

International trade, foreign direct investment and global value chains



2017

NORWAY

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 Norway depends on foreign markets, around the same as in Austria and Sweden. Norway's outward investment (equivalent to 43% of GDP in 2015) was larger than inward investment (37%), and foreign-owned enterprises accounted for one-fifth of private sector jobs. A broader notion of international orientation, which captures the impact on national income of exports and sales through foreign affiliates, shows that Norway's international orientation was equivalent to 32% of GDP in 2014.

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 relationship with Sweden; once value added measures are used it falls behind the United States and France as a destination for Norwegian exports.

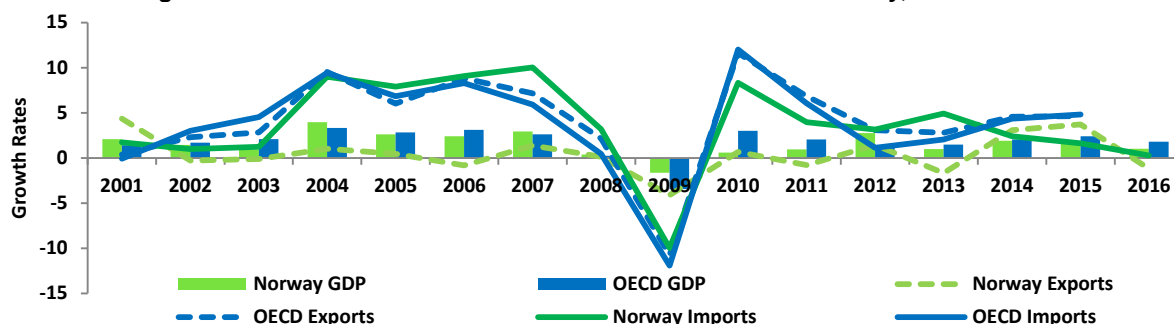
The top manufacturing exporting industries in Norway are basic metals (MET), chemicals and chemical products (CHM) and food products (FOD). The basic metals industry has high export orientation and high GVC integration as measured by the import content of exports, with low value added by foreign owned firms, reflecting the strength of domestic industry. In other industries, it is foreign-owned firms that can facilitate GVC integration. Norway has one of the lower services content in its exports at 42%, and this is correlated with a relatively low share of its inward investment going to the services sector.

Trade and investment in Norway

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

Like many OECD economies, Norwegian imports contracted at the height of the global crisis, and have slowed in recent years. Norwegian import growth was similar to the OECD average in the pre-crisis years but diverged slightly since the crisis. Norwegian exports behaved quite differently over the period, likely mirroring fluctuations in oil demand and prices. However, in 2016, both export and import growth fell.

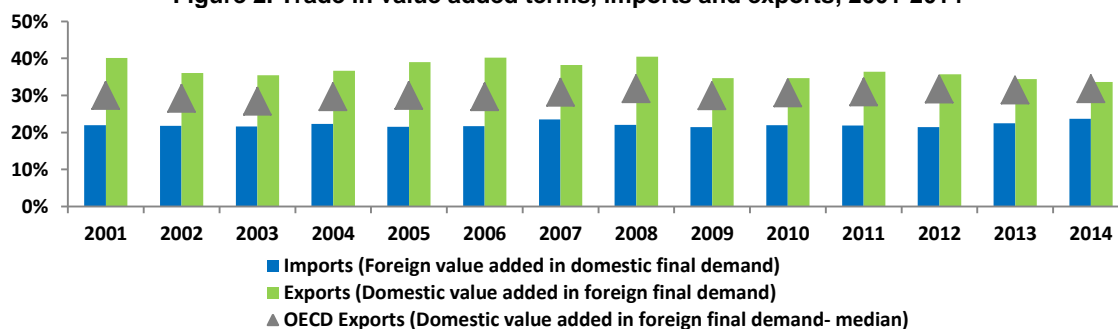
Figure 1. Growth rates of Trade and GDP for the OECD and Norway, 2001-2016



Source: OECD SNA

Gross exports amounted to USD 125 billion in 2016 (38% of GDP), and gross imports to USD 121 billion (37% 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, below the 40% peak recorded in 2008 but above the OECD median (grey diamond). The contribution of direct and indirect imports to domestic final demand reached a new high in 2014 of 24%.

