TRADE IN VALUE ADDED: SWITZERLAND

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 Switzerland'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

Key findings

- With a foreign content share of exports of just over one-fifth (21.7%) in 2011, Switzerland was amongst the lowest of similar sized economies, reflecting in large part a relatively high specialisation in services, which typically have a low foreign content.

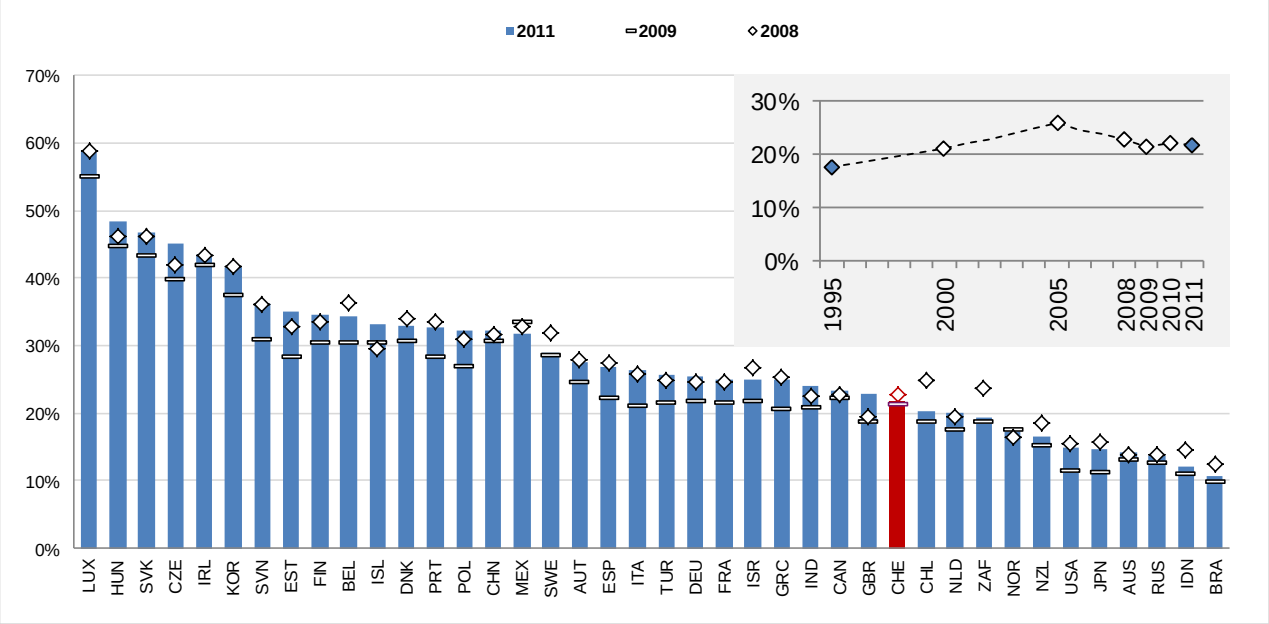
- Switzerland had the ninth highest services content of total exports in 2011 (62.5%) but an even higher ranking (fifth) when looking at Switzerland's services content of manufacturing exports (43.2%).

- In gross terms Germany (with 19.0% of total exports) was Switzerland's number one export market but in value added terms it was the United States with 16.1%, compared to 15.3% for Germany.

