International trade, foreign direct investment and global value chains



UNITED KINGDOM

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-fifth (23% in 2014) of economic activity (GDP) in the United Kingdom depends on foreign markets, around the same as in France and Italy. The United Kingdom is extremely open from an investment perspective, both its outward (equivalent to 55% of GDP in 2015) and inward FDI stocks (equivalent to 46% of GDP in 2015) were higher than the UK share in OECD GDP. Considering a broader notion of international orientation, which captures the impact on national income of exports and sales through foreign affiliates, the United Kingdom has the same international orientation as trade data alone suggest.

While the United States, France, the Netherlands, and Japan supply the United Kingdom almost equally by trade and sales by foreign affiliates, German, Spanish and Chinese firms do so mainly through trade. Furthermore, considering both trade and investment the United States is a much more important partner than Germany; this is not evident when looking at trade data alone.

The top manufacturing exporting industries in the United Kingdom are chemicals and chemical products (CHM), motor vehicles (MTR) and machinery and equipment (MEQ). The motor vehicle industry has a high share of value added by foreign-owned rims as well as a high export orientation and high import content of exports, illustrating the role that inward investment can play in GVC integration. The United Kingdom has one of the highest services content in its exports at 64%, and the share of investment in services is at the higher end for OECD economies, which could contribute to the relatively high services content in exports.

Trade and investment in the United Kingdom

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

Like many European economies, UK trade contracted significantly at the height of the global crisis and again during the euro crisis, trade growth peaked in 2006 and fell in 2007, a year before the OECD aggregate. Since 2010, UK trade has been positive, but below OECD rates. In 2016, export growth declined noticeably to 1.4%, following a post crisis high of 4.8% in 2015.

15 10 **Growth Rates** 5 0 2011 2013 2002 2003 2004 2005 2006 2007 2010 2012 2014 2015 2016 -5 -10 **United Kingdom GDP** OECD GDP **United Kingdom Exports** -15 **OECD Exports United Kingdom Imports OECD Imports**

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

Source: OECD SNA

Gross exports amounted to USD 735 billion in 2016 (32 per cent of GDP), and gross imports to USD 785 billion (34 per cent of GDP). Gross trade figures however overstate the 'real' contribution of trade to the economy. In value-added terms, exports contributed 23% per cent of total GDP in 2014, slightly below the previous few years and below the OECD median (grey diamond). The contribution of direct and indirect imports to domestic final demand measured 25% in 2014, also down on recent years.

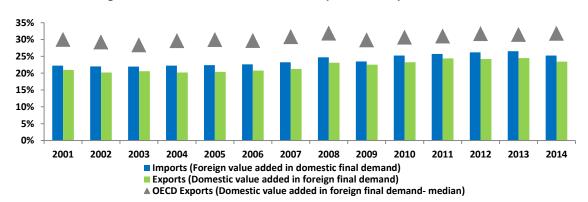


Figure 2. Trade in value added terms, imports and exports, 2001-2014

Source: OECD-WTO Trade in Value Added Data

Investment is slightly more outward than inward

Although both outward and inward FDI stocks have been fluctuating relative to GDP since 2008, FDI remains more outward orientated (Figure 3). In 2015, both the United Kingdom's share of the OECD total inward FDI stock (8.6%) and its share of the total outward FDI stock (8.1%) were above its share of GDP (5.5%) (Figure 4).

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

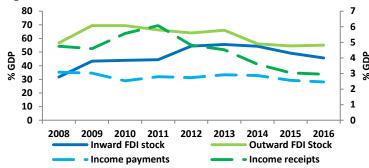
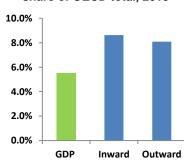


Figure 4. FDI stocks and GDP as a share of OECD total, 2015



Source: OECD FDI Statistics (BMD4) Source: OECD FDI Statistics (BMD4)

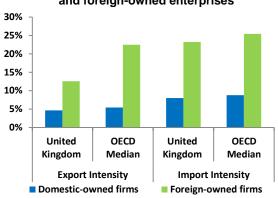
Foreign-owned firms directly sustained 19% of jobs in the private sector in 2013....

Reflecting the size of inward investment, foreign-owned enterprises accounted for 19% of jobs in the private sector in 2013 and 29% of private sector value added produced in the United Kingdom, excluding the agriculture and finance sectors.