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

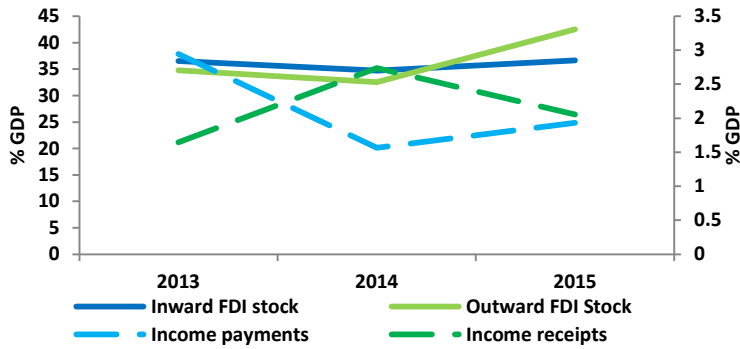


Source: OECD-WTO Trade in Value Added Data

Investment is slightly more outward than inward

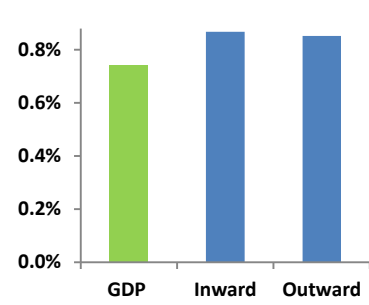
FDI is more outward orientated in Norway, Norwegian outward FDI increased relative to GDP in the last two years and is now equivalent to 43% of GDP, up from 35% in 2013, while inward stocks were equivalent to 37% of GDP in 2015 (Figure 3). In 2015, Norway’s share of the OECD total outward FDI stock and its share of the OECD total inward stock were both 0.9%, slightly above its share of GDP (0.7%) (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)

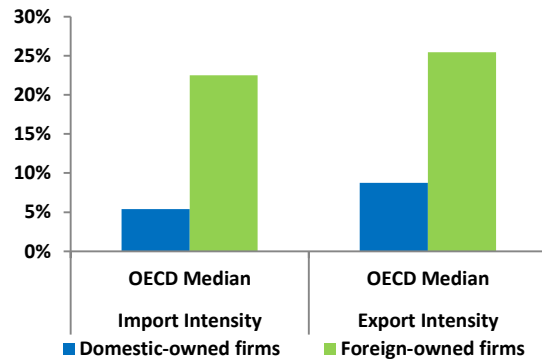
Foreign-owned firms directly sustained 20% of jobs in the private sector in 2013....

Although inward investment is not as high as other OECD economies, foreign-owned enterprises accounted for 20% of jobs in the private sector in 2013 and 26% of private sector value added produced in Norway, excluding the agriculture and finance sectors.

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

On average, foreign-owned firms in OECD countries are more export intensive (share of exports in turnover) as domestically owned firms, The import intensity of foreign-owned firms (share of imports in purchases) is also significantly higher for foreign-owned than domestic firms across OECD members. Although data are not available for Norway, it is likely similar behaviour would be observed.

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, Norway received USD 8 billion in income from its outward investment, equivalent to approximately 2% of GDP. Norway's rate of return at 4.8% (green bar) on its outward FDI is just above the OECD median. On the other side, the return to foreign investors in Norway was 5.3% in 2015, also close to the median of OECD countries.

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

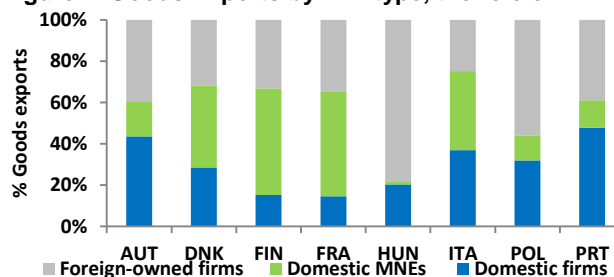


Source: OECD FDI Statistics (BMD4)

... 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.

