UNCTAD/STAT/IE/2018/2

INDICATORS EXPLAINED #2
IMPORT MARKET CONCENTRATION INDEX

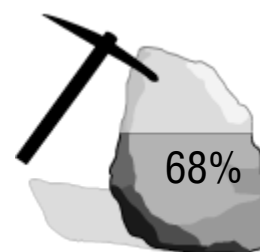## What does this indicator tell us?

This index measures, for each product, the degree of import market concentration by country of destination. It tells us if a large share of commodity imports is bought by a small number of countries or, on the contrary, if the imports are well distributed among many countries. The evolution of the index through time can also give important indications about the changing pattern of a product's consumption.

Unlike the *product concentration index*, which measures the degree of concentration of imports at the country level (i.e., if the imports of country A are concentrated on some products), this *market concentration index* gives the level of concentration of imports at the product level (i.e., if the imports of product X are concentrated on some countries of destination).

The imports of some commodities are very concentrated (relatively few countries buy these products) …

Product	Market concentration index, 2016
Uranium/thorium ores and concentrates	0.72
Iron ore and concentrates	0.66
Coin (excl. gold), not legal tender	0.65
Cork, natural	0.58
Optical instruments	0.55
Coal gas, water gas and similar gases	0.55
Waste of plastics	0.54
Briquettes, lignites and peat	0.54
Wood in the rough	0.49
Oil seeds and oleaginous fruits	0.48

For instance, **China purchases 68%** of all **iron ore** traded internationally

68%

while imports of **uranium and thorium** are **consumed** mainly by two countries:

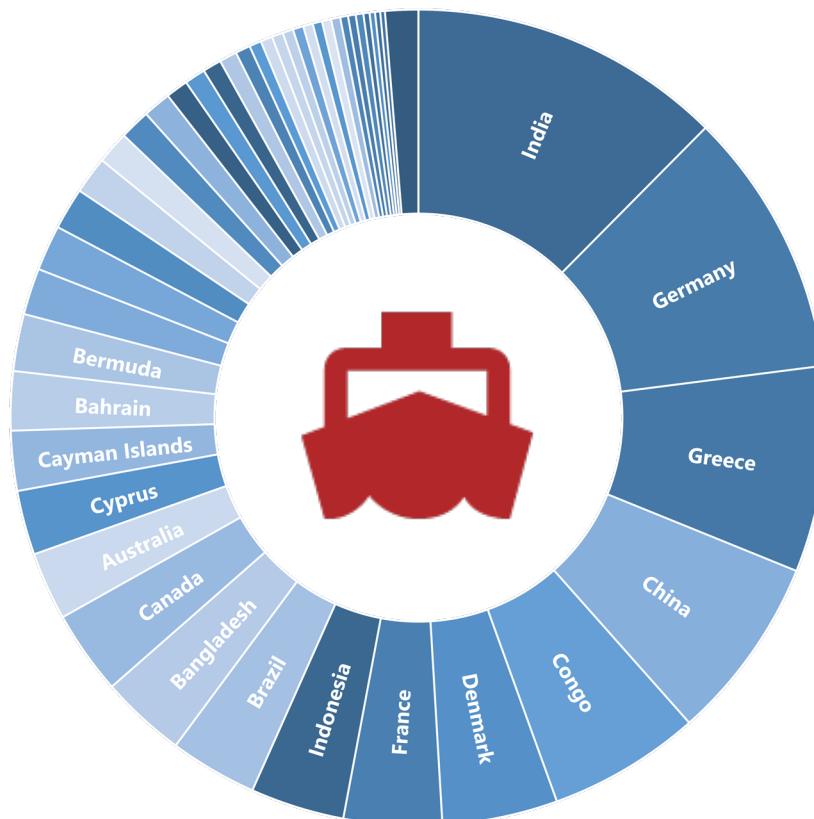United States, 74%

India, 22%

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…while those of other commodities are less concentrated (many countries import these products).

Ship and boats are imported by many countries.