The role of foreign and domestic value added in exports

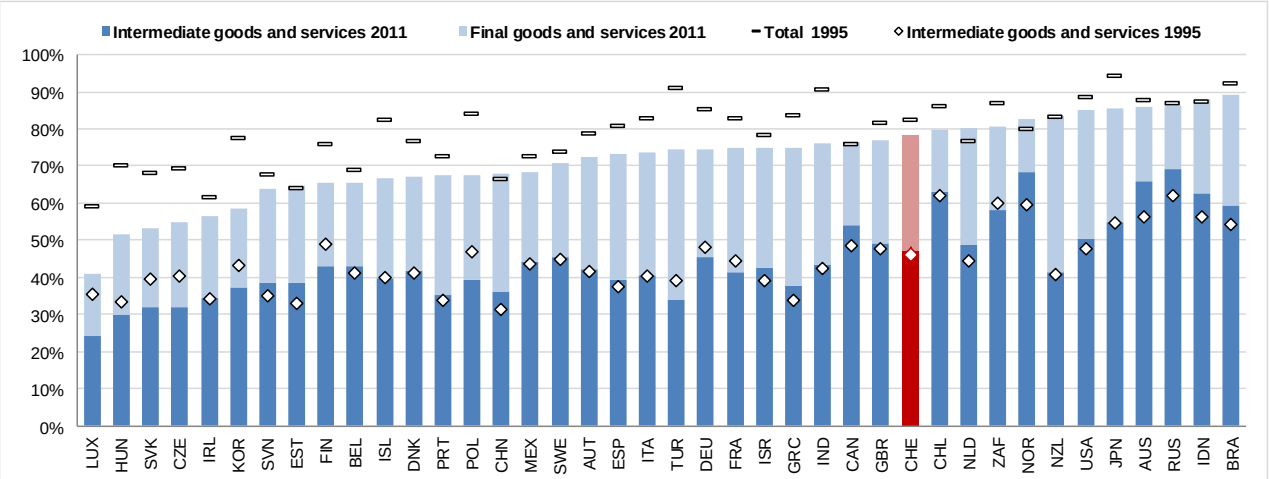
The foreign content of Switzerland's exports increased to 21.7% in 2011, marginally higher than in 2009 (21.3%), although below 2008 (22.7%) (Figure 1), and below 2005 in particular. The foreign content of Swiss exports has increased 4.2 percentage points since 1995.

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



Of Switzerland's total exports of domestic value-added in 2011, 60.3% reflected exports of intermediates, higher than in 2009 (56.0%), in part reflecting the rebound in GVCs that were disproportionally affected by the crisis, and also higher than in 1995 (55.8%), (Figure 2). This was marginally below the OECD average (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 Chemicals industry generated the greatest source (both direct and upstream) of domestic value added in 2011, accounting for 16.9% of the total value added of exports. The next three most important industries were Finance & insurance (16.0%), Wholesale, retail & hotels (11.3%, partly reflecting tourism and upstream distribution services) and ICT & electronics (7.9%) (Figure 3a). The largest foreign contributions were in the Chemicals and ICT & electronics industries, which together contributed 8.1% of Switzerland's total exports.

The foreign content of exports increased across all sectors between 1995 and 2011. The three industries with highest foreign value added shares in Switzerland's exports in 2011 were Basic metals, Motor vehicles and Electrical machinery, with 46.2% 44.6% and 43.1% respectively, compared to 31.8%, 32.5% and 34.8% in 1995 (Figure 3b).

