

TRADE IN VALUE ADDED: BRAZIL

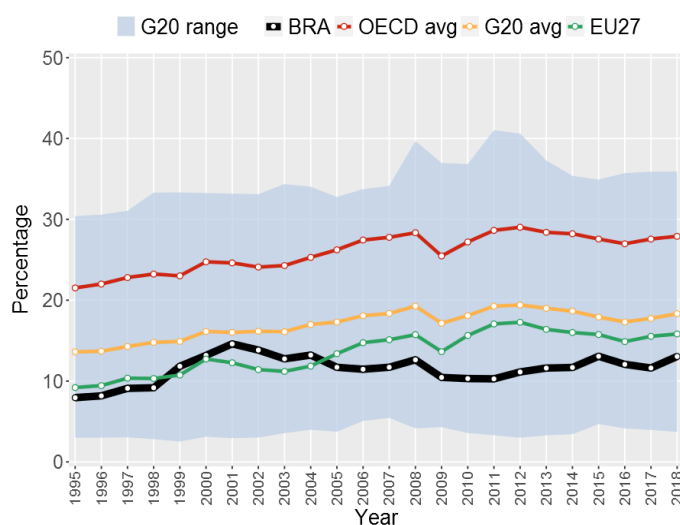
February 2022

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 Brazil, with a view to informing policy making for a range of areas including trade, innovation, and investment.

Key findings

- ▶ The foreign content of Brazil's exports increased from 12.6% to 13% between 2008 and 2018, after a recent peak at 13.1% in 2015 (Figure 1). These shares are considerably below the OECD and G20 averages of 27.9% and 18.3%, respectively.
- ▶ In 2018, Brazilian manufacturing of *Other transport equipment* (which includes *Shipbuilding, Air and spacecraft and Railroad equipment*) was the country's economic activity with the highest share (78.5%) of domestic value added in foreign final demand (Figure 2). From 2008 to 2018, this sector saw the steepest rise in this share, an increase of 20 percentage points (pp).
- ▶ While China was Brazil's largest export market in 2018, both in gross and value-added terms, it was third behind the United States and the European Union as an origin of Brazilian imports. These three destinations accounted for over half (53.4%) of foreign final demand for Brazilian value added (Figure 5). In Latin America, Brazil's largest trade partner in 2018 was Argentina, which was also Brazil's top partner in terms of domestic value added returning to Brazil via imports (Figure 6).
- ▶ Although the services content of Brazil's total manufacturing gross exports remained roughly stable between 2008 and 2018, the trends in different manufacturing industries varied. While the services content of gross exports by *Textiles and apparel* fell by nearly 9pp, that of both *ICT and electronics* and *Machinery and equipment* increased by over 10pp (Figure 7).

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



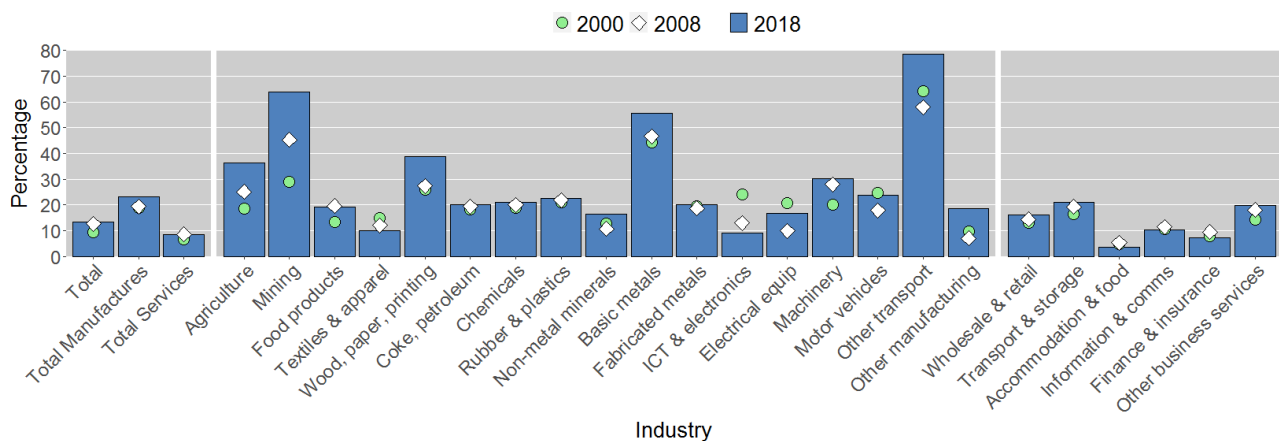
At the global level, the new TiVA indicators confirm that there has been a slowdown in GVC integration since the Financial Crisis in 2008-2009 (Figure 1). However, in general, foreign value added in trade increased between 2016 and 2018.

