

TRADE IN VALUE ADDED: NORWAY

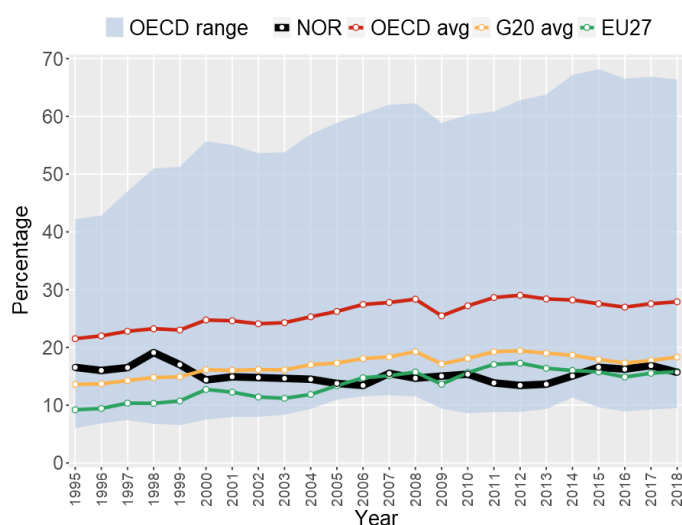
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Trade in Value Added (TiVA) indicators offer new insights into the commercial relations among economies and provide a broad view of where value is created along each stage of global value chains (GVCs). Painting a more complete picture than gross trade measures alone, the TiVA approach better reflects the significantly higher contribution made by services in GVCs, the role of imports in export performance, and the true nature of economic interdependencies. The 2021 version of the TiVA database covers 66 economies and 45 industrial sectors, for the years 1995 to 2018, and brings together indicators based on the value-added origins (both country and industry) of exports, imports and final demand. This note highlights the trade patterns in value-added terms for Norway, with a view to informing policy making for a range of areas including trade, innovation and investment.

Key findings

- ▶ As a major natural gas and oil producing country, the foreign content of Norway's exports peaked in 1998 at 19.1%, well below the OECD average (27.9%), and has, since 2008, slightly increased to 15.7% in 2018 (Figure 1). Industries with relatively high foreign content in their exports included *Basic metals* (42.3%) and *Motor vehicles* (39.6%) (Figure 3a).
- ▶ Norway's share of domestic value added meeting foreign final demand decreased to 32.2% in 2018 from 39.9% a decade earlier. The sectors most dependent on foreign final demand are *Mining and quarrying*, 88.7%, and the manufacturing sector of *Basic metals*, 80.7% (Figure 2).
- ▶ In 2018, the largest partners for Norway's exports in value-added terms were the UK (14.2%), Germany (13.4%) and the United States (11%). The latter's share of Norwegian gross exports is a considerably smaller, 7.6%, signaling that a considerable amount of Norway's value added reaches the United States indirectly, via exports of intermediate goods to partners such as Sweden and Germany (Figure 5).
- ▶ The services content of Norway's gross exports stood at 36% in 2018, slightly above 2008 levels (31.1%) and significantly below the OECD average of 55.7%. For manufactures, this share remained roughly unchanged since 2008 around 31% (Figure 7).

Figure 1. Foreign value-added content of gross exports
As a percent of total gross exports, 1995 to 2018



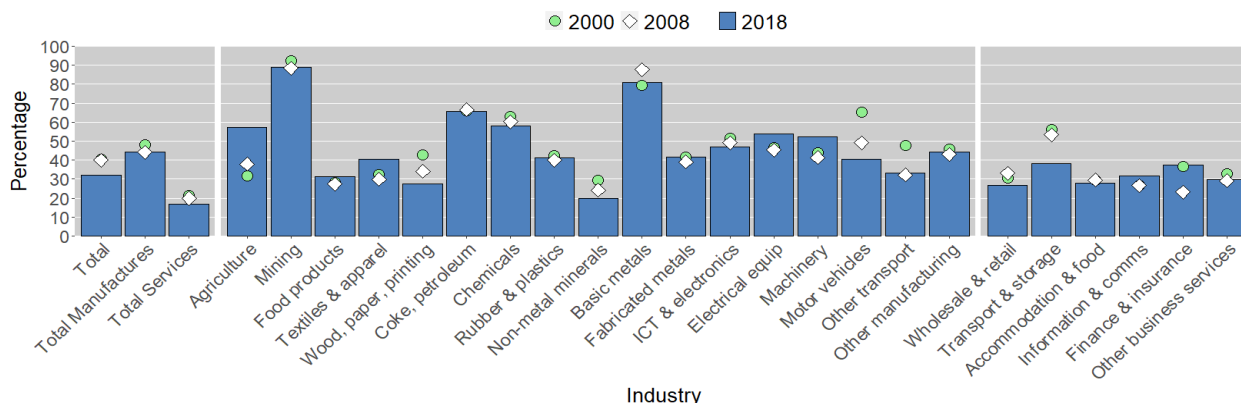
At the global level, the new TiVA indicators confirm that there has been a slowdown in GVC integration since the Financial Crisis in 2008-2009 (Figure 1). However, in general, foreign value added in trade increased between 2016 and 2018.

