

## TRADE IN VALUE ADDED: GREECE

The international fragmentation of production in global value chains (GVCs) challenges the way we look at the global economy. Today, “what you do” - the activities a firm or country is involved in - matters more for growth and employment than “what you sell” - the products that make up final sales or exports.

Understanding how GVCs work and how they affect economic performance is essential, as is determining which policies help derive the greatest benefits, and reduce the risks. The OECD-WTO Trade in Value Added (TiVA) database facilitates analysis of GVCs by measuring trade in value-added terms to generate new insights about the commercial relations among economies and the process of value creation. Drawing on the third version of the TiVA database, this note describes Greece’s trade patterns in value-added terms, with a view to informing policy debates in a range of areas, including trade, innovation, and investment.

Accompanying this note is a User Guide designed to assist interpretation and provide context to the indicators presented: [http://www.oecd.org/sti/ind/TiVA\\_2015\\_Guide\\_to\\_Country\\_Notes.pdf](http://www.oecd.org/sti/ind/TiVA_2015_Guide_to_Country_Notes.pdf)

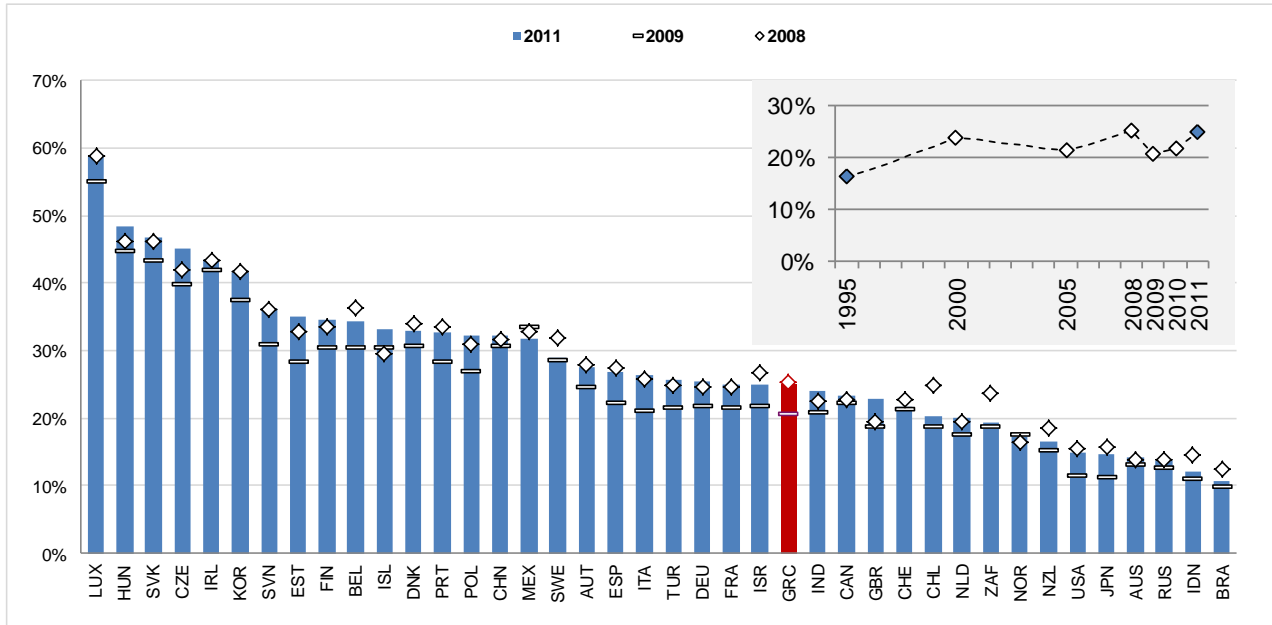
### Key findings

- The foreign content of Greece's exports increased to 24.9% in 2011, higher than the crisis low of 20.7% in 2009 but remains below the pre-crisis high of 25.3% in 2008. It is amongst the lowest for similar sized economies.
- Direct exports of transportation services characterise Greek exports with the export orientation of manufacturers (less than one-third) being among the lowest in the OECD and the lowest among similar sized OECD economies.
- Close to two-thirds (64.9%) of Greece’s exports reflected services content in 2011, amongst the highest (sixth) in the OECD, but the upstream contribution to manufacturers (6<sup>th</sup> lowest) was below the OECD average.

