

TRADE IN VALUE ADDED: CHINA

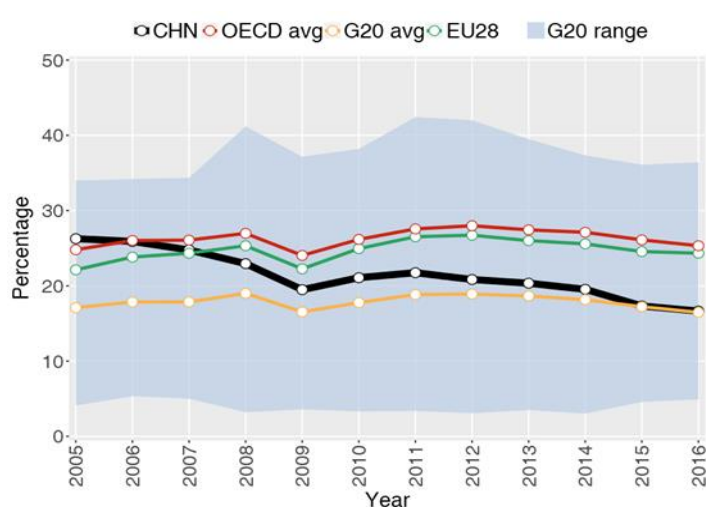
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Trade in Value Added (TiVA) indicators offer new insights into the commercial relations among economies and provide a broad view of where value is created along each stage of global value chains (GVCs). Painting a more complete picture than gross trade 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 2018 version of the TiVA database covers 64 economies and 36 industrial sectors, for the years 2005 to 2015, 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 the People's Republic of China (herein after "China"), with a view to informing policy making for a range of areas including trade, innovation, and investment.

Key findings

- ▶ The latest TiVA indicators provide a window into China's economic rebalancing, revealing an increasingly service-driven economy that is shifting away from manufacturing-led export growth towards domestic supply and consumption.
- ▶ The foreign value-added content of China's exports declined by 9.6 percentage points between 2005 and 2016, from 26.3% to 16.6% (Figure 1). Leading the way, the share of foreign content in the *ICT and electronics* sector (China's largest export industry) fell from roughly 43% to around 30% in 2015 (Figure 3a), suggesting a shift towards domestic sourcing of intermediate inputs.
- ▶ The share of China's domestic value-added content driven by foreign final demand fell from 23.5% in 2005 to 16.7% in 2015 (Figure 2), while at the same time, the share of imported intermediate inputs subsequently embodied in exports decreased from 41.8% to 30.3% (Figure 4), suggesting a shift away from production to meet foreign final demand towards domestic consumption.
- ▶ The services content of China's gross exports increased from roughly 29% in 2005 to 35% in 2015, of which foreign value added contributed almost 6 percentage points. Services are also growing increasingly important to China's manufacturing competitiveness, contributing to roughly 30% of gross manufactures exports in 2015, up from 24% in 2005 (Figure 7).
- ▶ While the United States is by far China's most important trading partner, in both gross and value-added terms (Figure 5), the intensity of China's integration with some of its regional trading partners (Viet Nam, Cambodia, Malaysia, and Hong Kong, China) has increased substantially over the last decade (Figure 6).

Figure 1. Foreign value-added content of gross exports
As a percent of total gross exports, 2005 to 2016