Between 2008 and 2018, the foreign content of Norway's exports is estimated to have increased from 14.7% to 15.7% - significantly below the OECD average of 27.9%. Compared to 2008, the foreign content of exports in 2018 was 1 percentage point higher.

The role of foreign final demand in domestic production

Overall, in 2018, 32.2% of Norway's domestic value added was driven by foreign final demand, down from 39.9% in 2008. By industry, the shares ranged from *Mining and quarrying* (88.8%) and *Basic metals* (80.7%) at the higher end to *Other non-metallic mineral products* (19.7%) at the lower end.

Figure 2. Norway - domestic value added in foreign final demand
As a percent of value added, by industry, 2000, 2008 and 2018



The importance of imports for exports

The industries with the most foreign value-added contents in their exports (Figure 3a) were *Basic metals* (42.3%), *Motor vehicles* (39.6%) and *Rubber and plastics products* (38%). *Mining and quarrying* generated the greatest source of domestic value-added content of exports in 2018, accounting for 42.4% of gross exports (Figure 3b), followed by *Transport and storage* (5.7%) and *Other business services* (4.9%). The most foreign content in total exports came from *Transport and storage* (2.4%).

Figure 3a. Norway - foreign value-added content of gross exports
As a percent of gross exports, by industry, 2000, 2008 and 2018

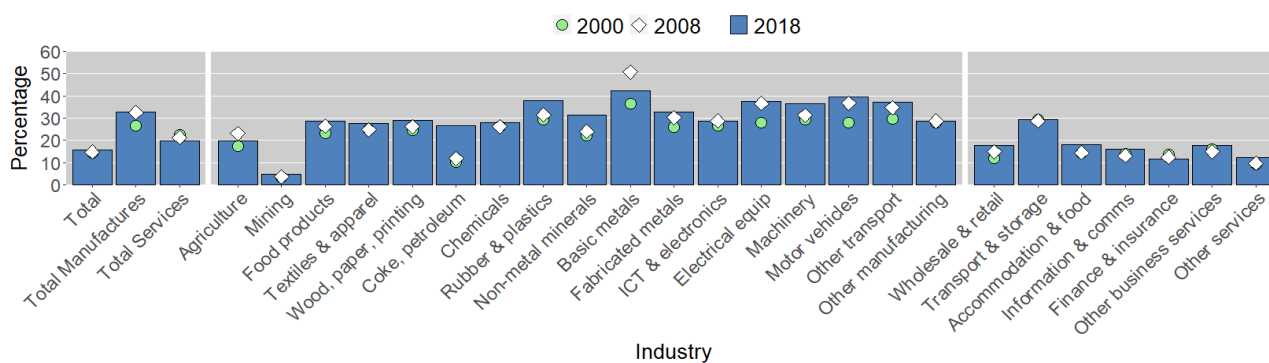
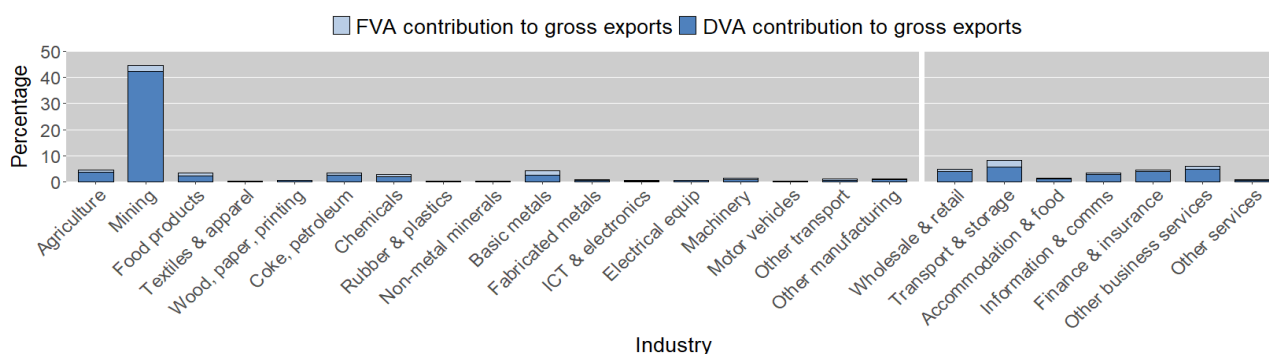
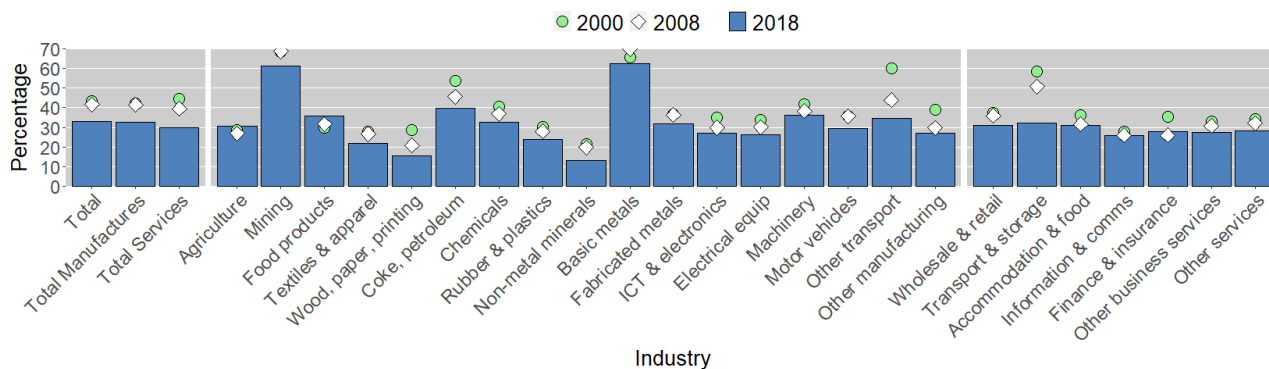