Between 2008 and 2018, the foreign content of Brazil's exports is estimated to have increased from 12.6% to 13% - significantly below the OECD average of 27.9%. Compared to 2008, the foreign content of exports in 2018 was 0.4 percentage points higher.

The role of foreign final demand in domestic production

Overall, in 2018, 13.5% of Brazil's domestic value added was driven by foreign final demand, up from 12.8% in 2008. By industry, the shares ranged from *Other transport equipment* (78.5%) and *Mining and quarrying* (63.8%) at the higher end to *Accommodation and food services* (3.5%) at the lower end.

Figure 2. Brazil - 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 *Other transport equipment* (33.4%), *ICT and electronics* (26.8%) and *Basic metals* (23%). *Mining and quarrying* generated the greatest source of domestic value-added content of exports in 2018, accounting for 15.2% of gross exports (Figure 3b), followed by *Agriculture, forestry and fishing* (13.9%) and *Food and beverages* (9.6%). The most foreign content in total exports came from *Mining and quarrying* (2%).

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

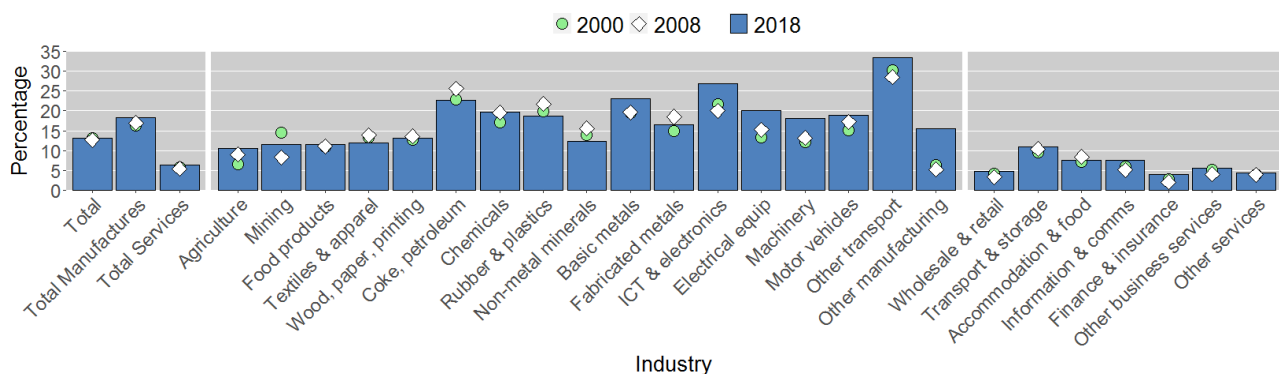
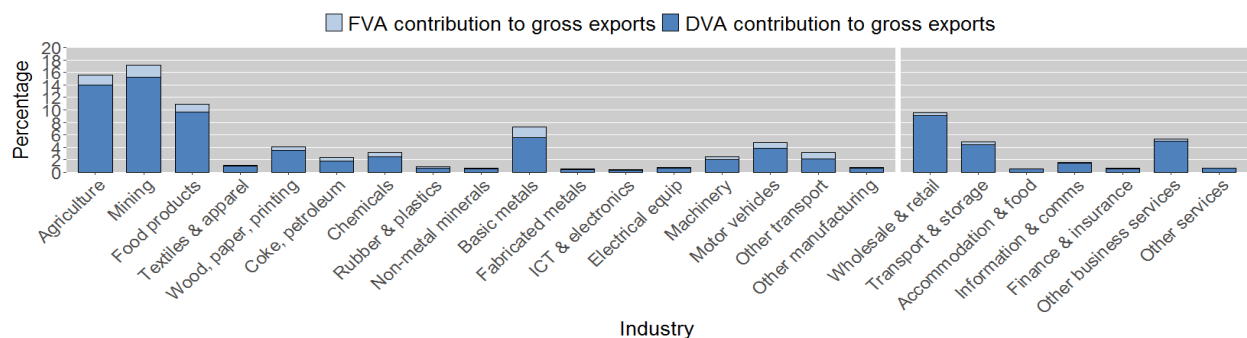
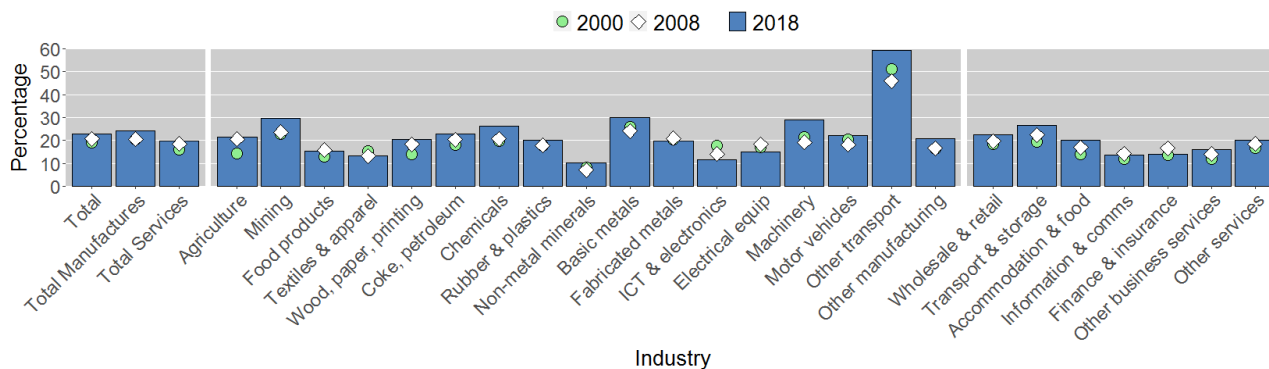