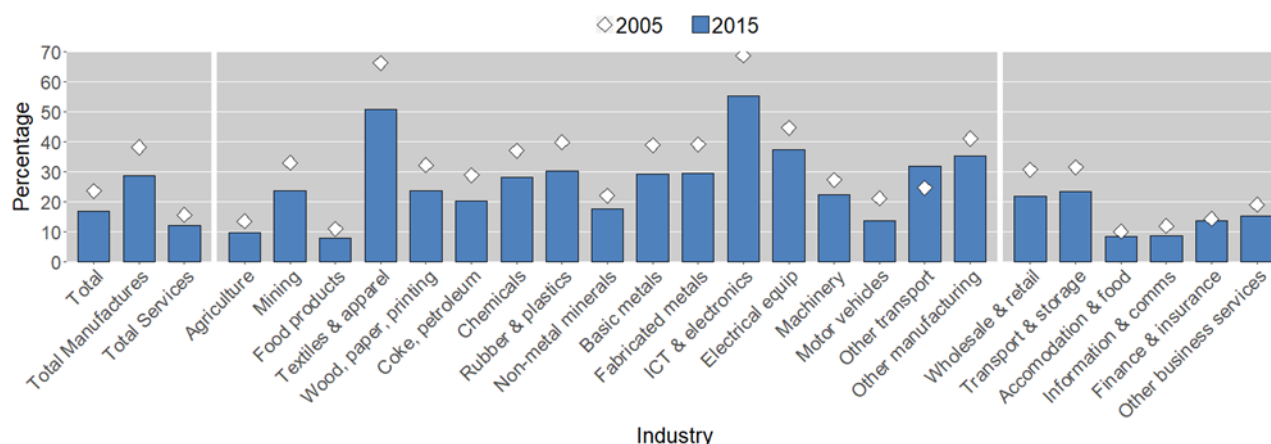
At the global level, new TiVA indicators reveal that overall, GVC integration has steadily declined in recent years, following a brief increase in the wake of the financial crisis (Figure 1).

This trend holds true for China, with foreign content of China's exports declining by 9.6 percentage points between 2005 and 2016 from 26.3% to 16.6%. This is below the OECD and G20 averages, despite being higher than both a decade earlier. This is not entirely surprising, given China's economic rebalancing and the sheer size of its economy. With a growing pool of competitive domestic suppliers from which to source inputs, the foreign value-added content of China's exports is decreasing.

The role of foreign final demand in domestic production

Overall, 16.7% of China's domestic value added in 2015 was driven by consumption abroad, down from 23.5% a decade earlier. By industry, the shares ranged from *ICT and electronics* (55.3%) and *Textiles and apparel* (50.8%) at the higher end, to *Food and beverages* (7.8%) at the lower end.

Figure 2. China - domestic value added in foreign final demand
As a percent of value added by industry, 2005 to 2015



The importance of imports for exports

The industries with the most foreign value-added content in their exports (Figure 3a) were *Coke and refined petroleum products* (35%), *ICT and electronics* (30.5%), and *Electrical equipment* (18.8%). *ICT and electronics* generated the greatest source of domestic value-added content of exports in 2015, accounting for 15.6% of gross exports (Figure 3b), followed by *Textiles and apparel* (12.2%) and *Electrical equipment* (7.8%). The most foreign content in total exports also came from *ICT and electronics* (6.8%).

Figure 3a. China - foreign value-added content of gross exports
As a percent of gross exports, by industry, 2005 and 2015