## The role of foreign and domestic value added in exports

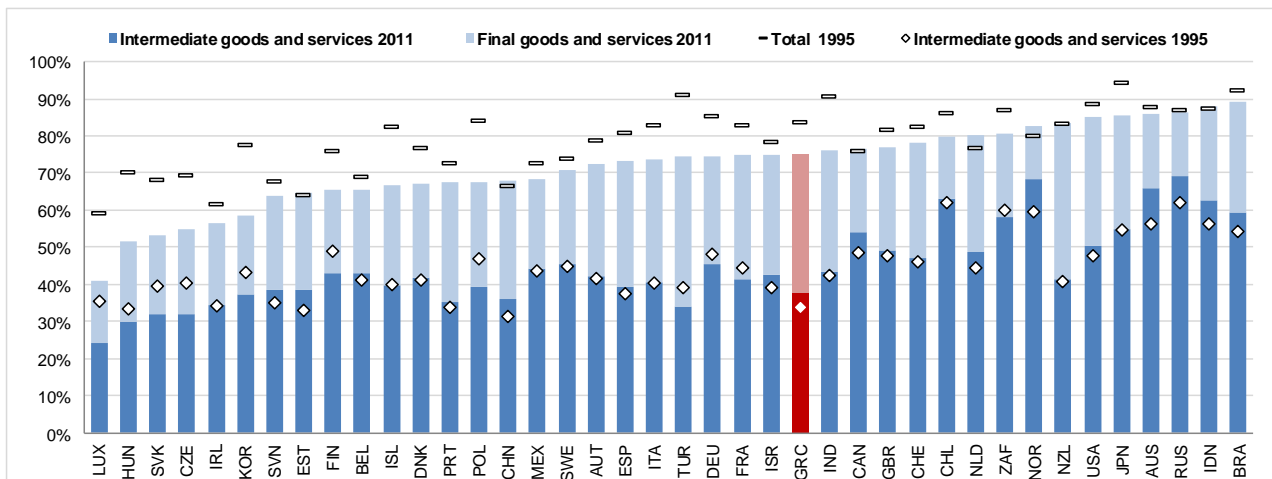
The foreign content of Greece's exports increased to 24.9% in 2011, higher than the crisis low of 20.7% in 2009 but this remains lower than the pre-crisis high of 25.3% in 2008 (Figure 1). The foreign content of Greek exports has increased 8.6 percentage points since 1995.

**Figure 1. Foreign value added content of gross exports by country**  
percent, 2008, 2009, and 2011 (right insert = time series for Greece)



Of Greece's total exports of domestic value-added in 2011, 50.0% reflected exports of intermediates, significantly higher than in 2009 (42.8%) in part reflecting the rebound in GVCs which were disproportionately affected by the crisis, and also higher than 1995 (40.4%), (Figure 2). Greece's share of intermediates in total exports of domestic value added was below the OECD average of 61.5%.

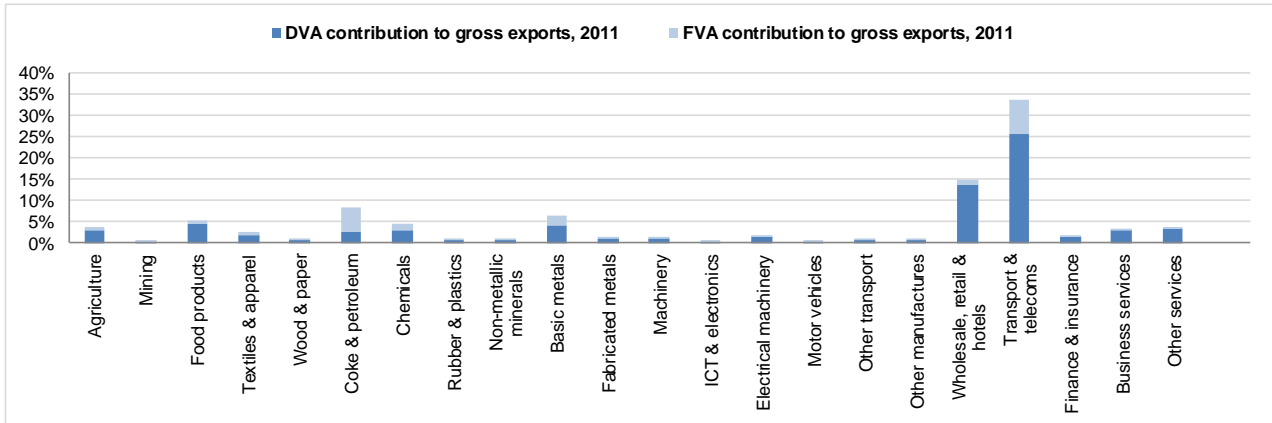
**Figure 2. Domestic value added content of gross exports by end-use category by country**  
percent, 1995 and 2011