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

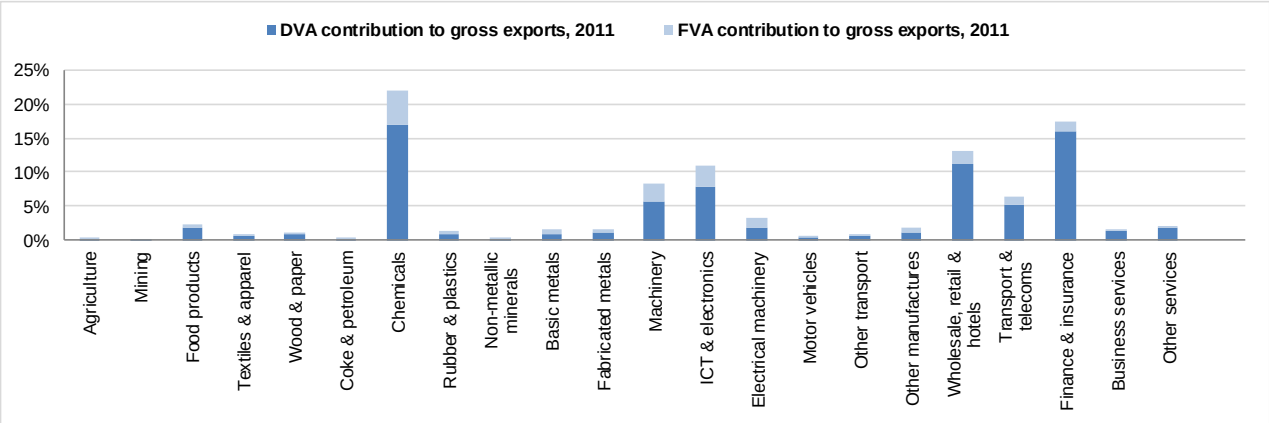
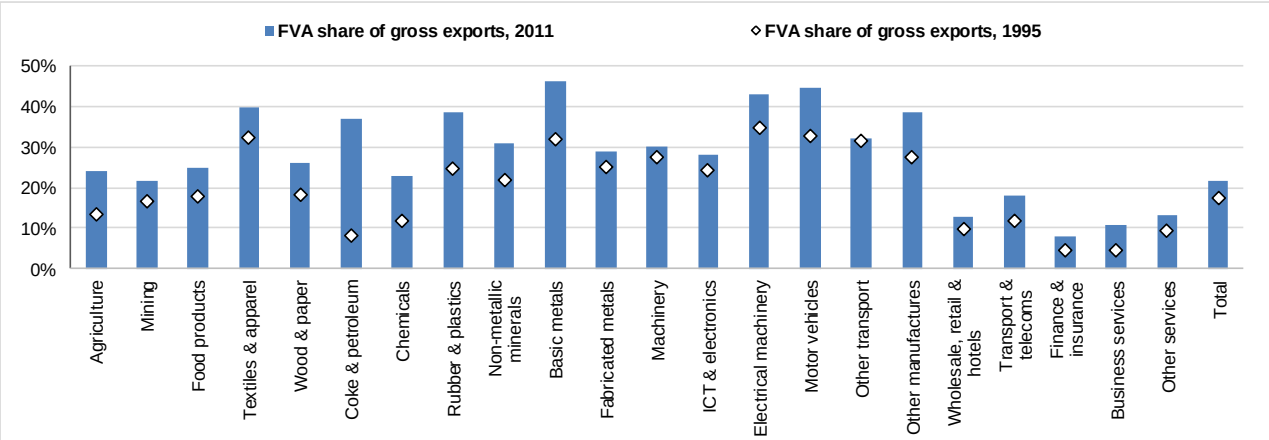
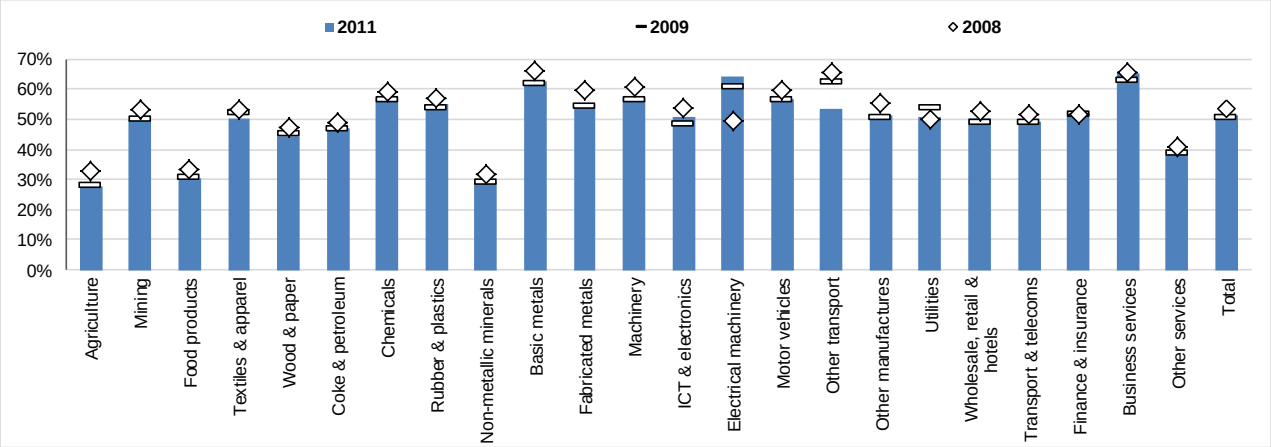


Figure 3b. Switzerland's foreign value added content of gross exports
1995 and 2011



Of the total value of Switzerland's imports of intermediate products and services, 51.6% was subsequently embodied in exports, above the OECD average (39.3%) and the 2009 share (50.8%) (Figure 4). The products with the highest shares were Business services (65.2%), Electrical machinery (64.4%) and Basic metals (62.8%).

