

TRADE IN VALUE ADDED: KOREA

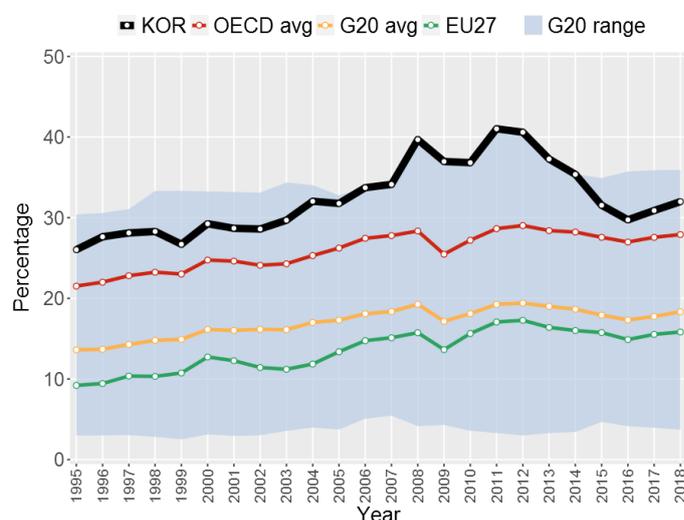
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Trade in Value Added (TiVA) indicators offer new insights into the commercial relations among economies and provide a broad view of where value is created along each stage of global value chains (GVCs). Painting a more complete picture than gross trade 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 Korea, with a view to informing policy making for a range of areas including trade, innovation, and investment.

Key findings

- ▶ The foreign value-added content of Korea's exports significantly declined between 2008 and 2018, from 39.7% to 32%. Nevertheless, this level was higher than the OECD average of 27.9%, and remained the second highest in the G20 (Figure 1). Foreign value added decreased in all manufacturing industries between 2008 and 2018, except for *Coke and refined petroleum products* (Figure 3a).
- ▶ *ICT and electronics* was the most export-oriented industry in 2018 with 80.1% of domestic value added driven by foreign final demand (Figure 2). This was also the industry with the highest share of intermediate imports used in exports (64.3%), highlighting the high integration of Korea in global value chains.
- ▶ China remained Korea's most important trading partner in 2018, the destination for 32.9% of Korea's gross exports and the source of 19.3% of Korea's gross imports (Figure 5). Of Korea's domestic value-added content that returned in the form of manufactured imports in 2018, 45% arrived via China, a higher share than in 2008 (Figure 6).
- ▶ Southeast Asia was the second largest export destination of Korea's gross exports but the European Union is a more important partner in value-added terms (Figure 5). This is the result of Korean value-added content arriving in the EU indirectly, via Korean exports to other economies.
- ▶ The services content of Korea's gross exports remained low in 2015 (35.9%), slightly lower than a decade earlier and below the OECD average of 55.7%. For manufacturers, services value added accounted for 26.3% of gross exports in 2018 (Figure 7).

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



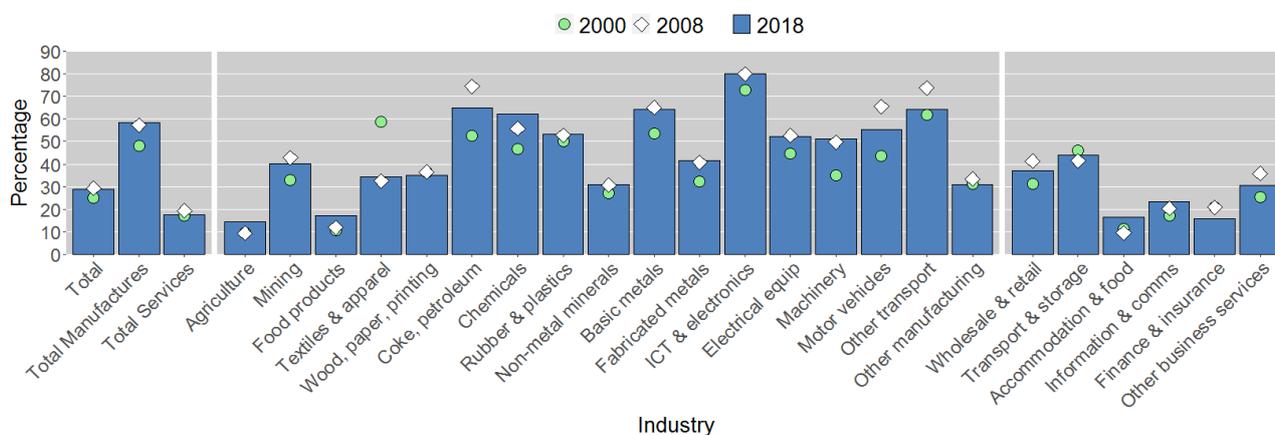
At the global level, the new TiVA indicators confirm that there has been a slowdown in GVC integration since the Financial Crisis in 2008-2009 (Figure 1). However, in general, foreign value added in trade increased between 2016 and 2018.