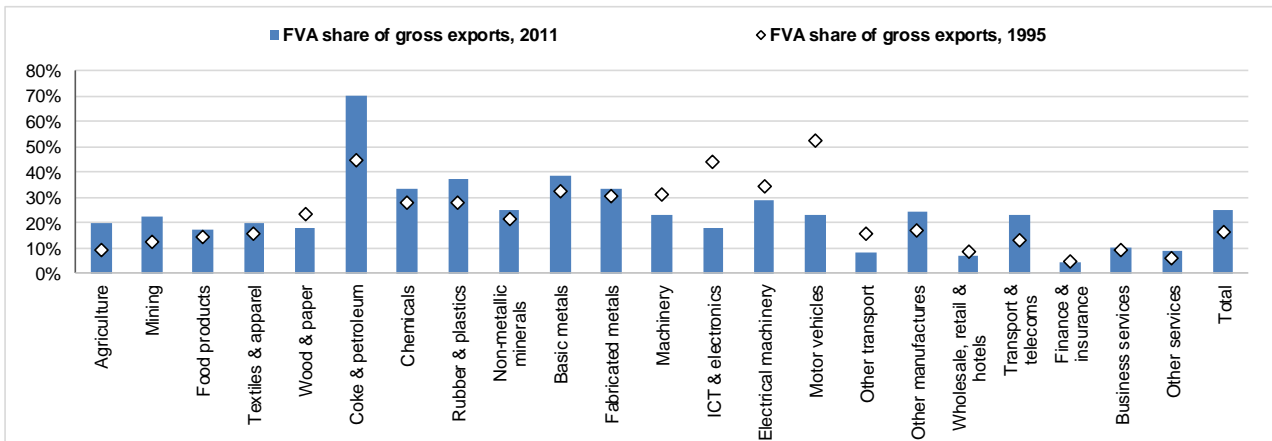
Direct exports by the Transport & telecoms industry generated a large share (both direct and upstream) of domestic value added in 2011, accounting for over one-quarter (25.7%) of the total value added of exports. The next three most important industries were Wholesale, retail & hotels (13.8%, reflecting tourism and upstream distribution services to exporters), Food products (4.4%), and Basic metals (4.0%), (Figure 3a). The largest foreign contributions were in the Transport & telecoms and Coke & petroleum industries, which together contributed 13.9% of Greece's total exports.

The three industries with highest foreign value added shares in Greece's exports in 2011 were Coke & petroleum, Basic metals, and Rubber & plastics, with 69.9%, 38.6% and 37.5% respectively, compared to 44.5%, 32.7% and 28.0% in 1995 (Figure 3b).

**Figure 3a. Greece's industry share of domestic and foreign value content of gross exports**  
percent of total gross exports, 2011

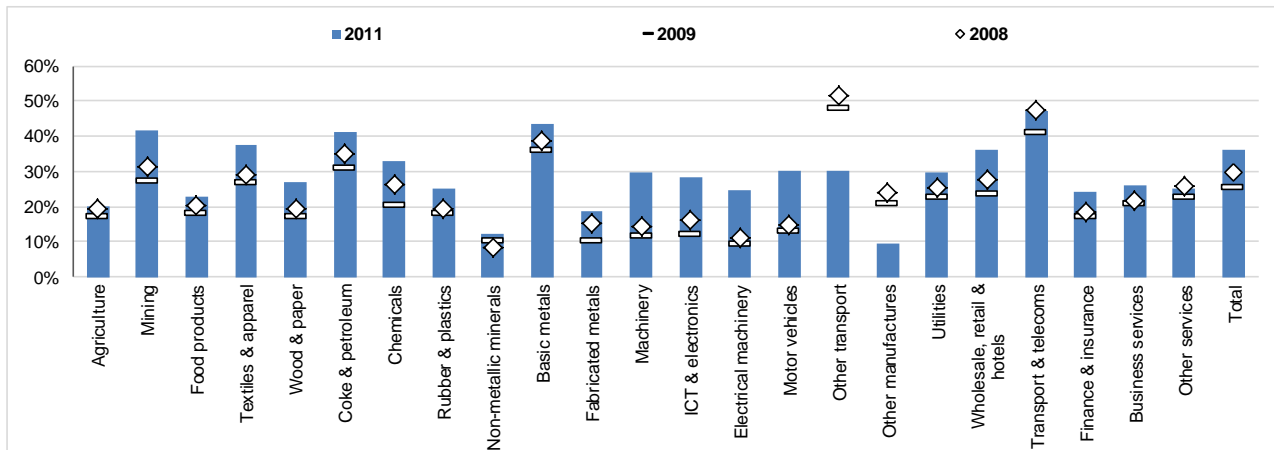


**Figure 3b. Greece's foreign value added content of gross exports**  
1995 and 2011



Of the total value of Greece's imports of intermediate products and services, 36.3% was subsequently embodied in exports, lower than the OECD average (39.3%) (Figure 4) but significantly higher than in 2009 (25.6%); partly reflecting compositional effects in export shares. The products with the highest shares were Transport & telecoms, Basic metals and Mining, at 47.4%, 43.7% and 41.5% respectively.