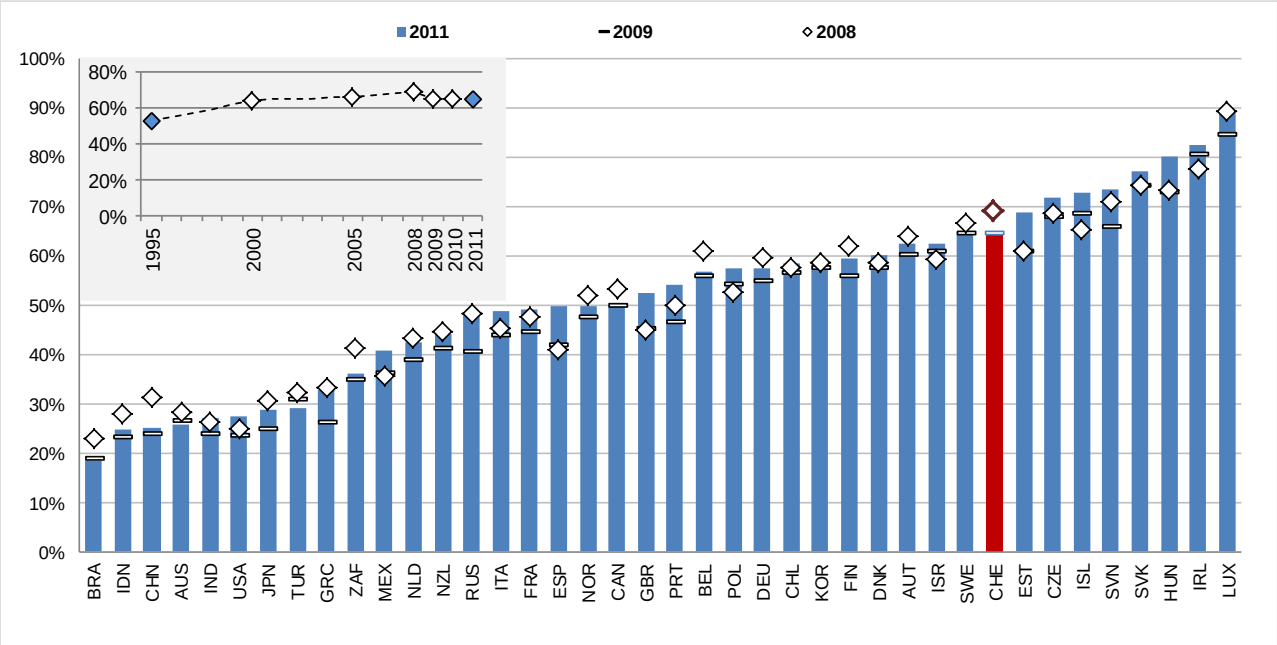
Figure 4. Switzerland's imported intermediate inputs used for exports, by import category
percent of intermediate imports, 2008, 2009, and 2011



The destination of domestic value added produced in Switzerland

Of the total domestic value added produced by the manufacturing sector in Switzerland, 64.8% reflected foreign final demand in 2011, higher than 2009 (64.6%) and the OECD average (41.9%) but below 2008 (68.8%) (Figure 5).