Between 2008 and 2018, the foreign content of Korea's exports is estimated to have decreased from 39.7% to 32% - above the OECD average of 27.9%. Compared to 2008, the foreign content of exports in 2018 was 7.7 percentage points lower.

The role of foreign final demand in domestic production

Overall, in 2018, 29% of Korea's domestic value added was driven by foreign final demand, down from 29.2% in 2008. By industry, the shares ranged from *ICT and electronics* (80.1%) and *Coke and refined petroleum products* (64.9%) at the higher end to *Agriculture, forestry and fishing* (14.3%) at the lower end.

Figure 2. Korea - 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 *Coke and refined petroleum products* (74.4%), *Basic metals* (41.6%) and *Chemicals and pharmaceuticals* (40%). *ICT and electronics* generated the greatest source of domestic value-added content of exports in 2018, accounting for 20.9% of gross exports (Figure 3b), followed by *Motor vehicles* (6.3%) and *Chemicals and pharmaceuticals* (6%). The most foreign content in total exports came from *ICT and electronics* (7.8%).

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

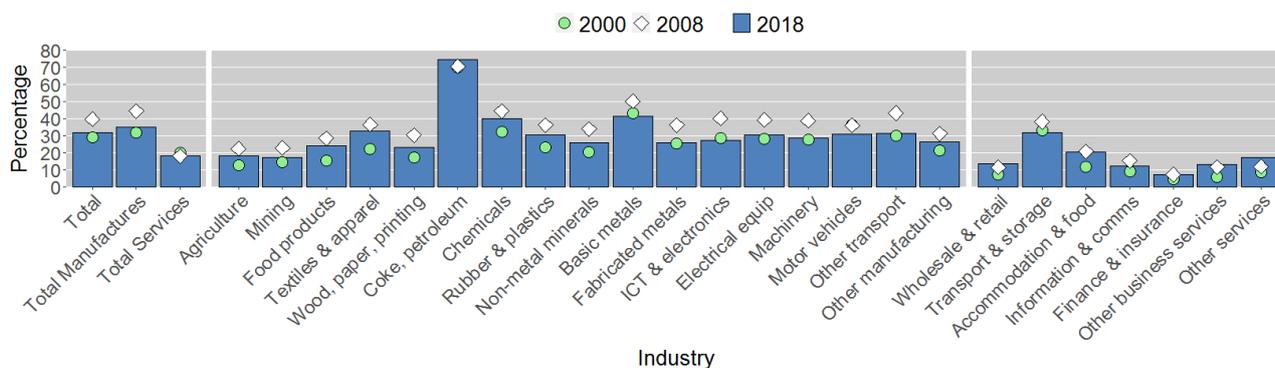
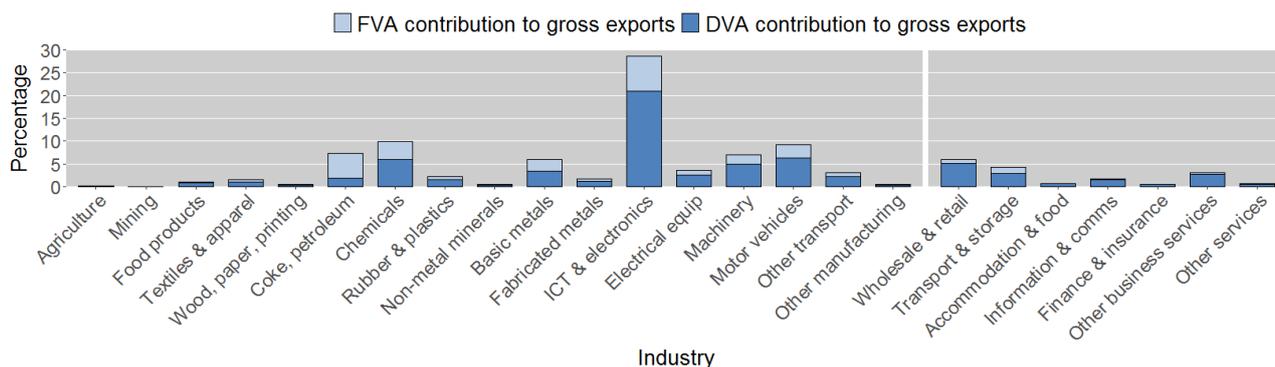
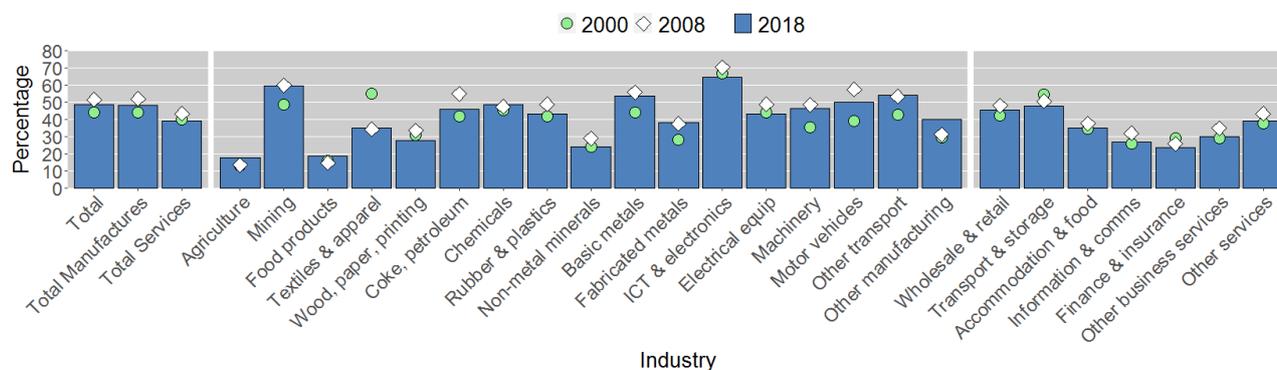