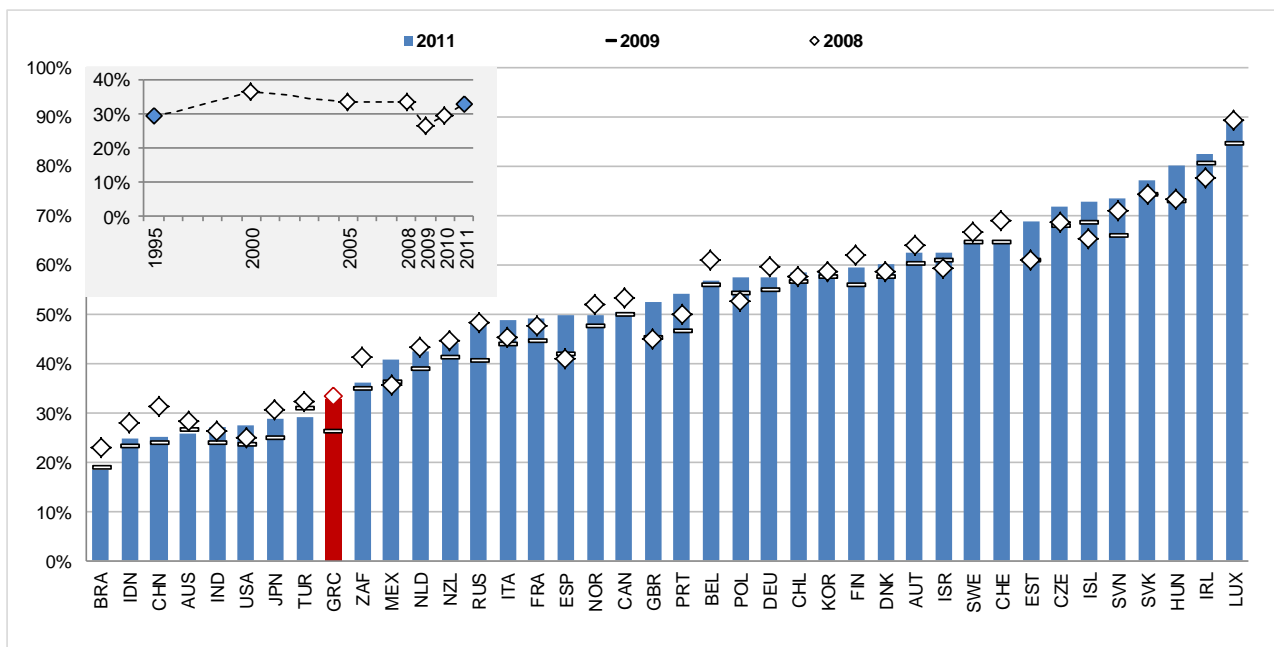
**Figure 4. Greece's imported intermediate inputs used for exports, by import category**  
percent of intermediate imports, 2008, 2009, and 2011



### The destination of domestic value added produced in Greece

Of the total domestic value added produced by the manufacturing sector in Greece, 32.9% reflected foreign final demand in 2011, higher than the equivalent figure in 2009 (26.3%) but lower than in 2008 (33.3%) (Figure 5). This is low compared to similar sized economies and below the OECD average (41.9%).