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

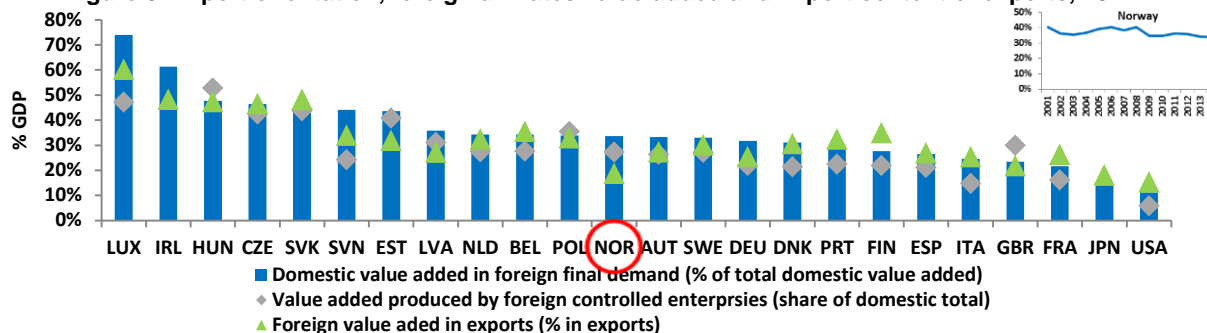


Source: OECD TEC statistics (2011)

Norway's export orientation is close to the OECD median

Exports (in value added terms) contribute around 34% of Norwegian GDP; this is close to the OECD median and comparable with Austria and Sweden. However, GVC integration as measured by the import content of exports is comparatively low for Norway, which likely reflects the important role of oil in the economy. Export orientation has dropped since the crisis (see insert chart).

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

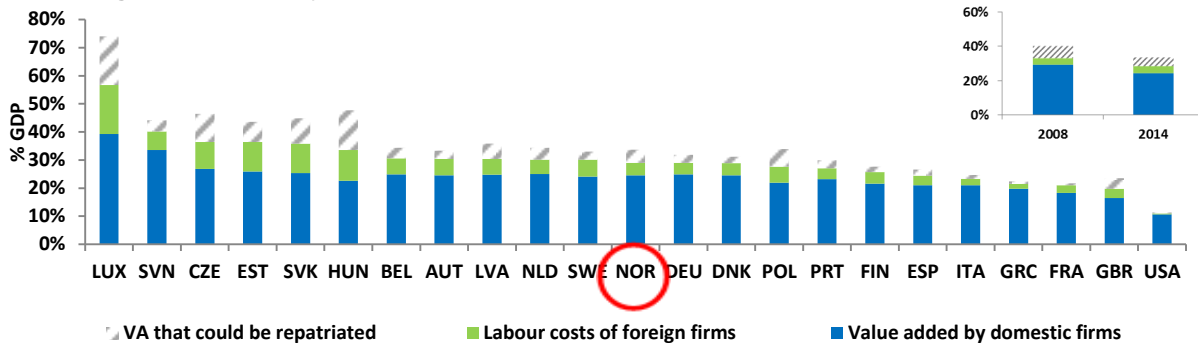


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

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, Norwegian exports contain 29% of value-added that remains in the economy. So, 14% of Norway's exported domestic value added represents profits by foreign-owned firms and 13% represents wages paid by these foreign firms. The share of value added that remains in the economy has decreased since 2008 due to falling value added by domestic firms and profits of foreign-owned firms (insert chart).