...and are more export intensive than domestically owned firms

On average, foreign-owned firms in the United Kingdom are twice as export intensive (share of exports in turnover) as domestically owned firms, but their export intensity is below the OECD median, partly reflecting a relative orientation towards the comparatively large UK market. The import intensity of foreign-owned firms (share of imports in purchases) is also significantly higher for foreign-owned than domestic firms, and is just below 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, the United Kingdom received USD 87 billion in income from its outward investment, equivalent to approximately 3% of GDP. The United Kingdom's rate of return at 5.6% (green bar) on its outward FDI is above the OECD median, but below its 2011 rate (see chart insert). On the other hand, the return to foreign investors in the United Kingdom was 5.2% in 2015, also above the OECD median.

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



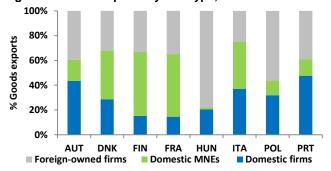
Source: OECD FDI Statistics (BMD4)

...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.

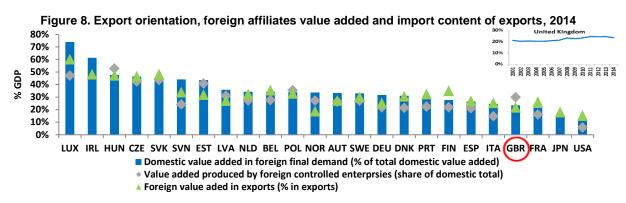
But the United Kingdom's export orientation is low relative to other OECD economies

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



Source: OECD TEC statistics (2011)

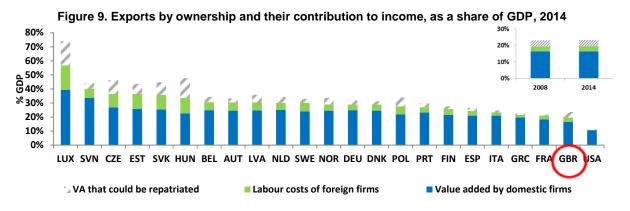
Exports (in value added terms) contribute around 23% of the United Kingdom's GDP, this is relatively low compared to other OECD economies, but comparable with France and Italy, and it may in part reflect the relatively low export intensity of foreign-owned firms (compared to foreign affiliates operating in other countries) despite high levels of inward investment. However, export orientation has increased slightly since the crisis (see insert chart).



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...

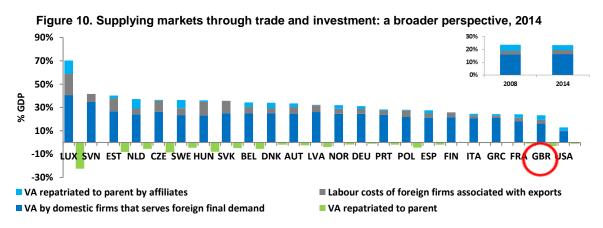
Gross export figures overstate the real economic impacts of trade to the exporting economy, but TiVA estimates can also overstate these impacts as the profits earned by foreign-owned firms through exports are repatriated if they are not reinvested. Figure 9 illustrates the importance of these flows across 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 UK exports contain 20% of value-added that remains in the economy. So, 16% of the United Kingdom's exported domestic value added represents profits by foreign-owned firms and 14% of the United Kingdom's exported domestic value added represents the wages these firms pay, reflecting high levels of inward investment. The share of value added that remains in the economy has remained constant since 2008, (insert chart).



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 UK 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 the United Kingdom, this broader measure (23%) is the same as the export orientation measure from TiVA because the United Kingdom is almost a balanced investor of FDI. The United Kingdom remains at the lower end of OECD countries using this measure, and this indicator has remained the same since 2008 (see chart insert).



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 UK market

Foreign producers supplied products and services for UK final consumption equivalent to 41% of GDP in 2014, although the majority is through trade (foreign value added in UK final demand equals approximately 25% of GDP), value added generated by foreign affiliates in the United Kingdom for domestic (non-export) sales (Figure 11) accounts for 16% of GDP, one of the highest shares in the OECD.

Some of this value added can be repatriated to parents; this share is towards the higher end of OECD economies (grey bar).

70% 60% 50% 40% 30% 20% 10% 0% **EST** LUX HUN SVK SVN AUT POL SWE PRT FIN GBR DNK FRA ■ Share of profits in VA of foreign-owned firms (sold domestically) Share of labour costs in VA by foreign-owned firms (sold domestically) ■ Trade: FVA in domestic final demand

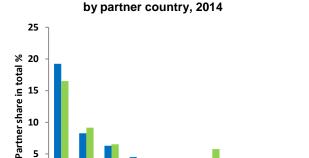
Figure 11. How foreign firms serve your market: a value added perspective, 2014

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 especially evident for the bi-lateral relationship with both Ireland and the United States for exports. Looking only at gross data would overstate the importance of Ireland and understate that of the United States.