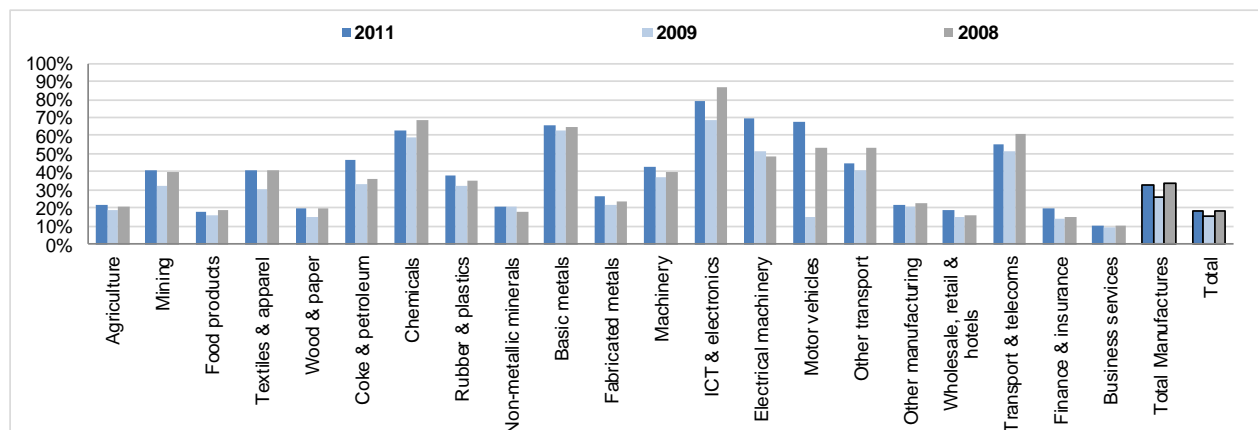
**Figure 5. Manufacturing domestic value added in foreign final demand by country,**  
percent of total manufacturing value added, 2008, 2009, and 2011 (left insert = time series for Greece)



Note: Final demand excludes inventories: See also [http://www.oecd.org/sti/ind/TiVA\\_2015\\_Guide\\_to\\_Country\\_Notes.pdf](http://www.oecd.org/sti/ind/TiVA_2015_Guide_to_Country_Notes.pdf)

At the total economy level, 18.1% of Greece's domestic value added was driven by foreign final demand, but significant differences exist across industries. ICT & electronics (78.6%) and Electrical machinery (69.7%) had the highest level of export orientation in Greece, with the lowest shares in Business services (9.9%) and Food products (18.0%) (Figure 6).

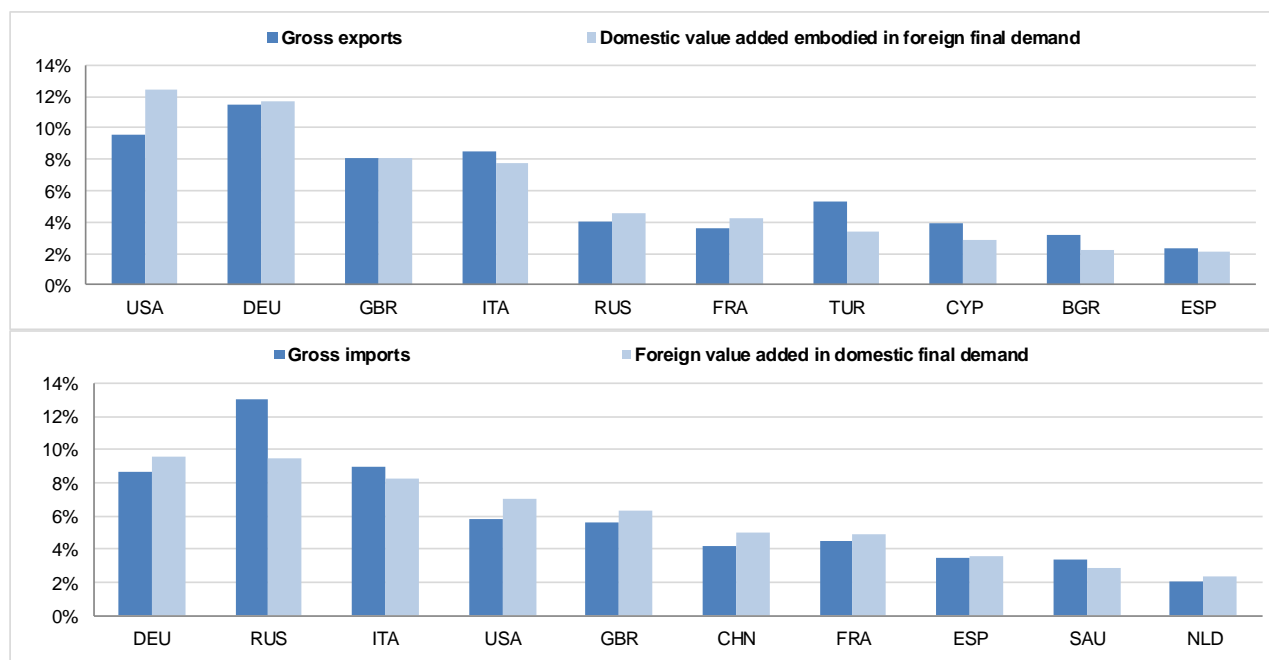
**Figure 6. Greece's domestic value added in foreign final demand, percent of value added by industry, 2008, 2009, and 2011**