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

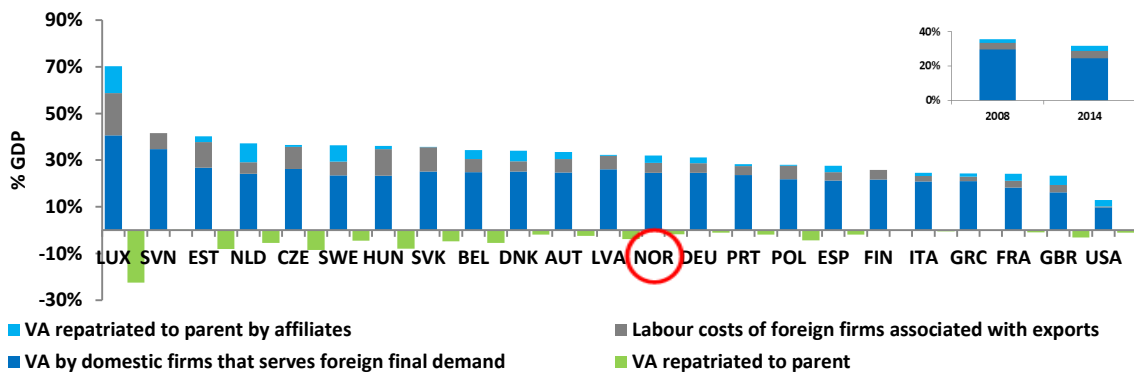


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics

Taking a broader view by including the income of foreign affiliates can provide a more complete picture of the international orientation of the Norwegian 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 Norway this broader measure (32%) is lower than the export orientation measure from TiVA (34%) because in 2014 Norway was a net recipient of inward FDI. Norway remains towards the middle of OECD countries using this measure, but this has fallen since 2008 due to a drop in exports of value added and profits paid to Norwegian parents by foreign affiliates (see chart insert).

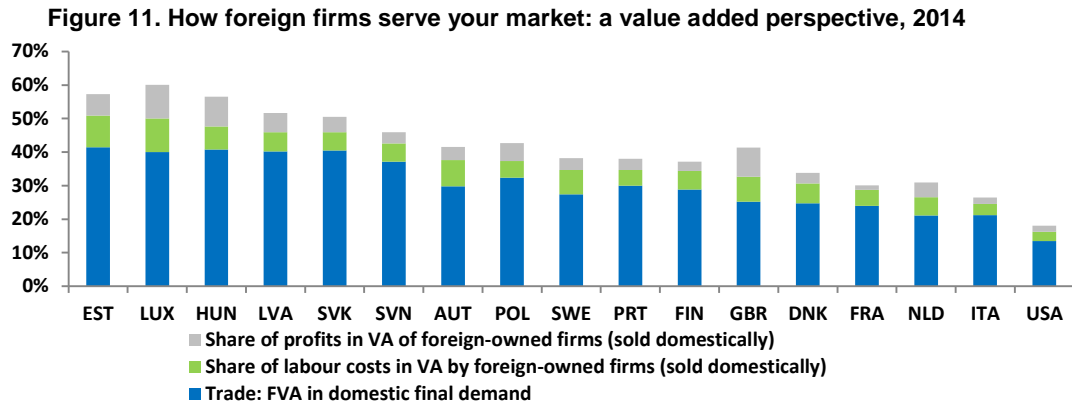
Figure 10. Supplying markets through trade and investment: a broader perspective, 2014



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 domestic market

Foreign producers supply products and services for final consumption through trade (foreign value added in final demand), and sales by foreign affiliates (non-export). The value added by foreign affiliates can either stay in the economy in the form of wages, or some of this value added can be repatriated to parents, these shares vary across OECD countries. Due to data availability this cannot be calculated for Norway.



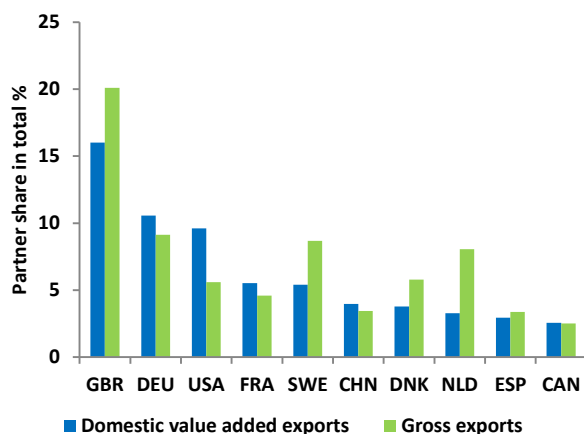
Source: OECD-WTO Trade in Value Added Data, OECD AMNE and OECD TEC statistics