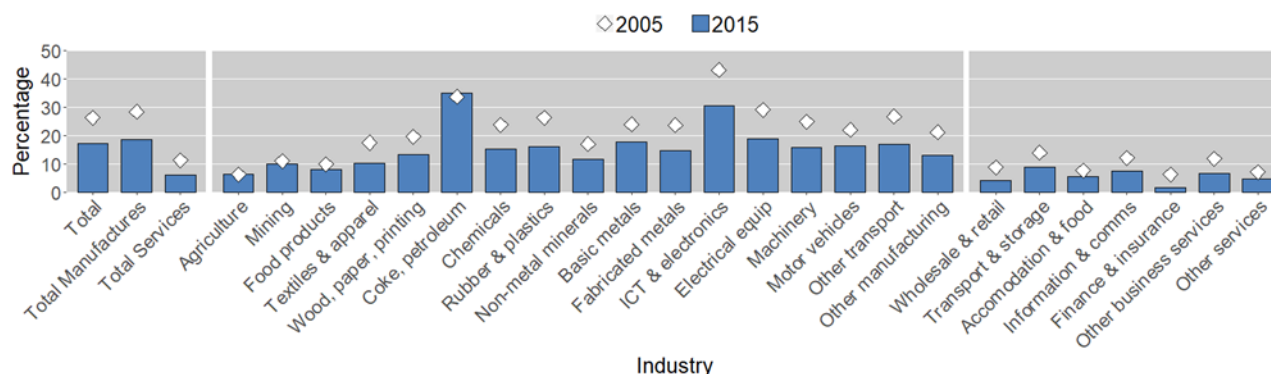
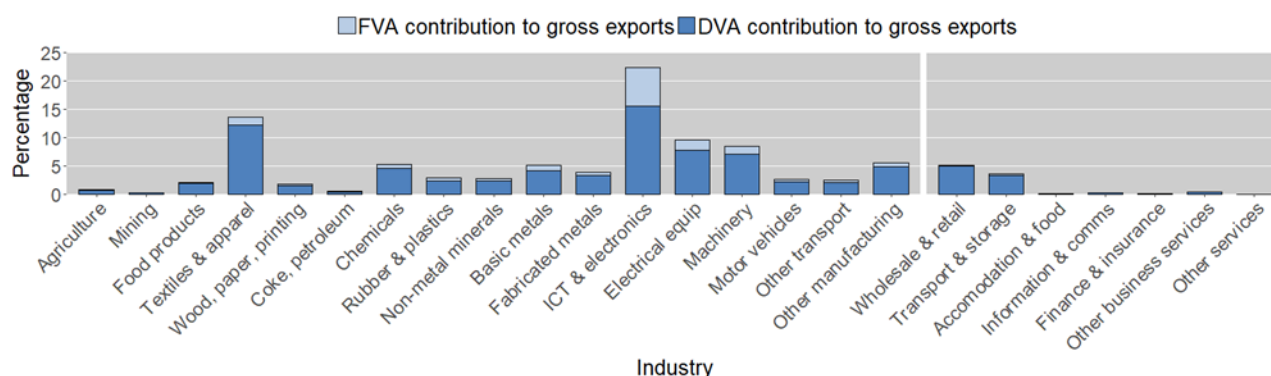
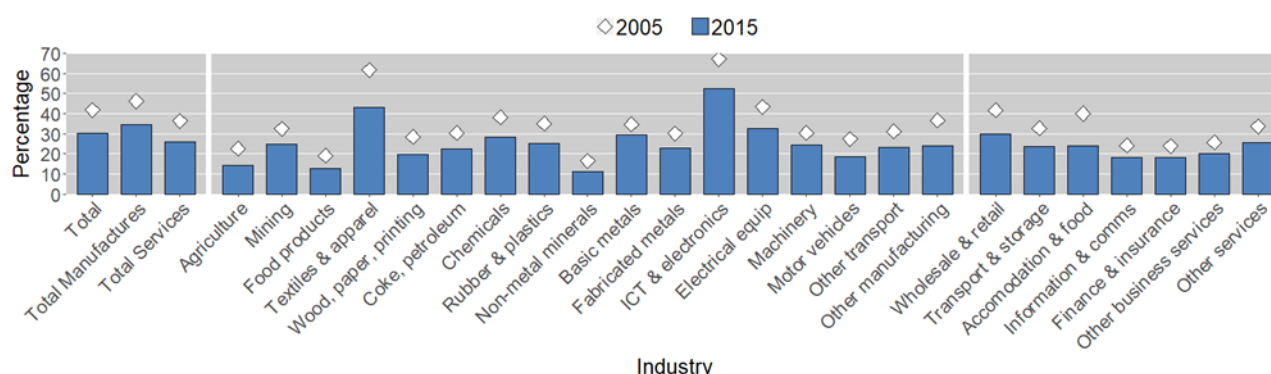


Figure 3b. China - industry share of domestic and foreign value-added content of gross exports
As a percent of total gross exports, 2015



Of the total value of China's imports of intermediate goods and services in 2015 (Figure 4), 30.3% was subsequently embodied in exports, significantly below the OECD average of 45.5%, and also significantly below the share in 2005 (41.8%). The originating industries with the highest shares of intermediate imports used in China's exports were *ICT and electronics* (52.5%), *Textiles and apparel* (43.3%) and *Electrical equipment* (32.8%).

