TRADE IN VALUE ADDED: BRAZIL

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 Brazil’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

- As a significant exporter of mining and agricultural products, Brazil had the highest share of domestic value added content of exports (close to 90%) among BRIICS and G7 economies in 2011.

- But Brazilian manufacturers had the lowest levels of export orientation amongst the same group of countries, with less than one-fifth of total value-added destined for export markets; down from close to one-third in 2005.

- Foreign services content makes up only one-tenth of the total services content of Brazil’s exports, pointing to a relatively low services content of imported intermediate inputs. However, close to half of all exports reflect services content (and one-third of manufacturing exports reflect services content), pointing to a significant upstream contribution of domestic services industries.

- Brazil’s major import and export markets remain outside of Latin America, with China alone directly importing one-quarter of all Brazil’s intermediate exports in value-added terms in 2011, pointing to an underdeveloped regional value chain.
The role of foreign and domestic value added in exports

Although, at 10.7% in 2011, the foreign content share of Brazil’s exports is one of the lowest amongst major economies, partly reflecting relatively high export dependencies on agricultural, food and mining products, the share has increased by 2.9 percentage points since 1995 (equivalent to an increase of one-third). The share remains however below the pre-crisis high in 2008 (12.5%) (Figure 1).

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

Of Brazil’s total exports of domestic value-added in 2011, 66.7% reflected exports of intermediates, higher than the OECD average (61.5%) and significantly higher than the equivalent shares in 2009 (59.6%, in part reflecting the rebound in GVCs that were disproportionally affected by the crisis), and 1995 (58.8%) (Figure 2).

Figure 2. Domestic value added content of gross exports by end-use category by country
percent, 1995 and 2011
Direct exports by the Mining industry generated the greatest source (both direct and upstream) of domestic value added in 2011, accounting for 17.8% of the total value added of exports. The next three most important industries were Food products (12.6%), Wholesale, Retail & Hotels (11.3%, reflecting in part tourism and upstream distribution services to exporters) and Business services at 7.1% (Figure 3a).

The foreign content of exports increased in nearly all industries between 1995 and 2011, with significant increases in industries with high international fragmentation of production, such as ICT& Electronics, Motor Vehicles and Other Transport Equipment. Shares remain low however compared to OECD countries but less so when compared to other large economies. The three industries with the highest foreign value added shares in Brazil's exports in 2011 were ICT & Electronics, Coke & Petroleum, and Motor vehicles, with 24.1%, 21.4%, and 19.9% respectively, compared to figures of 17.6%, 18.2% and 12.7% in 1995 (Figure 3b).

Figure 3a. Brazil's industry share of domestic and foreign value content of gross exports

percent of total gross exports, 2011

Figure 3b. Brazil's foreign value added content of gross exports

1995 and 2011
Of the total value of Brazil's imports of intermediate products and services, 17.6% was subsequently embodied in exports (Figure 4); significantly below the OECD average (39.3%), but only about 3 percentage points lower than the United States. This was however above the equivalent figure in 2009 (16.6%). The products with highest shares were Mining, Machinery and Agriculture, at 23.8%, 22.3% and 21.9% respectively.

**Figure 4. Brazil'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 Brazil

Brazil had the lowest export orientation of manufacturers in 2011 amongst BRIICS and G7 economies, with only 18.4% of manufacturing value-added driven by foreign final demand. Although significantly higher than in 1995, this was lower than the equivalent figure in 2009 (18.8%) and significantly lower than in 2008 (22.8%) and in 1995 (13.4%) (Figure 5). However the slight increase relative to 2010 suggests that the downward trend that began in the mid-2000s may have started to buck.

**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 Brazil)

At the total economy level, 11.9% of Brazil's domestic value added was driven by foreign final demand, but in some sectors export orientation was high, with nearly half (46.2%) of all Mining value-added and one-third (32.7%) of Basic metals value-added destined for foreign markets. However, across most industries, these shares were down on 2008 (Figure 6).

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


In gross terms, China (16.3%), the United States (13.4%) and Argentina (7.5%) were the three most important Brazilian export market destinations. In value-added terms, the United States is most important foreign market instead of China, partly reflecting Brazilian value-added embodied in Chinese exports, (Figure 7, top). For imports, Brazil's top two partners in value-added and gross terms were the United States and China, with Germany ranking above Argentina in third place when measured on value-added terms, (Figure 7, bottom).

Figure 7. Brazil'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 intermediates goods and services, China was the most important destination market, importing almost a quarter (23.2%) of Brazil's intermediate exports in 2011; significantly up on the 15.9% in 2008 (Figure 8).

The importance of services

In 2011 the service sector’s share of total exports of domestic value added in Brazil was just under a half (48.9%), marginally below the OECD average of 54.3%, but with a very low foreign services content (less than one-tenth of the total services content); partly reflecting Brazil's relative specialisation in upstream industries with typically little services content (Figure 9).

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, 37.7% of the total value reflected services sector value-added, above the OECD average (36.9%). Of this share, the Wholesale, Retail & Hotels sector accounted for 13.0% of total gross exports, with Business services and Finance & Insurance accounting for 10.9% and 5.0% 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 similar to the OECD average in most industries, and was highest in ICT & Electronics (45.4%), Motor vehicles (43.4%) and Chemicals (42.3%) (Figure 11).

Figure 11. Brazil’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, 10.7% of Brazil's total final domestic consumption reflected foreign content, with only China ranking lower amongst BRIICS and G7 economies. The largest contribution came from Europe with 2.9 percentage points, followed by NAFTA (2.4 pp), East and Southeast Asia (2.4 pp) and South and Central America (0.9 pp), with the rest of the world contributing 2.4 pp (Figure.12).

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