Figure 3b. Norway - industry share of domestic and foreign value-added content of gross exports
As a percent of total gross exports, 2018



Of the total value of Norway's imports of intermediate goods and services in 2018, 32.9% was subsequently embodied in exports, significantly below the OECD average of 47.9%, and below the share in 2008 (41.6%). The originating industries with the highest shares of intermediate imports used in Norway's exports were *Basic metals* (62.4%), *Mining and quarrying* (61.1%) and *Coke and refined petroleum products* (39.6%).

Figure 4. Norway - imported intermediate inputs used for exports, by industry-origin of imports
As a percent of intermediate imports, 2000, 2008 and 2018



Norway: international flows of goods and services, main players

In gross terms, the UK (18.4%), Germany (14.7%) and Sweden (9%) were the three most important Norwegian export market destinations in 2018. The top three final destinations for Norway's value added were the UK (14.2%), Germany (13.4%) and the United States (11%).

For imports in gross terms, Norway's top three partners in 2018 were Sweden (13.4%), the United States (8.6%) and Germany (7.6%), while in value-added terms, the top three were Sweden (10.6%), the United States (10.1%) and Germany (8.2%).

Figure 5 Norway - exports and imports: main partners
As a percent of total gross and value-added exports and imports, 2018

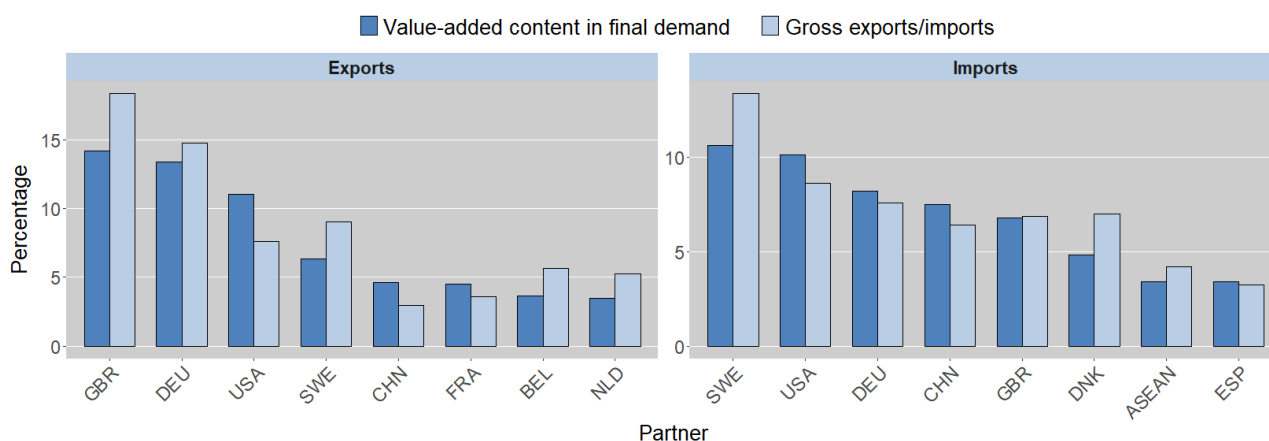
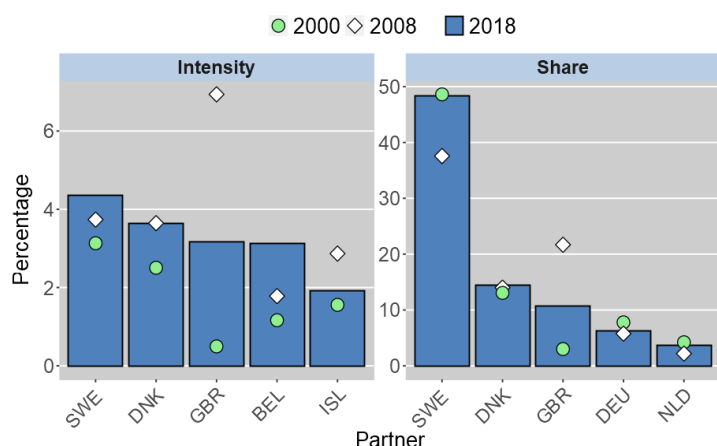


