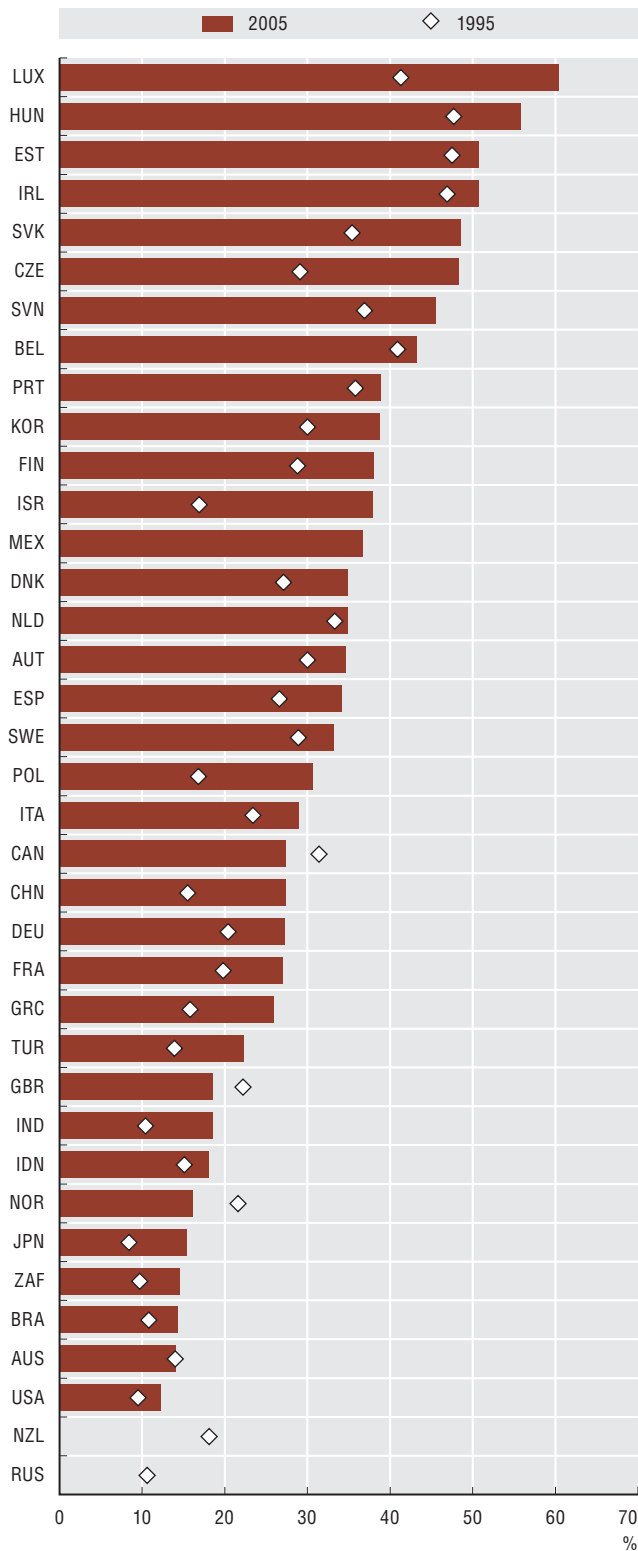


7. Import content of exports

Import content of exports, 1995 and 2005

As a percentage of total exports



Source: OECD, STAN Input-Output Database, May 2011. See chapter notes.
 StatLink  <http://dx.doi.org/10.1787/888932487875>

The “import content of exports” measure (proposed by Hummels *et al.*, 2001), provides an indication of the increasing importance of the international fragmentation of production processes. By linking OECD’s “harmonised” national input-output tables (which show countries’ inter-industry transaction patterns) with bilateral trade by industry statistics, the value of imported intermediate goods and services subsequently embodied in exports can be estimated. While this highlights the imports required to meet the demand for exports, changes in the import content of exports can also reveal the evolution of domestic value added due to exporting activities.

Smaller economies tend to have higher shares of imports embodied in their exports. The availability of a wider variety of domestically sourced intermediate goods means that larger countries are less reliant on imports of intermediates, such as primary goods and parts and components, for their production of export-oriented goods. Countries with substantial natural resources such as Australia, Norway, South Africa and the Russian Federation also have lower shares of import content of exports, as mining activities require few intermediate consumption goods to produce their output. Imported capital goods, such as machinery and equipment, are excluded from this analysis.