Trade and investment by partner country

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

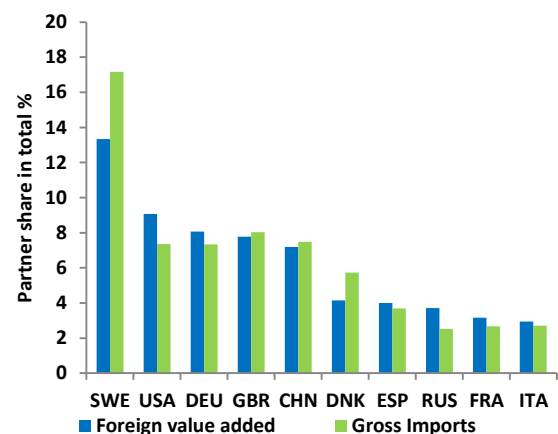
Gross bilateral trade figures can disguise the true nature of trade interdependencies, particularly between final consumers in one country and producers at upstream parts of the value chain. This is evident for the bilateral relationship with Sweden; once value added measures are used it falls behind the United States and France as a destination for Norwegian exports.

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



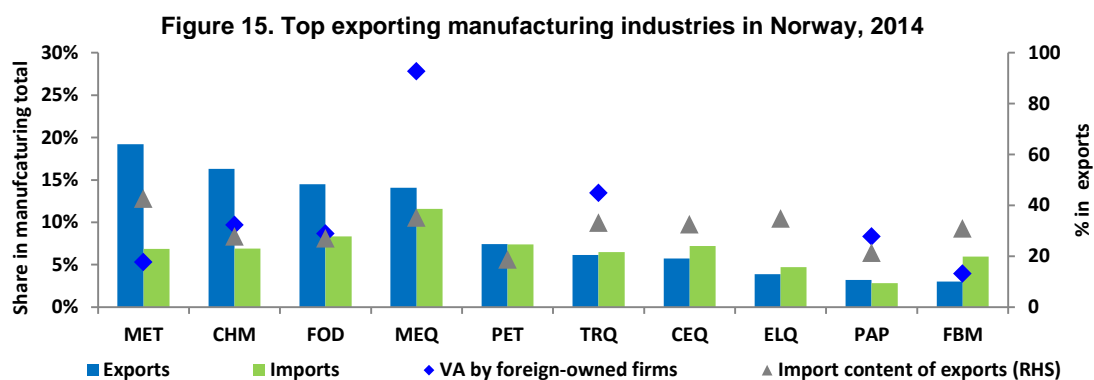
Source: OECD-WTO TiVA Data

Figure 14 cannot be produced for Norway due lack of data on trade by enterprise characteristics required to produce the export intensity of foreign owned firms.

Trade and investment by industry

Outward and inward investment help shape Norway's GVC integration

The top manufacturing exporting industries in Norway are basic metals (MET), chemicals and chemical products (CHM) and food products (FOD). 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 across Norwegian industry, in part reflecting Norway's own comparative advantages and specialisation of its MNEs as well as the importance of foreign investment for certain industries.

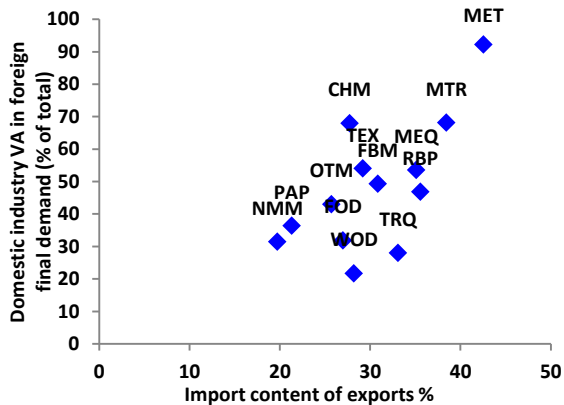


Source: OECD-WTO Trade in Value Added Data and OECD AMNE statistics. See page 10 for a description of industry codes.

Exports and imports go hand in hand...

