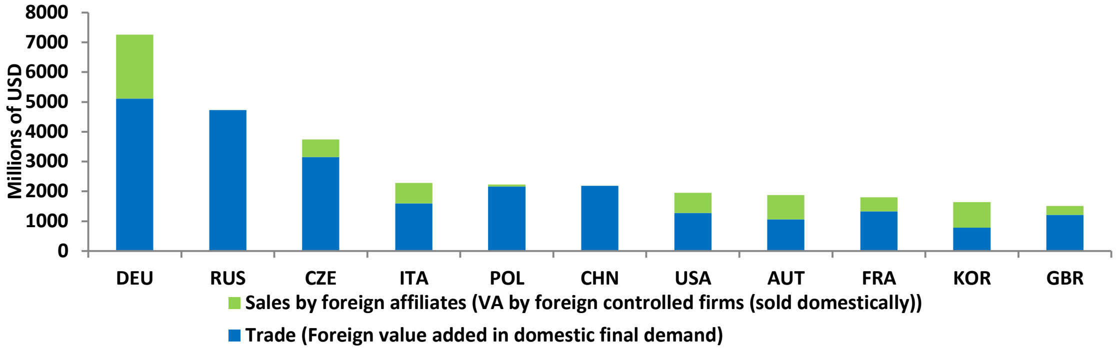


Source: OECD-WTO TiVA Data

…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 Slovakian market. For example, while most partner countries supply Slovakian consumers mainly through trade, Korea and the Netherlands do the majority through sales by foreign affiliates. Furthermore, considering both trade and investment, Italy moves ahead of Poland, and Korea jumps ahead of the United Kingdom, which is not evident when looking at trade alone.

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



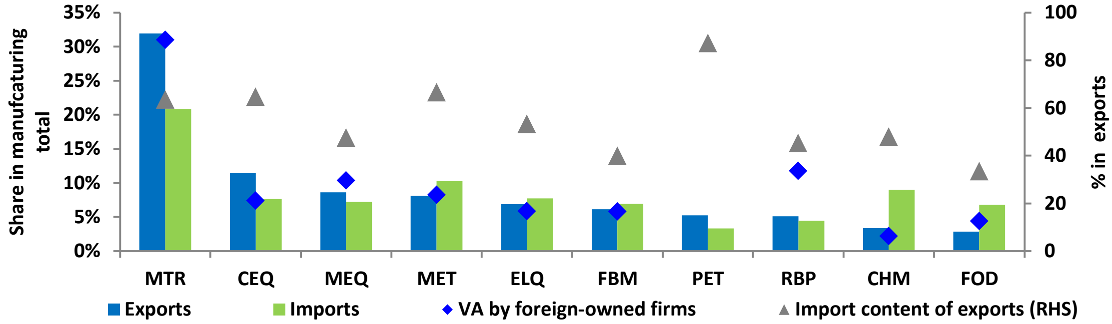
Source: OECD-WTO TiVA Data and OECD AMNE statistics
Note: Data on foreign affiliate presence is not available for Russia or China.

Trade and investment by industry

Inward investment helps shape Slovakia's GVC integration

The top manufacturing exporting industries in Slovakia are motor vehicles (MTR), computers and electronics (CEQ) and machinery and equipment (MEQ). 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 substantially across Slovakian industry, reflecting the importance of foreign investment for certain industries.

Figure 15. Top exporting manufacturing industries in Slovakia, 2014

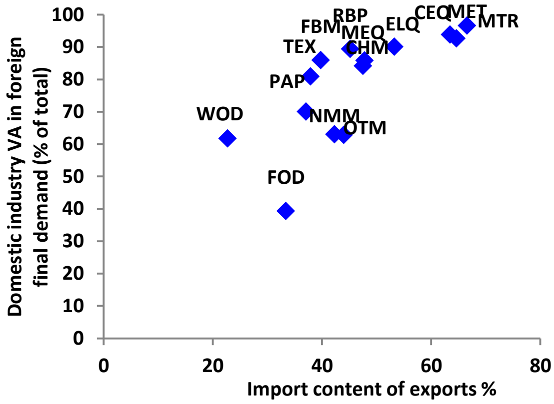


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics. See page 10 for a description of industry codes.

