CHART OF THE WEEK

4 February 2025

CENTRAL EUROPE: MOVING UP THE VALUE CHAIN

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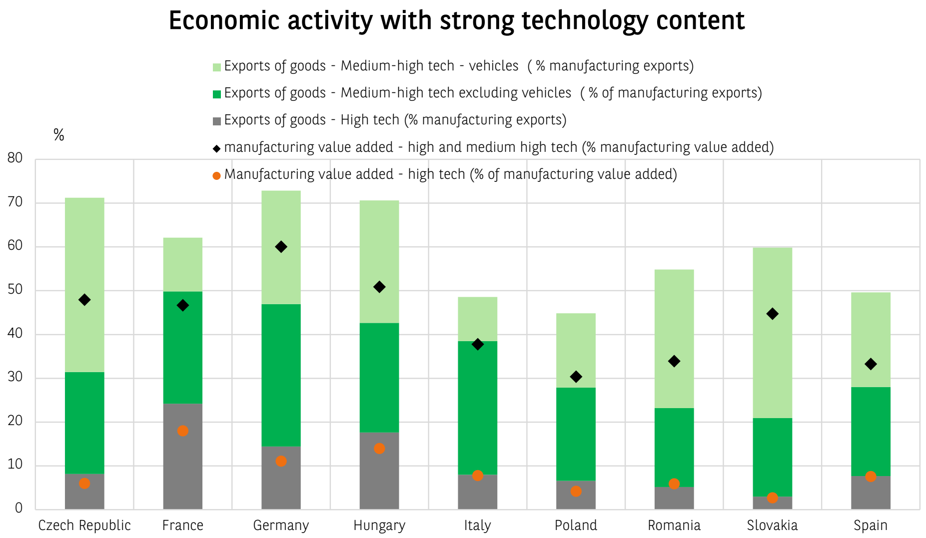

Source: Eurostat, BNPParibas. Data available for exports in 2023 except for Poland and Slovakia, data available for value added in 2022

Note: To assess high-tech activity, the standard industry nomenclature (NACE REV 2) is generally used in EU countries as it classifies manufacturing production into several groups*: 1) high-technology 2) medium-high-technology 3) medium-low-technology and 4) low-technology. For exports, there are two approaches: 1) the product approach according to the SITC nomenclature and 2) the sectoral approach according to the ISIC/NACE nomenclature. In order to make comparisons, the NACE REV 2 (3-digit) nomenclature was used for calculation of economic activity with high technological content both in 1) value added and in 2) exports. It should be noted that the ratios can also be calculated based on the SITC nomenclature (product approach). There may be differences depending on the nomenclature used.

* **Glossary: High-tech classification of manufacturing industries - Statistics Explain**

Central European countries are relatively well-positioned in industrial sectors with high technological content. However, there are differences, with regards to the respective percentages of tech products in value added and in manufacturing sector exports. The share of the high-tech sector, consisting of only three segments in the sector approach (pharmaceuticals, IT/electronics/optical and air/spacecraft), is relatively modest, but the percentage of "medium-high-technology" sector (chemicals, weapons, electrical equipment, machinery, motor vehicles, other vehicles, medical devices) is high. However, these two sectors are also very technology-intensive. "Medium-high-technology" sectors therefore need to be taken into account for a more comprehensive overview of their significance in Central Europe.

The entry of Central European countries into the EU (2004: Poland, Hungary, the Czech Republic and Slovakia; 2007: Romania) was accompanied by an influx of both European funds and of foreign capital in the form of foreign direct investment (FDI). This contributed to an upgrading of their manufacturing industry in the value chain. Contrary to popular belief, their industrial base is not confined to just the automotive sector, although this base is significant.

This chart also shows that Hungary stands out by the size of its high-tech sector (17.6% of exports from the manufacturing sector), driven by the IT/electronics/optical sector. The more moderate percentage in Czech Republic and in Slovakia may be surprising. It can be explained by the criteria applied for the sectoral approach (NACE), which includes "electrical equipment" and "machinery" items not in the high-tech segment but in the "medium-high-technology" group. These two items are particularly important for Central European countries[1]. By way of comparison, in Germany and France, the "air/spacecraft" and "pharmaceuticals" categories are significant (hence the large percentage of the high-tech sector).

1 The product approach for calculation of exports (SITC nomenclature) includes products from the "electronics", "electrical equipment" and "machinery" groups in the high-tech category. We have also performed calculations applying this approach.

What are the drivers in the short term? There is, however, no guarantee that Central European countries will hold their good position over time, especially as they are also facing increasing Chinese competition, which includes a very wide range of products, including high-tech products (Ecoweek of 19 September). To maintain their competitive advantage and continue moving up the value chain, more investments will be needed in the research and development (R&D) sector in Central European countries. Currently, R&D spending remains significantly lower than in advanced countries (Poland: 1.6% of GDP, Czech Republic: 1.8% compared to 2.2% for the euro zone).

In the meantime, European funds (as part of the Recovery and Resilience Facility and the European Multiannual Financial Framework 2021-2027) will continue to play an important role in innovation. The favourable outlook for FDI in the context of the reorganisation of production activity in developed countries of the euro zone will also contribute to this in the short term. Similarly, some Central European countries, including Hungary and Poland to a lesser extent, are still well-positioned to continue to benefit from FDI from China, although this is, for the time being, primarily being directed at the automotive sector.

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