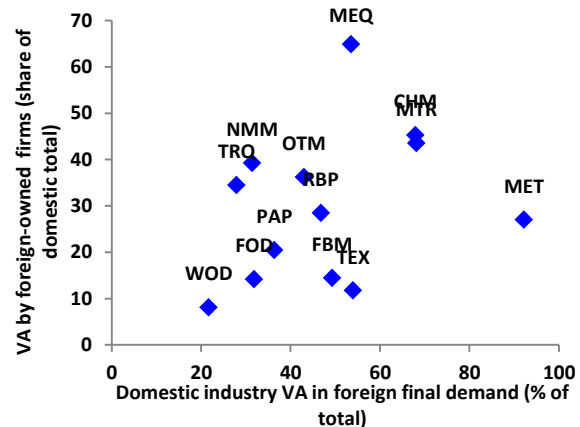
Across most Norwegian industries there is a strong correlation between higher import content of exports and a higher share of their domestic value-added being exported (export orientation) illustrating the strong complementarity of exports and imports (Figure 16).

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

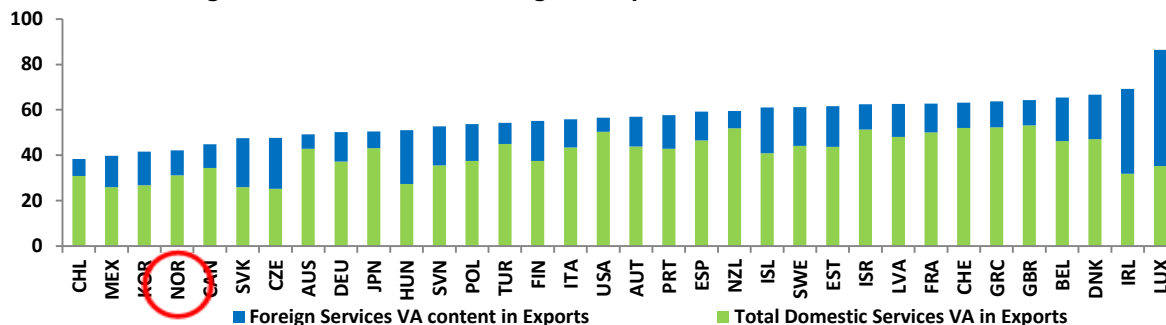
...and investment and export orientation can also go hand in hand

At the same time, strong complementarities can exist between inward investment and export orientation (Figure 17). For Norway, some industries where foreign-owned firms produce more of the value added are also those that have a higher export orientation. The basic metals industry is an exception reflecting the strong domestic industry. Figure 18, the trade in goods by firm ownership and industry, cannot be computed for Norway due to data availability.

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 Norway's total exports of goods and services was 42% in 2014 (Figure 19), below the OECD median of 57%. Considering the services content of manufactured goods alone, 35% of manufacturing exports reflects services value added, just below the OECD average of 36%.

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

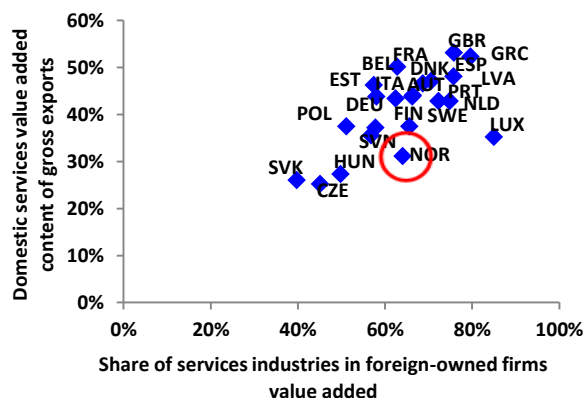


Source: OECD-WTO TiVA Data

...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 Norway, the share of investment in services is at the median OECD economies which could contribute to 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

Annex: Further data requirements

To make this note as informative as those of other OECD countries more detailed data about Norwegian trade and investment are needed. Primarily, data on Trade by Enterprise Characteristics (TEC) at the aggregate level would enable the creation of Figures 5, 7, 11, 14, at the industry level would enable the creation of Figure 18 for Norway.

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	