# TRADE IN VALUE ADDED: ROLE OF INTERMEDIATES AND SERVICES

The data on Trade in Value Added (TiVA) highlight the significance of intermediate imports used in producing goods and services for export in many economies. They emphasise that being competitive on international markets requires access to the most efficient inputs – either domestically produced or imported – and that tariffs on imports can harm the competitiveness of downstream exporters. The data also stress the important role played by upstream services in producing exports of goods, and, so, the importance of ensuring that producers have access to the most efficient services (again either domestically produced or imported).

## Definition

Re-exported intermediates reflect the share of intermediate imports that are used (indirectly and directly) in producing goods and services for exports, as a percentage of total intermediate imports (by import category).

## Overview

On average, 45% of intermediate imports are destined for the export market in 2011. Not surprisingly, the smaller the economy the higher the share, while the larger and more diversified economies see relative low share of imports in intermediates. The United States and Japan have the lowest such shares amongst OECD countries, at 20.6% and 20.4% respectively for the total economy, with noticeably higher percentages for some sectors. In Japan for example for basic metals and fabricated metal products, transport equipment and electrical and optical equipment sectors, around 35% of intermediate imports end up in exports.

In other countries, the share of intermediate imports embodied in exports is significantly higher. In Hungary for example, over 70% of all intermediate imports are destined for the export market after further processing, with the share reaching 88.6% for electronic intermediate imports in 2011. In China and Korea, around two thirds of all intermediate imports of electronics are embodied in exports. The TiVA database also reveals that close to 90% of China's intermediate imports of textile products end up in exports.

While services comprise about two-thirds of GDP in most developed economies, they typically account for just over one-quarter of total gross trade in goods and services in OECD countries. However, from a trade in value added perspective, the services sector contributes over 50% of total exports in the United States, the United Kingdom, France, Germany and Italy, and more than 40% in China, and services are provided by both foreign and domestic service providers. Total services value added embodied in gross exports shows the total value added provided by the services sector in generating direct exports of services and also embodied in the exports of goods using intermediate services. The indicator contains a breakdown showing the contributions from domestic or foreign services.

## Comparability

The indicators in the TiVA database are estimates. The global input-output tables from which the TiVA indicators are derived by necessity have to eliminate inconsistencies within and between official national statistics, and balance bilateral trade asymmetries to achieve a coherent picture of global production, trade and consumption of goods and services. This means that while for the countries for which data is presented, all data (including total exports and imports) are made consistent with official national accounts estimates, the bilateral trade positions presented in TiVA and those published by national statistics institutions may differ.

#### **Sources**

• OECD/WTO (2016), OECD-WTO: Statistics on Trade in Value Added (Database).

### **Further information**

#### **Analytical publications**

- OECD (2013), Interconnected economies: Benefiting from Global Value Chains, OECD Publishing.
- Beltramello, A., K. De Backer and L. Moussiegt (2012), "The Export Performance of Countries within Global Value Chains (GVCs)", OECD Science, Technology and Industry Working Papers, No. 2012/02, OECD Publishing.
- De Backer, K. and N. Yamano (2012), "International Comparative Evidence on Global Value Chains", OECD Science, Technology and Industry Working Papers, No. 2012/03, OECD Publishing.

#### Methodological publications

• OECD (2012), "Trade in Value-Added: Concepts, Methodologies, and Challenges (Joint OECD-WTO Note)", Paris.

#### Websites

• Measuring Trade in Value Added: An OECD-WTO joint initiative, www.oecd.org/trade/valueadded.

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## Re-exported intermediates as percentage of total intermediate imports by selected industries

