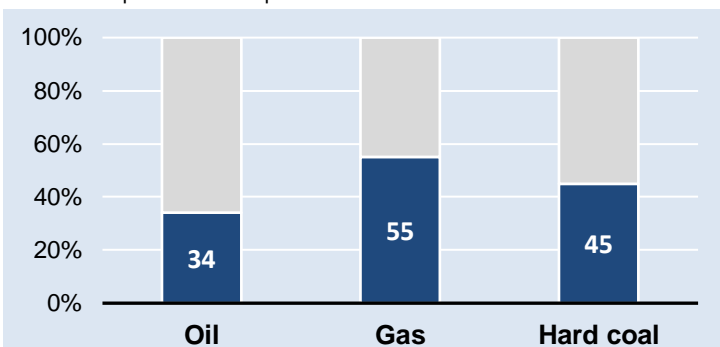


German electro and digital industry: raw materials from Russia

Regarding the importance of raw materials from Russia for the German electro and digital industry, it is helpful to distinguish between energy imports on the one hand and metal imports on the other. Less than two percent of the materials and goods received by the German electro and digital industry as inputs are directly related to energy. It therefore plays a comparatively minor role in the industry's own production process. Rather, the availability of primary energy influences the electrical industry indirectly through macroeconomic channels – e.g., when a negative supply shock depresses overall economic output and drives inflation – or when higher energy prices make other intermediate goods more expensive.

German energy imports from Russia

Share of respective total imports 2020



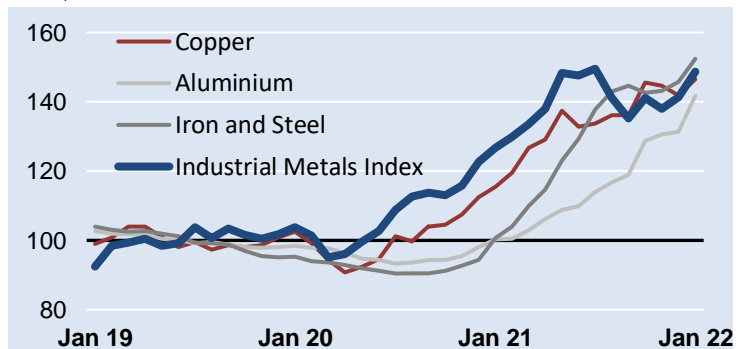
Sources: BAFA, BP, VDKi

Imports from Russia account for a large share of the primary energy sources supplied to the German economy from abroad (oil 34%, gas 55%, hard coal 45% of total imports to Germany). Greater diversification of energy imports is necessary. However, in the short run it is likely to lead to even higher import prices – not least because of the more complex logistics (LNG terminals vs. pipelines). In the long term a massive expansion of renewable energies will not only be necessary primarily for climate policy reasons, as has been the case so far, but also for security policy reasons.

Within the German electro and digital industry material costs amount to half of turnover. The sector obtains more than two-thirds of its input materials from companies also belonging to the electro and digital industry. Therefore, metals are purchased both indirectly as part of electrical products, but also directly. Direct purchases of iron, steel and products made from them account for just under four percent of total material costs. Here, possible shortages could result above all from the high Russian hard coal imports, which are used among other things for processing iron. The use of non-ferrous metals (including copper, palladium, nickel and aluminium) within the electro and digital industry is somewhat higher than for iron et al., at five percent. Of course, the use of resources varies within the heterogeneous electro and digital industry. In the case of cable producers, 45 percent of incoming materials are non-ferrous metals, and in the case of manufacturers of electric motors and transformers, 20 percent are iron and steel products. German imports from Russia amount to 31 percent of total imports of copper, 28 percent each of palladium and nickel, and 20 percent of total imports of aluminium.

Price development of industrial metals

Index, 2019 = 100



Sources: Destatis and ZVEI's own calculations, IW Cologne

In principle, it should be possible to partially replace metal imports from Russia with supplies from other countries. Nonetheless, possible transient supply failures or difficulties could put additional strain on the situation in the already tight commodity market. Last year's strong recovery in the overall economic demand for goods had caused higher prices and shortages. As a result, material costs in the electro and digital industry rose by more than five percent in 2021, and by as much as eleven percent year-on-year in January 2022. Due to an economic survey conducted by the ifo Institute, almost nine out of ten companies in the German electro and digital industry bemoaned a shortage of materials as the biggest obstacle in their own production process at the beginning of the first quarter of 2022.