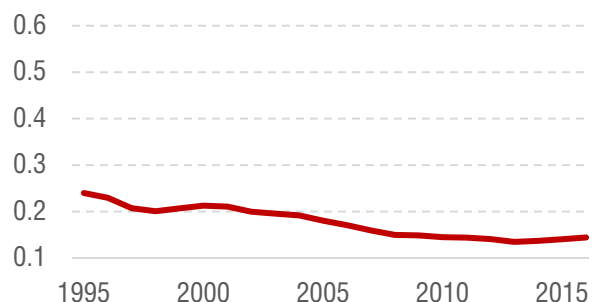| Product	Market concentration index, 2016
Worn clothing	0.08
Wheat	0.09
Rice	0.09
Sugar, molasses and honey	0.09
Iron & steel bars, shapes and sections	0.09
Soaps, cleansing and polishing	0.09
Clay construction	0.09
Margarine and shortening	0.10
Insecticides	0.10
Ships, boats & floating structures	0.10

Imports of ships, boats & floating structures, 2016
(SITC 793)

A changing diet in developing countries

As dietary preferences across the world converge and the income of developing countries increases, the markets for meat and meat products has shifted, with a greater share of imports going to developing countries. This evolution is reflected in the steady fall of the import market concentration index. Traditionally dominated by Japan, Western Europe and the United States, this market has seen an important increase in the relative share of imports to countries such as China, Mexico, Republic of Korea and Poland.
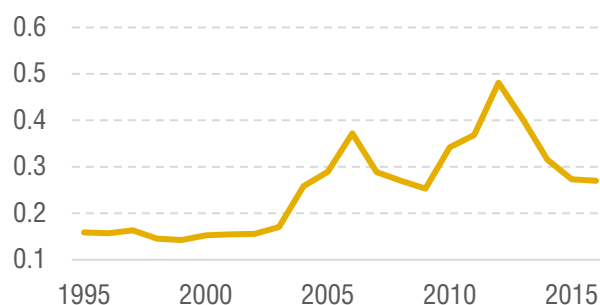
Concentration index of imports, meat
(SITC01)

Feeding the garment industry

The clothing industry has increasingly concentrated in South and South-East Asia, replacing textile centres in Europe and the Americas. This is reflected in the recent changes of the market for cotton, one of the main inputs to this industry. A relatively low concentrated commodity in terms of buyers until the early 2000s, the concentration of cotton imports rapidly increased since then, with some variability reflecting shifts in relative concentration within South and South-East Asia.
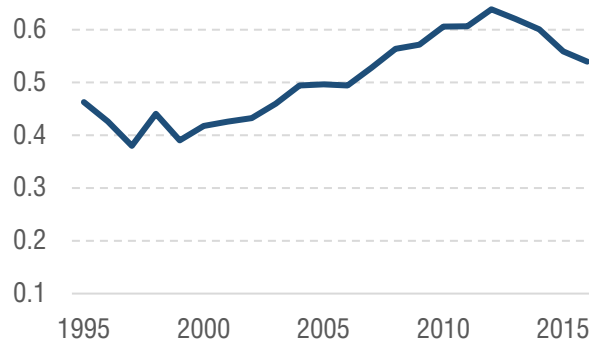
Concentration index of imports, cotton
(SITC 263)

Where will all the trash go?

Over the past two decades, China became the world's recycler, leading to a massive increase in its imports of waste. This trend was reflected, for example, in the concentration index of the imports of plastic waste. However, from 1 January 2018, the Chinese government imposed restrictions on the import of solid waste. This is a shock to the global recycling industry and a challenge for waste management in developed economies, the main origin of traded recyclable waste. This restriction will probably lead to a lower concentration in the purchases of traded waste products.

Concentration index of imports, waste of plastics
(SITC 279)

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Methodology

This indicator is defined as a normalized Herfindahl-Hirschmann index of market concentration of imports at the product level. It is calculated according to the following formula,

$$H_i = \frac{\sqrt{\sum_{j=1}^{N} \left(\frac{M_{i,j}}{M_i}\right)^2} - \sqrt{\frac{1}{N}}}{1 - \sqrt{\frac{1}{N}}}$$

where H_i is the market concentration index of imports for product i, $M_{i,j}$ is the value of imports of product i by country j, M_i is the world value of imports of product i, and N is the total number of importing countries. The concentration index of imports ranges from zero to one, with a larger value indicating a higher concentration in the import market. For example, a value of H_i equal to zero indicates that all countries in the world import an equal share of product i, while a value of one means that a single country is responsible for all imports of product i. This is an annual indicator, currently available for the period 1995-2016 and for all products at the three-digit level of the SITC Revision 3.

Note

All visualizations were created using the market concentration index of imports and other data series available at UNCTADstat. For additional details and data download, see http://unctadstat.unctad.org.