Figure 4. China - imported intermediate inputs used for exports, by industry-origin of imports
As a percent of intermediate imports, 2005 and 2015



China: international flows of goods and services, main players

The most important trading partner for China, in both gross and value-added terms, is the United States. In gross terms, the US (22.3%) was China's top export market in 2015, followed by Japan (7.9%) and Korea (5.1%). Taken in value-added terms, the US is even more significant, topping the list of final destinations for China's value added at 24.8%, followed by Japan (8.1%) and India (3.7%) (Figure 5, left).

For imports in gross terms, China's top three partners in 2015 were the United States (12.6%), Korea (10.9%) and Japan (8.6%), while in value-added terms, the top three were the United States (14.9%), Japan (9%) and Korea (7.2%) (Figure 5, right).

Figure 5. China - exports to and imports from main partner countries
As a percent of total gross and value added exports and imports, 2015

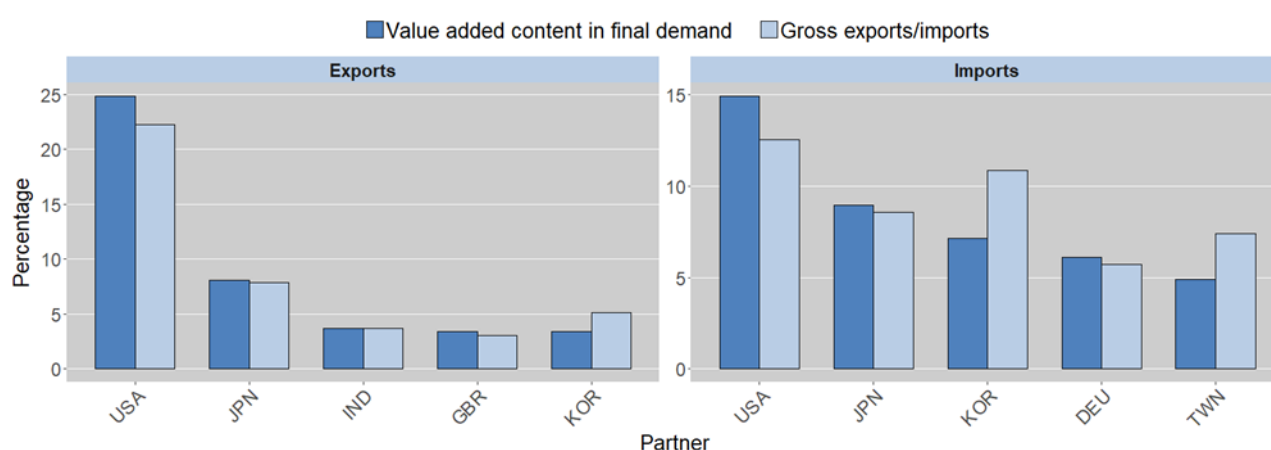
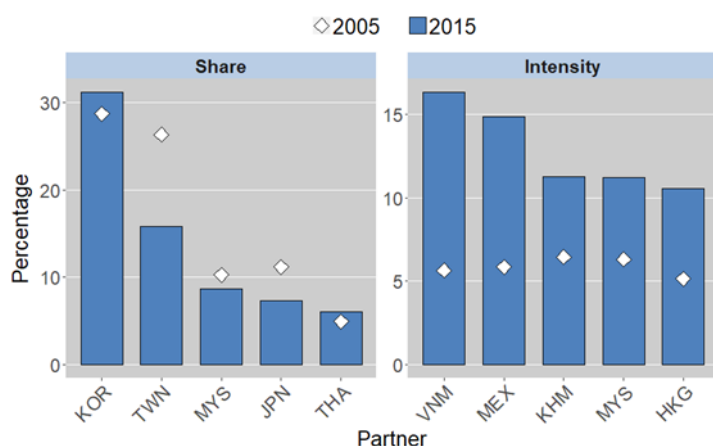