IRL

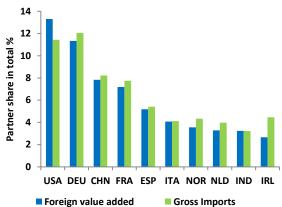
Gross exports

ESP

JPN NLD RUS

Figure 12. Exports: gross and value added terms,

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



Source: OECD-WTO TiVA Data

USA DEU FRA CHN ITA

■ Domestic value added exports

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 UK market. While the United States, France, the Netherlands, and Japan supply the United Kingdom almost equally by trade and sales by foreign affiliates, German, Spanish and Chinese firms do so mainly through trade. Furthermore, considering both trade and investment the United States is a much more important partner than Germany; this is not evident when looking at trade alone. Italy drops behind the Netherlands, Japan and India once sales by affiliates are considered.

300000 250000 200000 Millions of USD 150000 100000 50000 0 USA **FSP** CHN NLD IPN IND NOR IRL -50000 Sales by foreign affiliates (VA by foreign controlled firms (sold domestically)) ■ Trade (Foreign value added in domestic final demand)

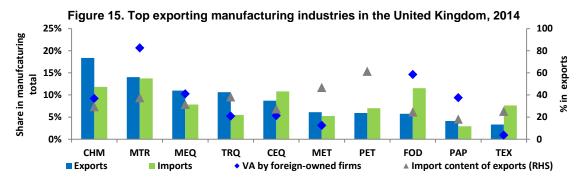
Figure 14. Supplying the UK market via trade and investment: Top 10 partner countries, 2014

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

Trade and investment by industry

Outward and inward investment helps shape the United Kingdom's GVC integration

The top manufacturing exporting industries in the United Kingdom are chemicals and chemical products (CHM), motor vehicles (MTR) 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 UK industry, in part reflecting the United Kingdom's own comparative advantages and specialisation of its MNEs, and also reflecting the importance of foreign investment for certain 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 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. Import content of exports and export orientation, 2014

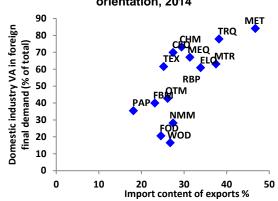
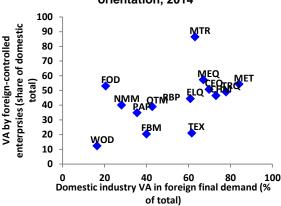


Figure 17. Foreign-owned firms and export orientation, 2014



Source: OECD-WTO TiVA Data and OECD AMNE statistics

Source: OECD-WTO TiVA Data and OECD AMNE statistics

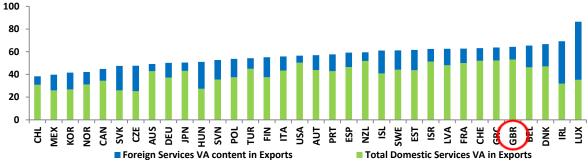
...and investment and export orientation can also go hand in hand

At the same time, strong complementarities can exist between inward investment and export orientation (Figure 17). For the United Kingdom, this relationship is less strong. However, some industries where foreign-owned firms produce more of the value added are also those that have a higher import content of exports, such as MTR. Figure 18, goods trade by enterprise ownership and industry, cannot be produced for the United Kingdom due to the lack of availability of trade by enterprise characteristic data at the industry level as well as the detailed split between domestic MNEs and domestic non-MNEs.

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 the United Kingdom's total exports of goods and services was 64% in 2014 (Figure 19), considerably above the OECD median of 56%. Considering the services content of manufactured goods alone, 37% of manufacturing exports reflects services value added, fractionally above the OECD average of 36%.

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

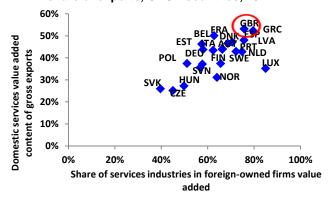


Source: OECD-WTO TiVA Data

...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 the United Kingdom, the share of investment in services is at the higher end for OECD economies, which could contribute to the relatively high 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, some detailed data about the United Kingdom's trade is needed. The Trade by Enterprise Characteristics data at the industry breakdown would enable the production of Figures 7 and 18 for the United Kingdom.

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
	СНМ	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
	нтн	Health and social work
	OTS	Other community, social and personal services
	PVH	Private households with employed persons

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