Between 1995 and 2005, the share of import content increased in most of the countries covered – 31 OECD and the 6 BRIICS (Brazil, the Russian Federation, India, Indonesia, China, South Africa) – owing to sharp increases in import penetration rates of many intermediate goods. However, factor analysis by Meng *et al.* (2011) suggests that changes in the composition of goods exported have also driven changes in import content shares, in particular shifts in exports from labour- and domestic resource-intensive sectors to assembly-oriented machinery sectors.

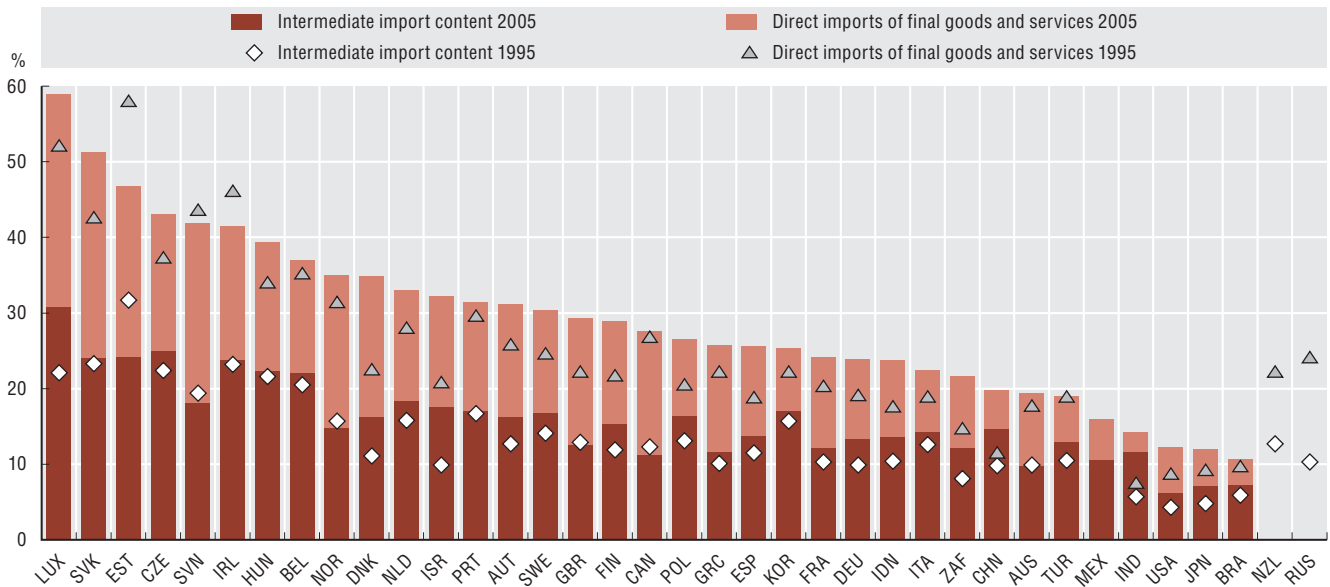
The import content of household final consumption can also be estimated using a similar methodology. This indicator includes both direct imports and indirect intermediate imports for final consumption. As for total exports, the import content share in household consumption increased between 1995 and 2005 in most countries, reducing the contribution of domestic value added. In China, India and Brazil, the share of indirect import content is relatively high owing to lower import penetration of final goods and services for household consumption compared to OECD countries.

Definitions

Import content of exports (vertical specialisation shares) is measured as the share of total intermediate imports used in the production of a country’s total exports. The vertical specialisation aggregate can be broken down by import-sourcing countries using bilateral trade statistics on goods and services.

Import content of household final consumption, 1995 and 2005

As a percentage of total household final consumption



Source: OECD, STAN Input-Output Database, May 2011. See chapter notes.

StatLink <http://dx.doi.org/10.1787/888932487894>

Measurability

Import content of exports is measured using the domestic input coefficients and import matrices of the OECD's harmonised Input-Output Database.

$$\text{Import content of exports} = \frac{u \text{ Am } (I - \text{Ad})^{-1} \text{ Ex}}{u \text{ Ex}}$$

where Am and Ad are input coefficient matrices (n sectors by n sectors) of imported and domestic goods and services, respectively; Ex is the export vector; and u is a (1 by n) vector with all elements equal to 1.

$$\text{Import content of household final consumption} = \frac{u (\text{CPm}) + u \text{ Am } (I - \text{Ad})^{-1} \text{ CPd}}{u (\text{CPd} + \text{CPm})}$$

where CPd and CPm are the household consumption vectors of domestic and imported goods and services, respectively.



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