Figure 6. China - domestic value-added content of manufactured imports, top 5 partners
As a share of China's total value added embodied in imports (left), and as a percent of total imports by partner (right)



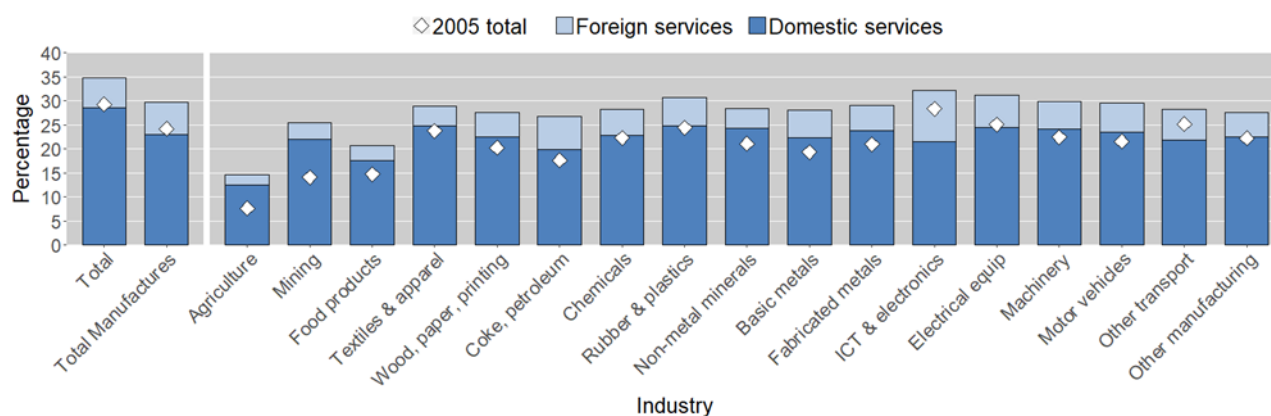
In 2015, the highest shares of China's domestic value added embodied in manufactured imports into China (Figure 6, left) came from Korea (31.2%), Chinese Taipei (15.8%), and Malaysia (8.7%).

The trading partners with the highest shares of China's value added in their exports of manufactures to China (Figure 6, right) in 2015 were Viet Nam (16.3 %), Mexico (14.9 %), and Cambodia (11.3 %).

The importance of services in international trade

Services are an increasingly important contributor to the Chinese economy, accounting for 34.8% of China's gross exports in 2015 (Figure 7), though this is significantly below the OECD average of 54%. Foreign services providers contributed 6.2% of the total gross value of these services exports. Services sectors are not just important to China's economy in their own right, but are also essential for manufacturing competitiveness. In 2015, services value-added content contributed to 29.7% of gross manufactures exports from China, with the highest shares in ICT and electronics (32.3%), Electrical equipment (31.2%), and Rubber and plastics products (30.7%).

Figure 7. China - services content of gross exports
As a percent of gross exports by industry, 2015



Further information is available to supplement this country note:

- Access the data at: <http://oe.cd/tiva>
- Guide to TiVA 2018 Country Notes: www.oecd.org/sti/ind/tiva-2018-guide-to-country-notes.pdf
- Trade Policy Implications of GVCs: www.oecd.org/tad/trade-policy-implications-global-value-chains.pdf
- TiVA 2018 introductory flyer: www.oecd.org/sti/ind/tiva-2018-flyer.pdf

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