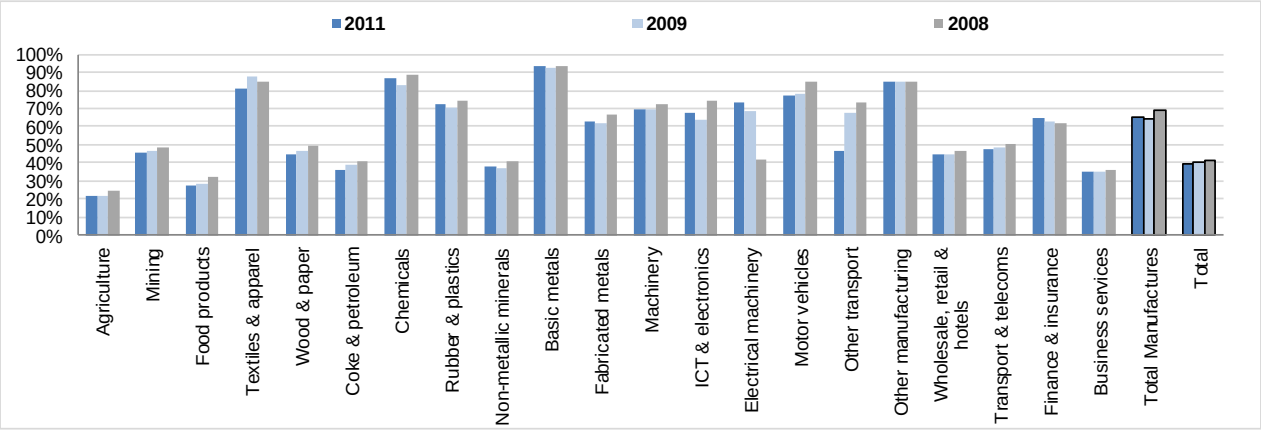
Figure 5. Manufacturing domestic value added in foreign final demand by country
percent of total manufacturing value added, 2008, 2009, and 2011 (left insert = time series for Switzerland)



Note: Final demand excludes inventories: See also http://www.oecd.org/sti/ind/TiVA_2015_Guide_to_Country_Notes.pdf

At the total economy level, 39.4 % of Switzerland's domestic value added was driven by foreign final demand, but significant differences exist across industries. Basic metals (93.1%) and Chemicals (87.2%) had the highest levels of export orientation in Switzerland, with the lowest in Agriculture (21.3%) and Food products (27.4%), (Figure 6).

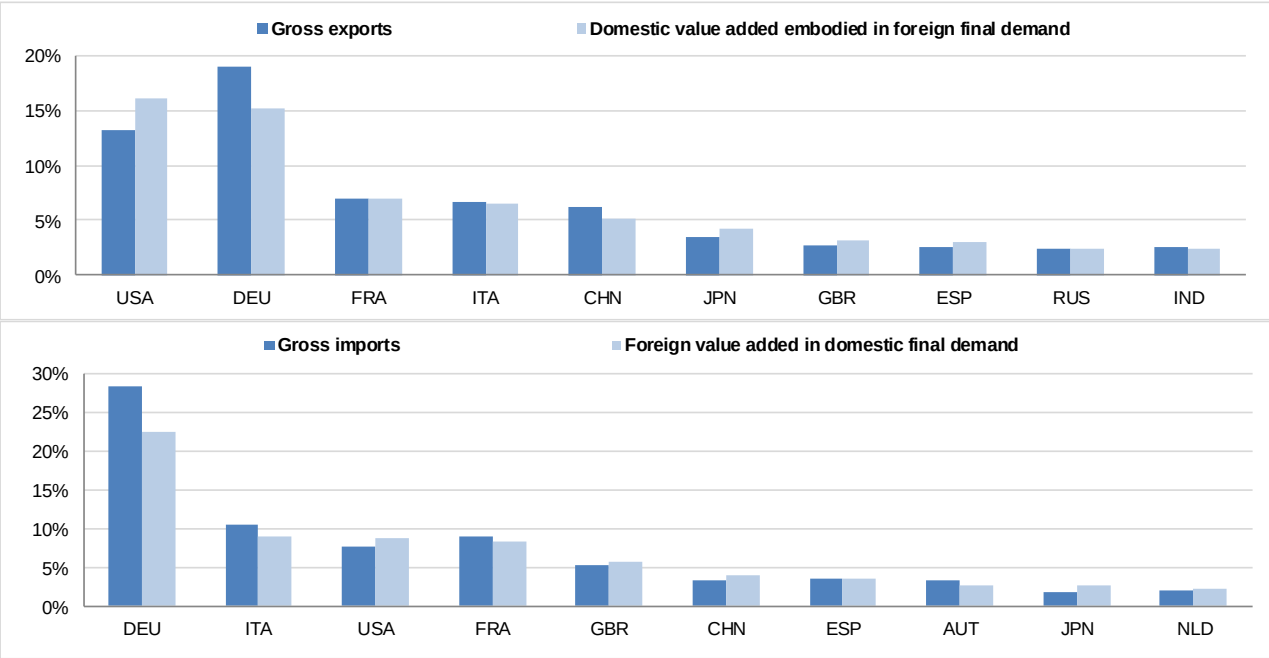
Figure 6. Switzerland's domestic value added in foreign final demand
percent of value added by industry, 2008, 2009, and 2011