Figure 6. Norway's domestic value-added content of manufactured imports, top 5 partners
As a share of total Norway's value added embodied in Norway's imports (right) and as a percent of total imports by partner (left)



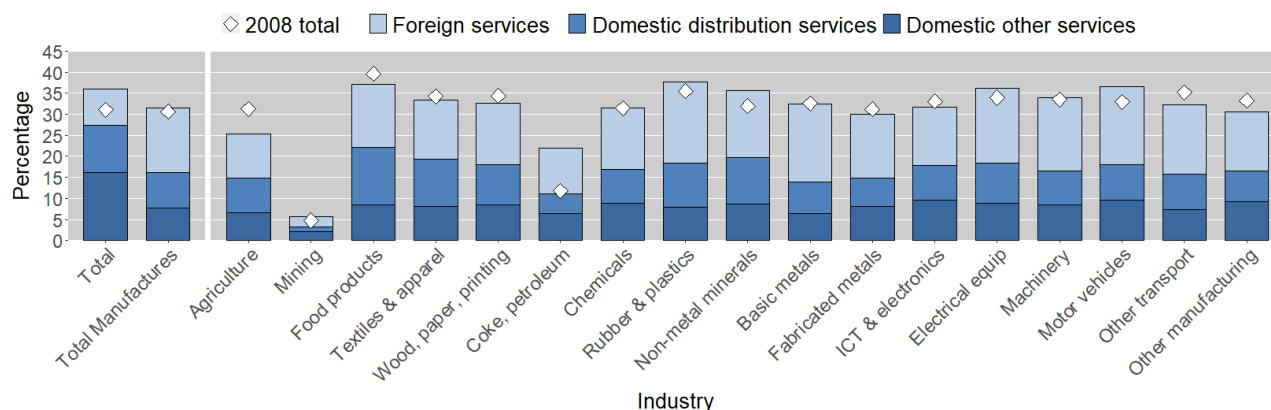
In 2018, the highest shares of Norway's domestic value added embodied in Norway's manufactured imports (Figure 6, right) came from Sweden (48.4%), Denmark (14.5%) and the UK (10.8%).

The trading partners with the highest shares of Norway's value added in their exports of manufactures to Norway (Figure 6, left) in 2018 were Sweden (4.4%), Denmark (3.6%) and the UK (3.2%).

The importance of services in international trade

Services are a significant contributor to Norway's economy, accounting for 36% of Norway's gross exports in 2018 (Figure 7) - significantly below the OECD average of 55.7%. Foreign services contributed 8.6% to the value of total gross exports. For manufactures, services value-added content was 31.6% of gross exports, with the highest shares in *Rubber and plastics products* (37.7%), *Food and beverages* (37.1%) and *Motor vehicles* (36.6%).

Figure 7. Norway - services content of gross exports
As a percent of gross exports by industry, 2018



Further information is available to supplement this country note:

- ▶ Access the data at: <http://oe.cd/tiva>
- ▶ Guide to TiVA 2021 Country Notes: www.oecd.org/sti/ind/tiva-2021-guide-to-country-notes.pdf
- ▶ TiVA indicators are based on the 2021 version of ICIO tables: <http://oe.cd/icio>
- ▶ Related indicators of Trade in Employment <http://oe.cd/io-emp> and Trade in Embodied CO2 <http://oe.cd/io-co2>
- ▶ Trade policy implications of global value chains: <http://www.oecd.org/trade/topics/global-value-chains-and-trade/documents/trade-in-value-added-2021.pdf>

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