Figure 3b. Korea - industry share of domestic and foreign value-added content of gross exports
As a percent of total gross exports, 2018



Of the total value of Korea's imports of intermediate goods and services in 2018, 48.6% was subsequently embodied in exports, close to the OECD average of 47.9%, and below the share in 2008 (51.4%). The originating industries with the highest shares of intermediate imports used in Korea's exports were *ICT and electronics* (64.3%), *Mining and quarrying* (59.4%), and *Other transport equipment* (54.1%).

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

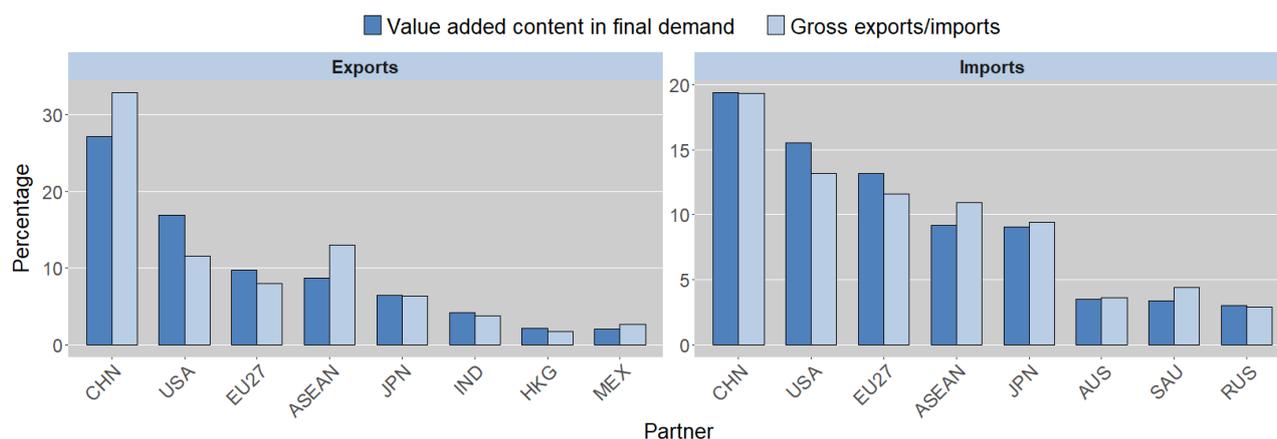


Korea: international flows of goods and services, main players

In gross terms, China (32.9%), Southeast Asia¹ (13%) and the United States (11.6%) were the three most important Korean export market destinations in 2018. The top three final destinations for Korea's value added were China (27.2%), the United States (16.9%) and the European Union (9.8%).