Note: Final demand excludes inventories: See also http://www.oecd.org/sti/ind/TiVA_2015_Guide_to_Country_Notes.pdf

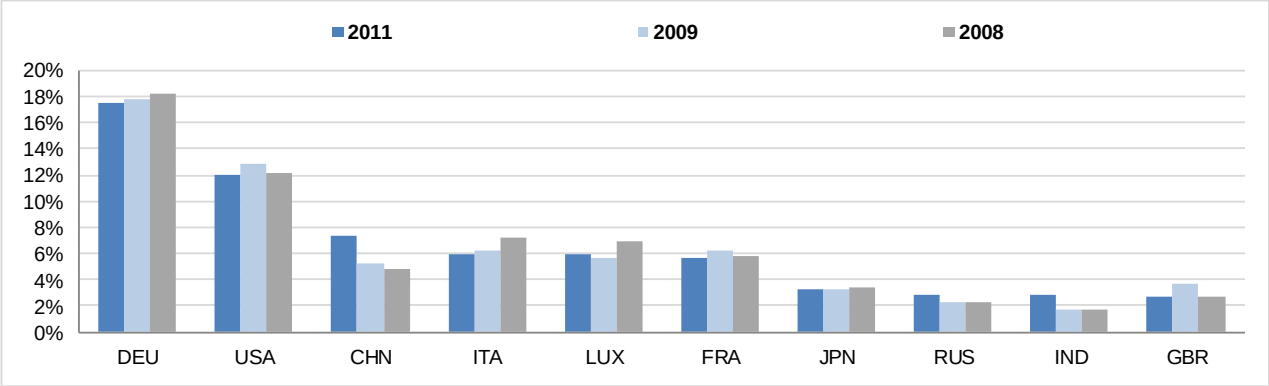
In gross terms, Germany (19.0%), the United States (13.2%) and France (7.0%) were the three most important Swiss export market destinations. In value-added terms, the United States (16.1%) replaced Germany (15.3%) in top place (Figure 7, top). For imports, Switzerland's top three partners were Germany (28.4%), Italy (10.4%) and France (9.0%), while in value-added terms they were Germany (22.5%), Italy (8.9%) and the United States (8.7%) (Figure 7, bottom).

Figure 7. Switzerland'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 in value-added terms, Switzerland's major export destinations in 2011 were Germany (17.5%), the United States (12.1%), China (7.3%) and Italy (5.9%) (Figure 8).

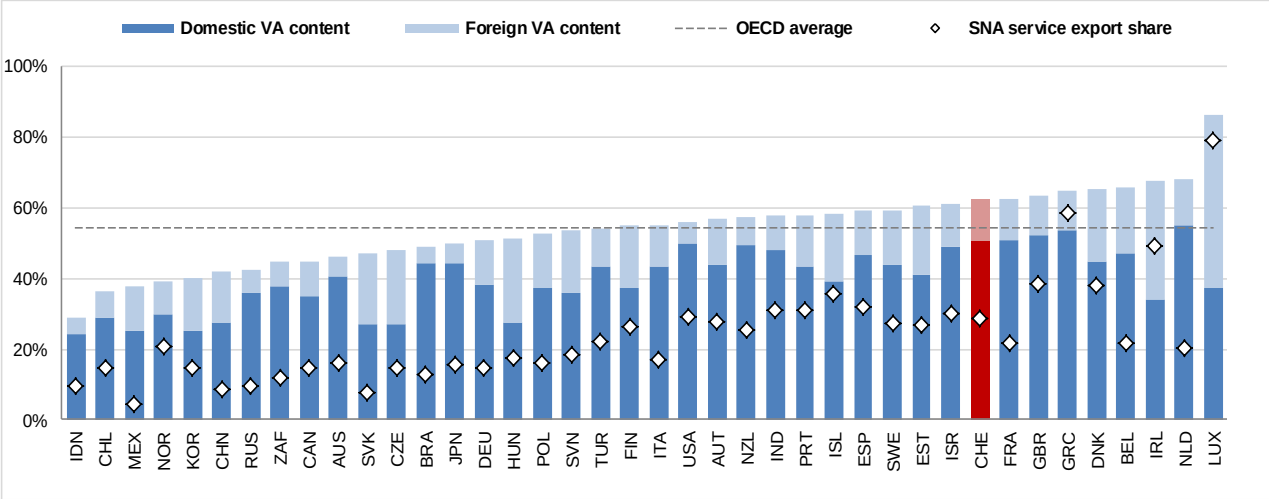
Figure 8. Switzerland's domestic value added embodied in intermediate exports to main partner countries
percent of total intermediate exports, in value added terms, 2008, 2009, and 2011