Figure 3b. Brazil - industry share of domestic and foreign value-added content of gross exports
As a percent of total gross exports, 2018



Of the total value of Brazil's imports of intermediate goods and services in 2018, 22.9% was subsequently embodied in exports, significantly below the OECD average of 47.9%, and above the share in 2008 (20.7%). The originating industries with the highest shares of intermediate imports used in Brazil's exports were *Other transport equipment* (59.5%), *Basic metals* (30%) and *Mining and quarrying* (29.6%).

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



Brazil: international flows of goods and services, main players

In gross terms, China (24.3%), the United States (14.6%) and the European Union (14.2%) were the three most important Brazilian export market destinations in 2018. The top three final destinations for Brazil's value added were China (23.1%), the United States (16.3%) and the European Union (14%).

For imports in gross terms, Brazil's top three partners in 2018 were the European Union (25.4%), the United States (20.7%) and China (13.8%), while in value-added terms, the top three were the European Union (23.8%), the United States (21.3%) and China (13.4%).

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

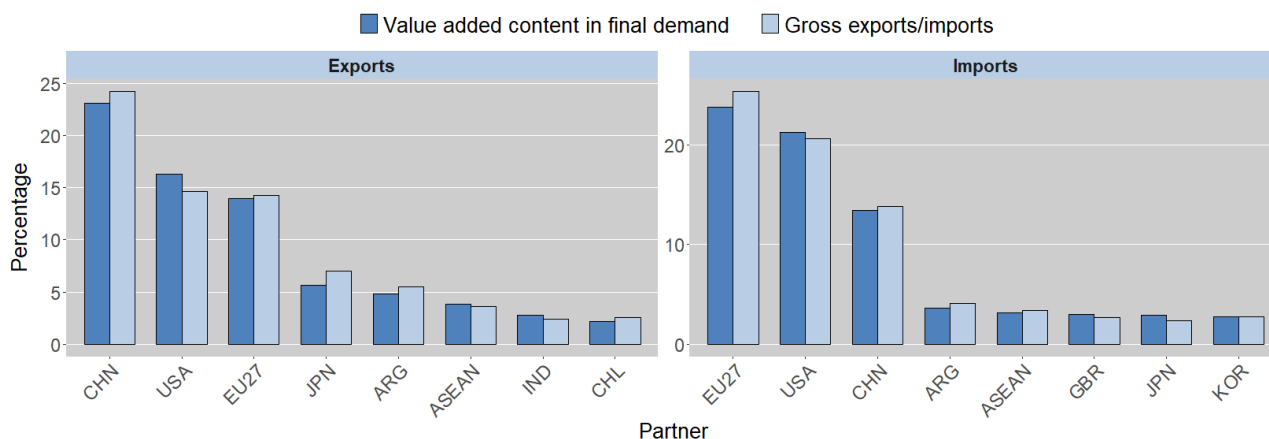