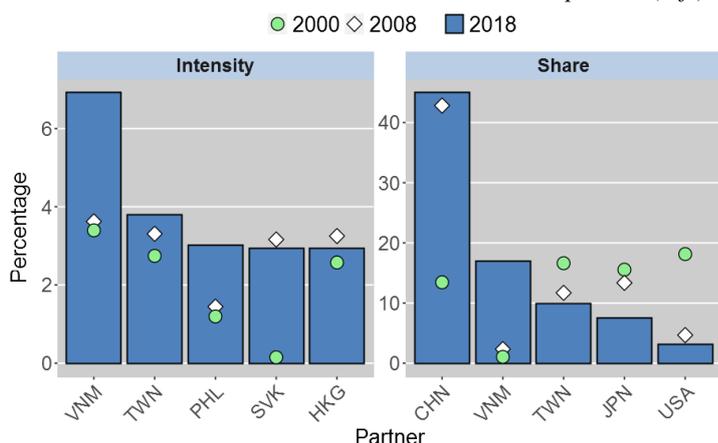
For imports in gross terms, Korea's top three partners in 2018 were China (19.3%), the United States (13.2%) and the European Union (11.6%), while in value-added terms, the top three were China (19.4%), the United States (15.5%) and the European Union (13.2%).

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



¹ Southeast Asia refers to the ASEAN group of countries.

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



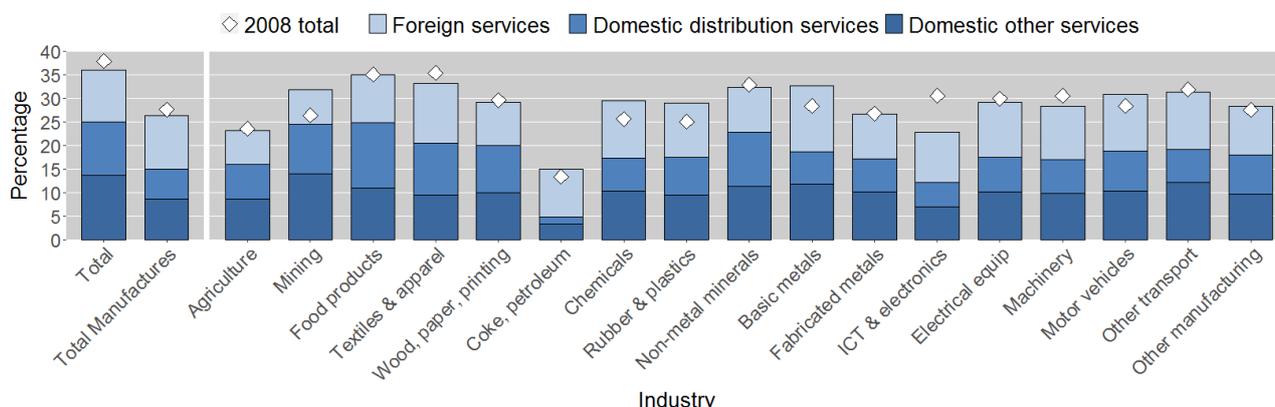
In 2018, the highest shares of Korea's domestic value added embodied in Korea's manufactured imports (Figure 6, right) came from China (45%), Viet Nam (16.9%) and Chinese Taipei (9.9%).

The trading partners with the highest shares of Korea's value added in their exports of manufactures to Korea (Figure 6, left) in 2018 were Viet Nam (6.9%), Chinese Taipei (3.8%) and the Philippines (3%).

The importance of services in international trade

Services are a significant contributor to Korea's economy, accounting for 35.9% of Korea's gross exports in 2018 (Figure 7) - significantly below the OECD average of 55.7%. Foreign services contributed 10.9% to the value of total gross exports. For manufactures, services value-added content was 26.3% of gross exports, with the highest shares in *Food and beverages* (35.1%), *Textiles and apparel* (33.3%) and *Basic metals* (32.6%).

Figure 7. Korea - 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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