The importance of services

In 2011 the services content of total exports in Switzerland was 62.5%, above the OECD average of 54.3% (Figure 9).

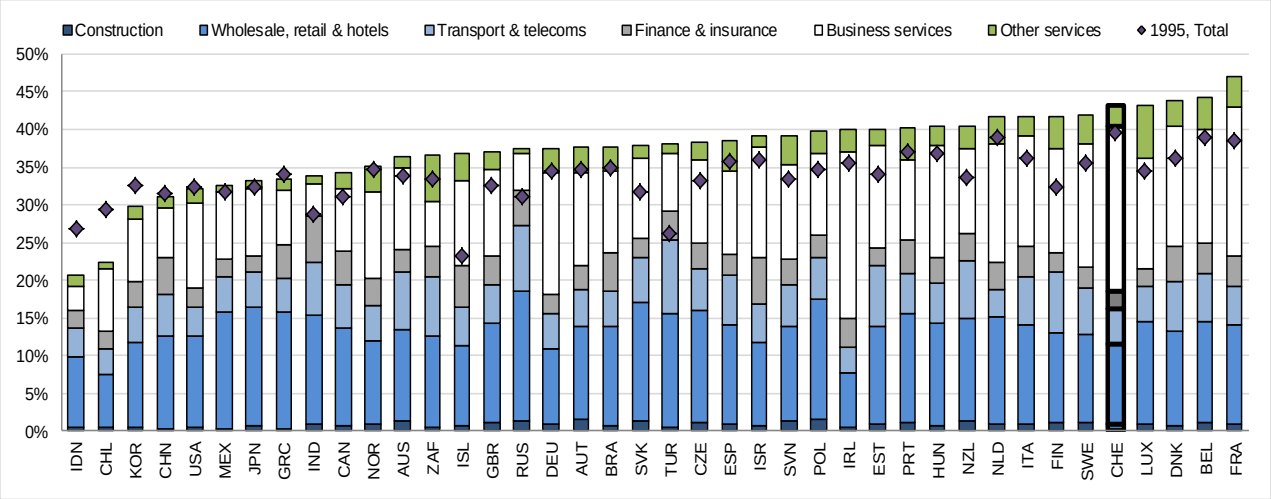
Figure 9. Services content of gross exports by country, gross and value-added terms
percent of total gross exports, 2011



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.