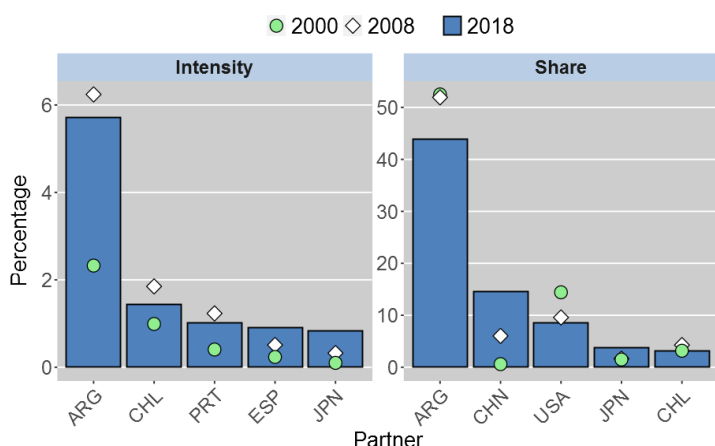


Figure 6. Brazil's domestic value-added content of manufactured imports, top 5 partners
As a share of total Brazil's value added embodied in Brazil's imports (right) and as a percent of total imports by partner (left)



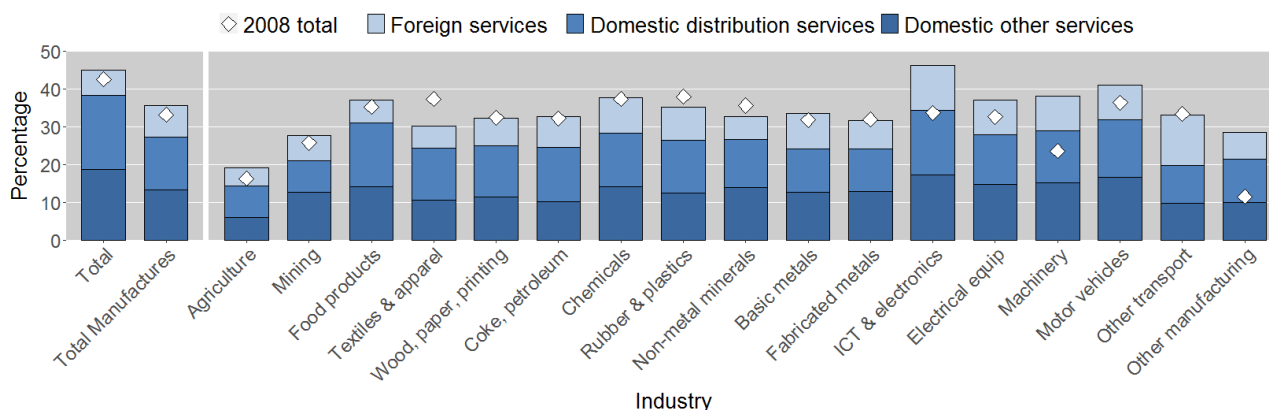
In 2018, the highest shares of Brazil's domestic value added embodied in Brazil's manufactured imports (Figure 6, right) came from Argentina (43.9%), China (14.6%) and the United States (8.5%).

The trading partners with the highest shares of Brazil's value added in their exports of manufactures to Brazil (Figure 6, left) in 2018 were Argentina (5.7 %), Chile (1.4 %) and Portugal (1 %).

The importance of services in international trade

Services are a significant contributor to Brazil's economy, accounting for 44.9% of Brazil's gross exports in 2018 (Figure 7) - significantly below the OECD average of 55.7%. Foreign services contributed 6.5% to the value of total gross exports. For manufactures, services value-added content was 35.7% of gross exports, with the highest shares in ICT and electronics (46.3%), Motor vehicles (41%) and Machinery and equipment, nec (38%).

Figure 7. Brazil - 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>

Note: This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.