Note: Final demand excludes inventories: See also [http://www.oecd.org/sti/ind/TIVA\\_2015\\_Guide\\_to\\_Country\\_Notes.pdf](http://www.oecd.org/sti/ind/TIVA_2015_Guide_to_Country_Notes.pdf)

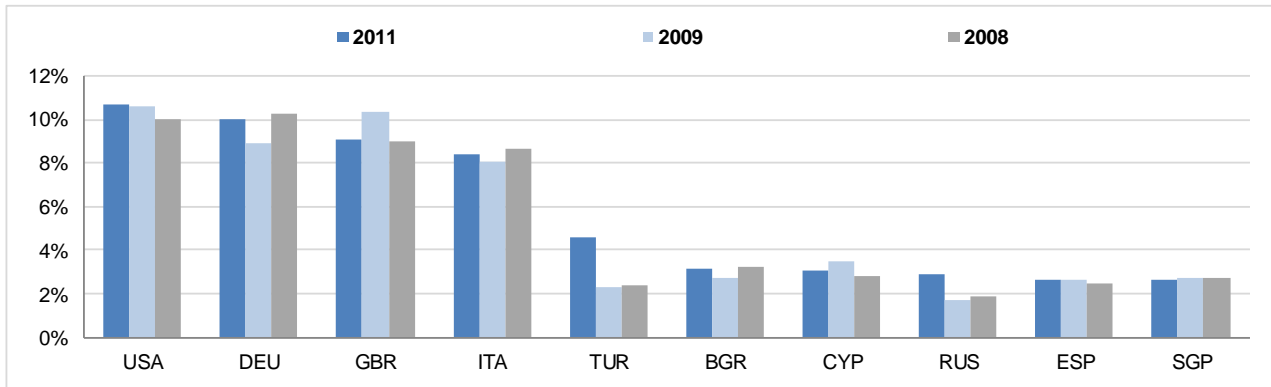
In gross terms, Germany (11.5%), the United States (9.6%) and Italy (8.5%) were the three most important Greek export market destinations. In value-added terms, the United States (12.4%) displaced Germany (11.8%) in top spot, (Figure 7, top). For imports, Greece's top three partners were Russia (13.1%), Italy (9.0%) and Germany (8.7%), while in value-added terms Germany (9.6%) was the most important source with Russia (9.5%) dropping to second, largely reflecting Russian value-added (particularly in oil and gas) embodied in Greek exports (Figure 7, bottom).

**Figure 7. Greece's exports to and imports from main partner countries percent of total gross and value added exports and imports, 2011**



Looking only at exports of intermediate goods and services, Greece's major export destinations in 2011 were the United States (10.6%), Germany (10.0%), the United Kingdom (9.1%) and Italy (8.4%), (Figure 8).

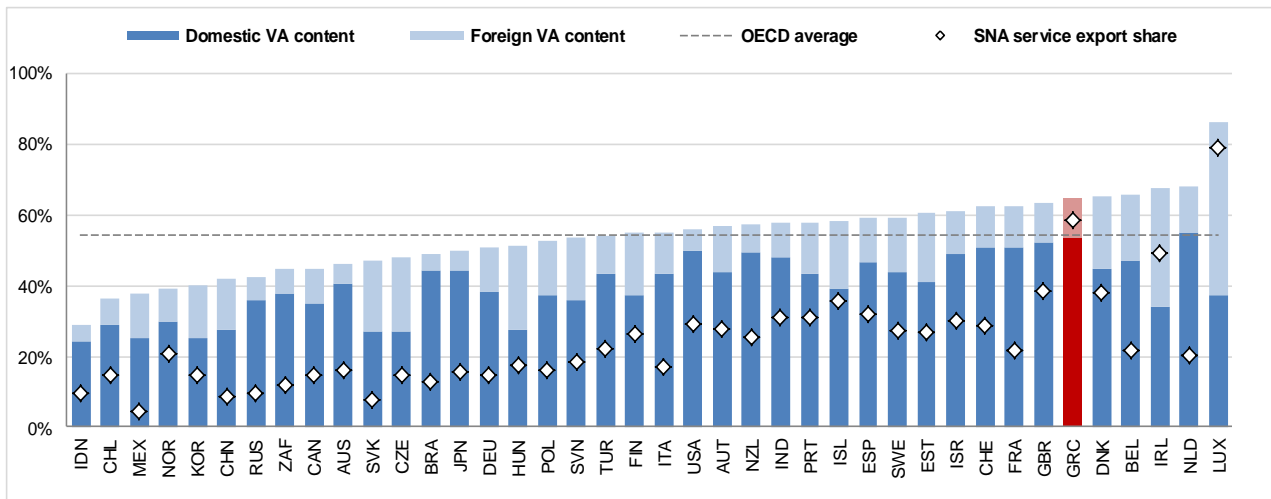
**Figure 8. Greece's domestic value added embodied in intermediate exports to main partner countries**  
percent of total intermediate exports, in value added terms, 2008, 2009, and 2011



