

EU losing share in global manufacturing value chains

Headlines

- The EU's global share in manufacturing value chains declined from 27% in 2000 to 16% in 2014 in value added terms.
- > 60% of this decline can be attributed to shifts in global demand, while the remaining 40% can be interpreted as loss of competitiveness.
- The negative trend in the EU is larger than in the US or Japan and more pronounced for high-tech value chains.

Policy context

Manufacturing industries are the engine of productivity innovation, growth and exports¹. Upholding their competitiveness in global markets is therefore indispensable for job creation and improvement of living standards. However, a number of developments in the 21^{st} century have challenged the leading role of European firms in manufacturing value chains, ranging from the upgrade of production capacities in China and the lower costs of technology to successive economic crises in several EU Member States. In response, the EU has pledged to strengthen its institutional framework² and has developed a plan for promoting investment and competitiveness fostering within the manufacturing sector³.

Key conclusions

The JRC's detailed value chain approach finds that overall demand in the EU grew at a much slower pace than in the rest of the world between 2000 and 2014, and that even more pronounced this is for manufactured final products. As а consequence, the gain of economic weight of non-EU regions -particularly, but not only, China- constitutes the main driver of the decline of the EU global share in manufacturing value chains.

However, competitiveness factors have also contributed to the erosion of that share: the increasing presence of foreign value added in the output of EU firms has not been compensated by a concomitant rise of EU participation in value chains serving final demand in the rest of the world. This effect has been particularly intense for manufactures with a high technological content, and was stronger for the EU than for its competitors, despite the internal resource reallocation observable after the EU enlargement.

Further analysis of the drivers and spillovers of these developments would help prioritise policy efforts to to foster productivity and innovation within the EU, as well to define meaningful reforms in input supplier markets. Analysing the competitiveness of the manufacturing sector reauires а broad view that encompasses the whole value chain and the functioning of the Single Market⁴.

¹ DG GROW – Industrial Policy (<u>https://ec.europa.eu/growth/industry/policy_en</u>).

² Five Presidents' Report, "Completing Europe's Economic and Monetary Union" (<u>https://ec.europa.eu/commission/five-presidents-report_en</u>), State of the Union Address 2017 (<u>http://europa.eu/rapid/press-release_SPEECH-17-3165_en.htm</u>).
 ³ Investment Plan for Europe (<u>https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/investment-plan-europe-juncker-plan_en</u>), New Industrial Policy Strategy (<u>https://ec.europa.eu/commission/news/new-industrial-policy-strategy-2017-sep-18_en</u>).

⁴ On average, one euro of final demand for manufacturing products generates around 70 cents of value added outside the final producing firm, spreading across many countries and economic activities.

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Quick guide: value added in manufacturing value chains

The World Input-Output Database (WIOD, <u>www.wiod.org</u>) -a project funded by the European Commissionprovides annual data on transactions of intermediate and final products at the intercountry and interindustry level. The 2016 release covers 43 countries –including all EU Member States- and 56 economic activities over the period of 2000 to 2014. Using WIOD⁵ we compute how value added is generated worldwide by one unit of final demand of a particular manufacturing product in a given country, differentiating: 1/ direct value added in the manufacturing industry where final production takes place, 2/ indirect value added generated in other industries of the same country, including service activities, throughout the supply chain, and 3/ indirect value added generated abroad, either in EU countries or the rest of the world.

Main findings

Changes in global shares

-The value added generated for serving the global final demand of manufactures increased worldwide by an average annual rate of 4.6% between 2000 and 2014, while for the EU alone this figure was 0.6%.

-Accordingly, the EU's global share within the worldwide value added in manufacturing value chains fell by 11.4 percentage points (pp), a more acute loss than in other advanced economies, while mirroring gains in China and other emerging countries (see chart below).

Driving factors

-Demand factors account for 60% of the decline of the EU share, with the EU's dependence on its low-growth home market being the main driver. Changes in the composition of the final demand –i.e. weaker expenditure on investment and consumption of durable goods- were also detrimental for the EU.

-Competitiveness factors account for the remaining 40% -a larger contribution than in the US or Japan. They include spillover effects along value chains of declining market share as final producers (i.e. the supply chain moving out of the EU), as well as lower retention of value added per unit of output.

Global share in manufacturing value chains



Reallocation within the EU

-The value added associated with the global final demand of manufactures grew by only 0.3% per year in the EU15 compared with 4.5% in the EU13.

-The share of the EU13 countries within the EU increased by 3.9pp to 9.7% in 2014.

Employment trends

-Employment in the EU generated by the global final demand of manufactures decreased since 2000 by 6.3 million people (or 12%) to 44.4 million in 2014 (or 20% of total employment).

-The increase in productivity –due to technological progress and structural transformation in new Member States- was the main factor behind labour reallocation away from manufacturing value chains.

Industry highlights

-The EU's loss of global weight has been larger for high-tech manufacturing value chains⁶ (-12.7pp), which also show a higher contribution from competitiveness factors (close to 50%) and despite a more intense internal reallocation of resources (EU13 increasing its EU share by 4.4pp).

-Among non-manufacturing activities, EU business services⁷ were more resilient to competitive pressures and even created 1.3 million jobs serving manufacturing value chains in the period from 2000 to 2014.

Related and future JRC work

The JRC pursues an active economic research agenda in areas connected with manufacturing value chains in the EU:

-Identification of existing barriers to the functioning of the Single Market and impact analysis on competitiveness and productivity.

-Multidisciplinary groups working on the impact of technological change and external competitiveness on the labour market and inequality.

⁵ We adjust the original WIOD –in nominal USD- for price and exchange rate changes, as well as for some methodological breaks.
⁶ Manufacturing industries with a high technological content according to the OECD (<u>www.oecd.org/sti/ind/48350231.pdf</u>) correspond to chemicals, pharmaceuticals, computer and electronics, electrical equipment, machinery, motor vehicles and other transport equipment.
⁷ Business services comprise information and communication, professional, scientific and technical activities, and administrative and support services.