Exports and imports go hand in hand…

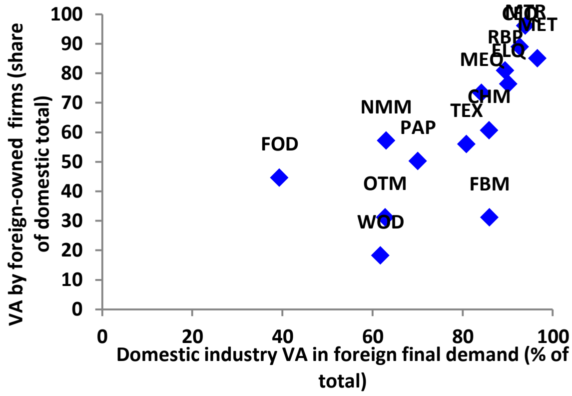
Across most industries there is a strong positive correlation between higher import content of exports and a higher share of their domestic value-added being exported (export orientation) illustrating the strong complementarity of exports and imports (Figure 16).

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

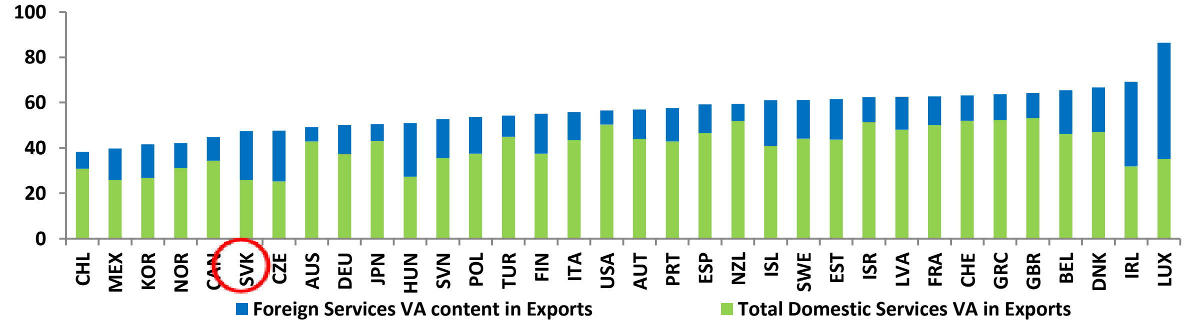
...and investment and export orientation can also go hand in hand

At the same time, strong complementarities can exist between inward investment and import content of exports (Figure 17). For Slovakia, the industries where foreign-owned firms produce more of the value added are also those that have a higher export orientation. The fabricated metals industry (FBM) is an exception, reflecting strong domestic industry. Figure 18, gross trade in goods by enterprise ownership and industry cannot be produced for Slovakia due to lack of trade data by ownership at the industry level.

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 Slovakia's total exports of goods and services was 47% 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, slightly above the OECD average of 36%.

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

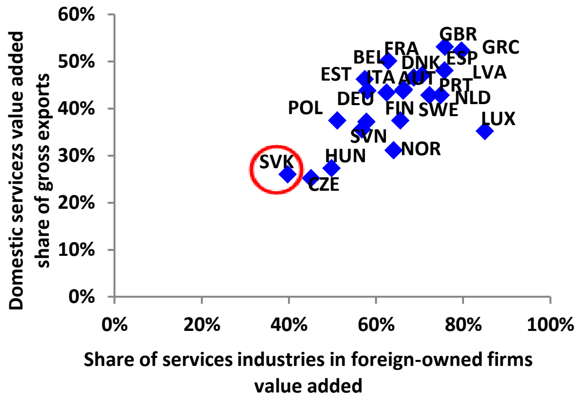


Source: OECD-WTO TiVA Data

…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. For Slovakia, 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

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