### The importance of services

In 2011 the services content of total exports in Greece was 64.9%, significantly above the OECD average of 54.3%, (Figure 9).

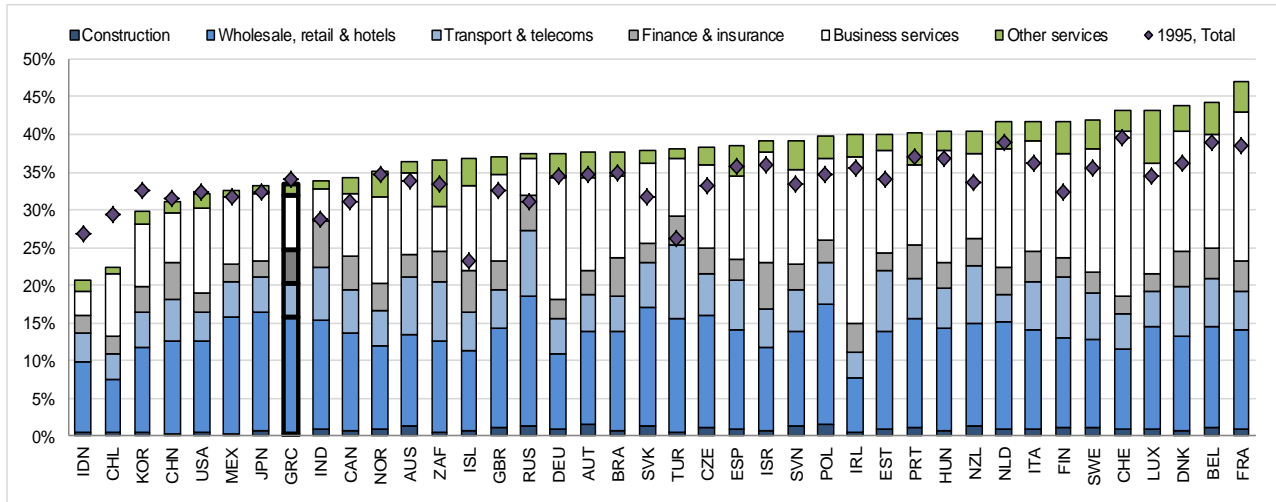
**Figure 9. Services content of gross exports by country, gross and value-added terms,**  
percent of total gross exports, 2011



Note: SNA services export shares include re-exports in the denominator, and include any actual differences in free on board and basic prices (the distribution margin provided by resident distributors to resident exporters) in goods.

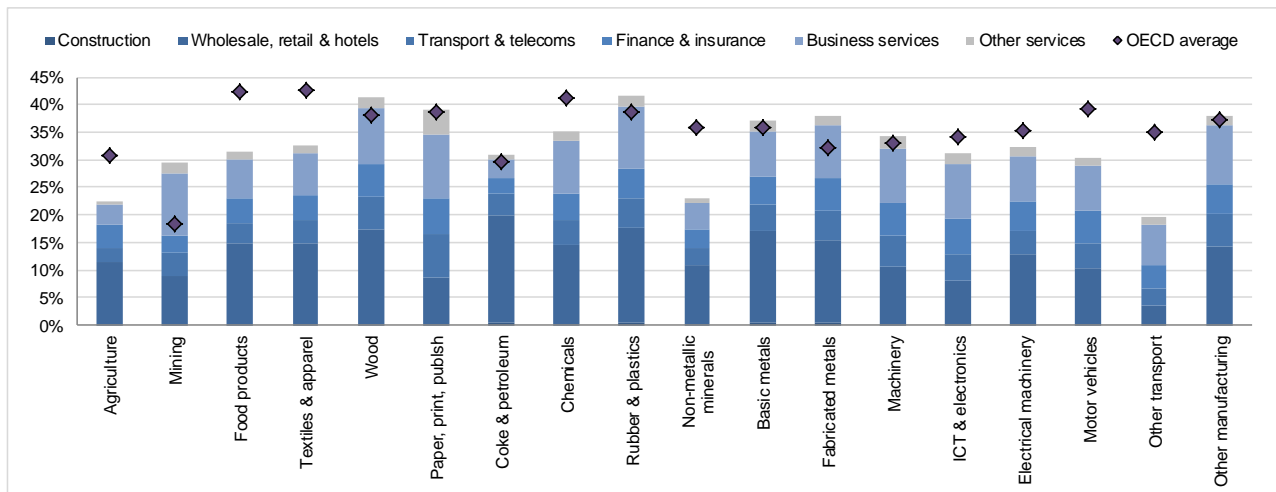
For exports of manufactured goods alone, 33.5% of the total value reflected services sector value-added, below the OECD average (36.9%) and the lowest among similar sized economies. Of this share, the Wholesale, retail & hotels sector accounted for 15.5% of total gross exports, with Business services and Finance & insurance accounting for 7.3% and 4.5% respectively (Figure 10).