Percentage, 2011

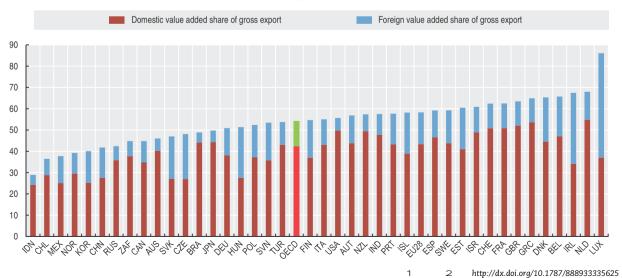
	Agriculture, hunting, forestry and fishing	Food products, beverages and tobacco	Textiles, textile products, leather and footwear	Wood paper, paper products, printing and publishing	Chemicals and non-metallic mineral products	Basic metals and fabricated metal products	Machinery and equipment	Transport equipment	Transport and storage, post and telecommunication	Business services
Australia	25.2	18.7	19.5	14.4	20.7	26.7	35.2	25.6	25.6	23.9
Austria	40.7	37.7	53.4	45.7	45.7	64.4	65.1	64.2	64.2	44.8
Belgium	38.1	37.9	43.9	41.2	56.1	57.7	47.6	58.1	58.1	48.1
Canada	31.1	23.6	35.4	27.1	35.5	53.8	37.0	71.3	71.3	31.8
Chile	33.2	28.5	24.8	32.2	35.3	43.0	36.8	25.4	25.4	37.8
Czech Republic	38.1	35.7	64.5	57.5	65.3	75.2	63.4	74.6	74.6	53.5
Denmark	50.0	46.5	44.5	36.3	54.7	44.0	61.5	63.1	63.1	53.5
Estonia	52.8	47.2	65.5	51.9	51.0	58.5	60.3	61.3	61.3	57.0
Finland	38.3	28.8	45.7	40.3	46.1	62.7	55.8	53.8	53.8	43.8
France	27.4	24.6	48.4	28.3	40.2	44.9	41.7	52.2	52.2	34.2
Germany	27.1	25.1	50.8	38.4	50.7	64.8	60.4	60.7	60.7	44.4
Greece	20.3	23.0	37.5	26.9	35.6	37.0	29.7	30.3	30.3	36.9
Hungary	50.1	49.3	80.1	59.0	67.5	72.8	80.5	84.5	84.5	63.7
Iceland	72.6	63.6	63.0	24.7	44.3	70.3	50.9	82.0	82.0	67.4
Ireland	67.9	64.4	59.3	63.6	68.9	64.6	70.4	74.0	74.0	70.4
Israel	13.6	19.5	53.6	51.4	52.5	49.7	50.5	46.1	46.1	42.6
Italy	25.3	25.1	46.9	31.2	39.7	57.8	50.6	46.3	46.3	34.5
Japan	7.0	6.0	17.4	12.0	20.7	36.8	32.5	35.1	35.1	17.7
Korea	16.1	13.1	39.9	36.1	52.9	56.6	49.9	58.6	58.6	49.1
Luxembourg	89.3	74.8	80.8	86.1	84.6	83.5	85.0	86.7	86.7	92.4
Mexico	13.4	19.9	63.4	42.4	40.7	69.0	71.7	63.4	63.4	47.0
Netherlands	40.3	38.0	34.6	31.7	47.9	39.6	39.1	38.1	38.1	38.0
New Zealand	47.7	46.2	37.1	28.4	29.6	32.8	36.9	29.4	29.4	31.3
Norway	31.1	32.8	36.3	24.6	45.6	65.2	50.9	41.8	41.8	41.8
Poland	31.0	31.3	54.5	41.0	44.5	58.9	57.1	67.0	67.0	42.3
Portugal	33.6	27.4	57.5	42.5	44.3	56.6	52.0	69.2	69.2	41.1
Slovak Republic	51.3	42.9	75.6	54.7	68.4	75.4	65.9	88.1	88.1	59.4
Slovenia	37.7	36.4	67.3	57.5	58.5	71.7	58.1	73.5	73.5	53.2
Spain	30.2	27.1	48.0	31.5	41.3	50.5	42.5	64.8	64.8	35.7
Sweden	41.6	34.2	47.6	43.3	51.7	66.6	57.7	66.6	66.6	47.7
Switzerland	27.9	30.3	50.4	44.5	52.9	59.2	57.2	55.6	55.6	52.1
Turkey	14.1	17.5	28.0	21.4	25.4	36.4	26.8	35.6	35.6	25.8
United Kingdom	22.7	20.3	37.8	27.2	39.2	56.2	48.8	43.5	43.5	33.2
United States	15.5	10.6	21.0	15.3	20.3	30.6	23.4	43.5	43.5	16.0
EU 28	31.7	29.5	50.0	37.0	46.4	58.5	54.1	58.3	58.3	44.8
OECD	23.9	23.4	37.4	29.9	38.6	50.5	42.2	50.2	50.2	37.4
Brazil	21.9	14.2	11.2	16.7	17.3	20.1	22.3	15.0	15.0	16.2
China	34.8	36.3	88.3	49.3	48.3	54.3	48.1	26.5	26.5	48.7
India	14.9	18.2	27.3	23.0	26.3	16.5	24.2	20.5	29.9	28.1
Indonesia	14.5	11.9	30.9	20.8	16.9	10.9	24.2	16.2	16.2	18.7
Russian Federation		14.3	21.7	20.8	37.3	54.4	30.1	30.0	30.0	31.8
South Africa	17.1	14.5	21.7	24.6	29.3	31.4	43.3	31.2	31.2	32.6

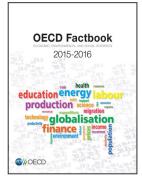
2 http://dx.doi.org/10.1787/888933336685

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Total domestic and foreign services value added embodied in gross exports

As a percentage of gross exports, 2011





# From: OECD Factbook 2015-2016 Economic, Environmental and Social Statistics

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