3. Import reliance

Key points:

- The EU remains highly dependent on imports of several metal ores and natural rubber from international markets.
- The EU continues to be largely self-sufficient for construction materials, several non-metallic minerals and industrial roundwood.

Overview and context

As for most countries or geographical areas, the EU is not self-sufficient in several raw materials and must rely on imports from international markets. Levels of import reliance are highly variable for different raw materials. This has different causes, including resource endowment, lack of exploration investment and, in the case of biotic raw materials, climatic conditions.

Excessively high import reliance can become a security of supply issue, as economies are more vulnerable to e.g. export restrictions applied by producing countries (see also Indicator 5). However, the number of sourcing countries (geographical concentration) and their governance (see also Indicator 4) also influence supply risk. For this reason, some materials are critical even if their import reliance is relatively low. Similarly, import reliance can be a key consideration in the context of responsible sourcing.

This indicator monitors the EU economy’s dependence on the imports from international markets of raw materials in the initial stage of their supply chain. Other indicators in the Scoreboard complement this one by providing information on the EU’s share of global production (Indicator 1), the security of supply and diversification of supply sources (Indicators 4 and 5) and on recycling’s contribution to meeting demand for materials (Indicator 16).

Facts and figures

Figure 3.1 presents time trends of import reliance for metals ores, non-metallic minerals and timber. Data from the Eurostat 63

Figure 3.1: Import reliance in the EU-28 for raw materials in the initial stage of supply chain (2000-2016)63.

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64 In the case of metals and minerals, the initial phase of the value chain is the extractive one. Only in specific cases import reliance is calculated at a metallurgy stage. For timber, it refers to the harvesting phase.
Economy-wide material flow accounts (EW-MFA) are used to provide an aggregate overview of the material flows into and out of an economy. Import reliance is calculated as the ratio of net imports (imports minus exports) divided by domestic material consumption. Figure 3.1 also highlights that the EU is self-sufficient in non-metallic minerals, while for timber the import reliance was 5.6% in 2015 and has been almost stable, below 10%, in the last 15 years. Conversely, import reliance remains high for metals, with a sharp decrease in 2009, corresponding to the economic crisis.

Looking at the latest available data for specific materials in Figure 3.2, import dependency reaches 100% for several metals and for natural rubber. Not surprisingly, most of the critical raw materials have a high import dependency. When compared to 2016 data, import reliance for cobalt significantly decreased, for vanadium, bauxite and tin it moderately declined, while for copper and chromium import reliance has increased in the last 2 years.

Conclusion

A high dependency on imports does not automatically imply a low security of supply, criticality or concerns in the context of responsible sourcing. However, it is certainly a key consideration, together with governance and supply concentration. Monitoring import dependency therefore plays a very important role in supporting raw materials policy. The EU’s import reliance is generally high for metals and natural rubber, but very low for several non-metallic minerals and industrial roundwood.

With the raw materials initiative, the EU has put in place a framework to decrease its import dependency by promoting the sustainable supply of primary (the second pillar of the framework) and secondary (the third pillar) raw materials from European sources. In parallel, securing access to undistorted international markets remains a priority under the first pillar, and presupposes a balanced approach across the three pillars.

Figure 3.2: Import reliance for selected raw materials.
Methodological notes

Figure 3.1
Import reliance is calculated using the formula:

\[ \text{IR} = \frac{\text{net import}}{\text{apparent consumption}}; \]

Where: apparent consumption = domestic production + import — export

Data used to calculate import reliance are from the Eurostat Material Flow Accounts, and therefore refer to physical amounts of materials domestically extracted and the physical imports and exports, expressed in mass units.

The calculation of import reliance was aligned with the revised methodology for identifying the list of critical raw materials for the EU. In the 2016 Scoreboard, the same concept was expressed as ‘share of imports’, calculated as a ratio between imports and direct material input (i.e. domestic extractions plus import). In both cases, we used Eurostat ‘Material Flow Account’ data.

Figure 3.2
Import reliance for selected materials in the initial stages of their supply chain is calculated with the same formula as in Figure 3.1. Data and subsequent elaboration are from the ‘Study on the review of the list of Critical Raw Materials’ (EC – European Commission, 2017). Import reliance is calculated at the “extraction” stage, with the exception of antimony, niobium, platinum, vanadium, tin and chromium, for which the calculation is carried out at the metallurgy stage (referred to as “processing” in the above mentioned EC 2017 Study).