**Figure 10. Services value added embodied in manufacturing exports, by country, percent of total gross exports, 1995 and 2011**



At the individual sectoral level, the services content of exports was below the OECD average in a number of industries. The highest shares were in Rubber & plastics (41.6%), Wood (41.3%) and Paper, print & publishing (39.0%), (Figure 11).

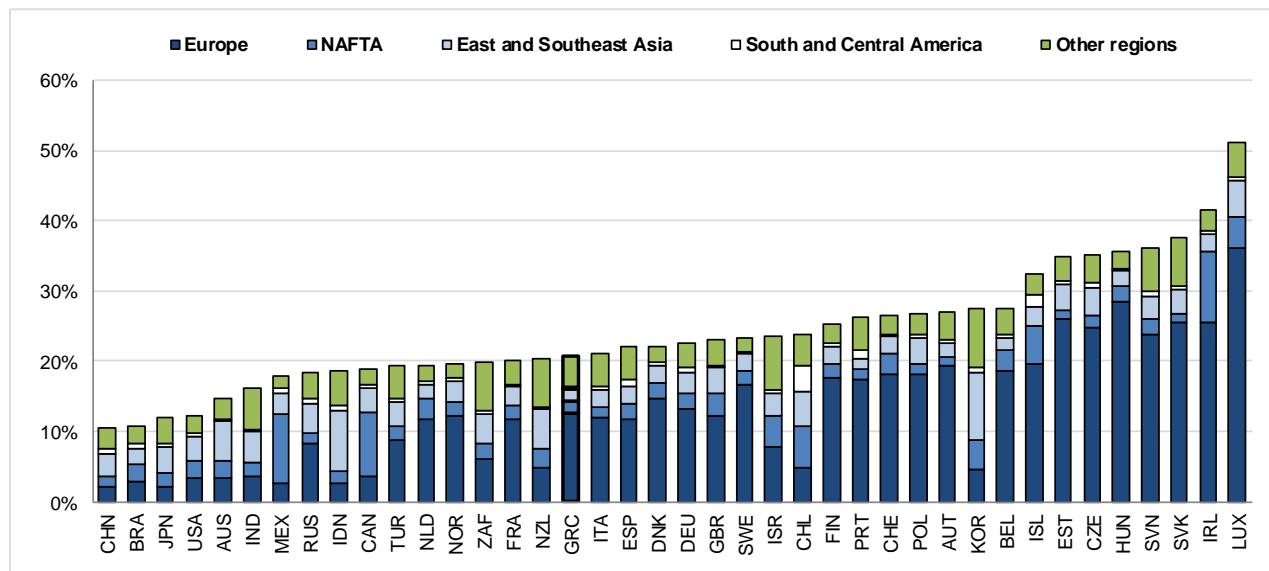
**Figure 11. Greece's Services content of gross exports, by exporting industry and service category percent of gross exports by industry 2011**



## The origin of domestic consumption

In 2011, 20.8% of Greece's total final domestic consumption reflected foreign content, of which Europe contributed 12.5 percentage points, NAFTA 1.7 pp, East and Southeast Asia 1.8 pp, South and Central America 0.3 pp and other regions 4.5 pp (Figure.12).

Figure 12. Foreign value added content of domestic consumption by country  
by source region, 2011



### Further Information

The information included in this note is based on the 2015 edition of the Trade in Value Added (TIVA) database.

» Access the data at <http://oe.cd/tiva>

» Please contact us with your questions at [tiva.contact@oecd.org](mailto:tiva.contact@oecd.org)