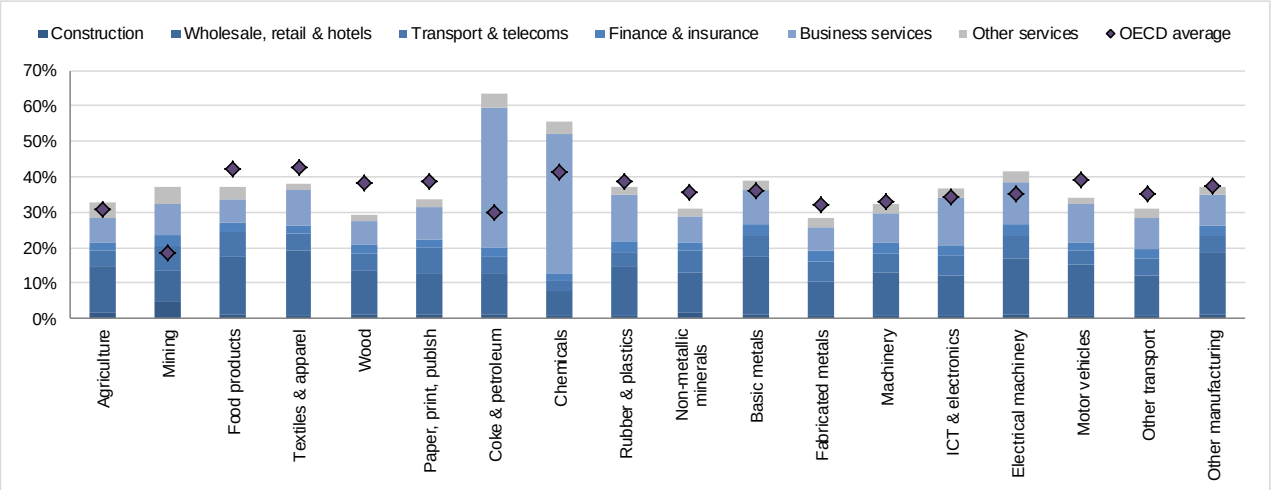
As for exports of manufactured goods alone, 43.2% of the total value reflected services sector value-added, above the OECD average (36.9%). Of this share, the Business services sector accounted for 21.7% of total gross exports, with the Wholesale, retail & hotels and Transport & telecoms sectors accounting for 10.7% and 4.7% 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 highest in Coke & petroleum (63.5%), Chemicals (55.5%) and Electrical machinery (41.6%) (Figure 11).

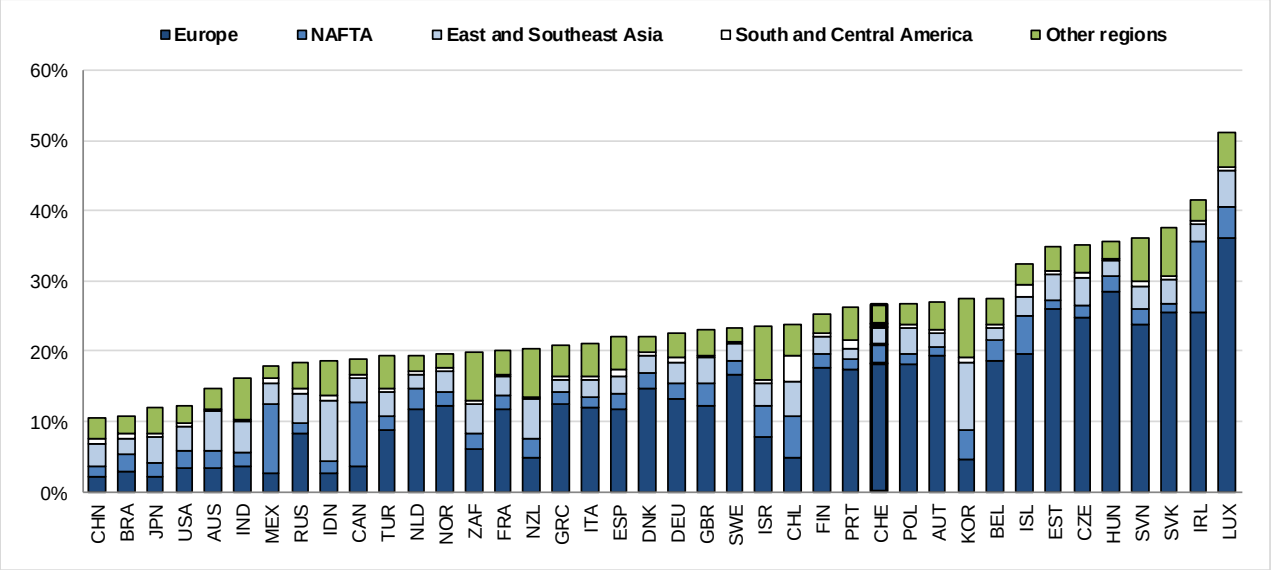
Figure 11. Switzerland's Services content of gross exports, by exporting industry and service category
percent of gross exports by industry 2011



The origin of domestic consumption

In 2011, 26.5% of Switzerland's total final domestic consumption reflected foreign content, of which Europe contributed 18.2 percentage points (pp), NAFTA 2.9 pp, East and Southeast Asia 2.4 pp, South and Central America 0.4 pp and other regions 2.7 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