



EUROPEAN
COMMISSION

Brussels, 9.1.2019
SWD(2019) 1 final

PART 7/11

COMMISSION STAFF WORKING DOCUMENT

Accompanying the document

**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE
COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE
COMMITTEE OF THE REGIONS**

Energy prices and costs in Europe

{COM(2019) 1 final}

ANNEX 2 – FACTORS DRIVING ENERGY COSTS IN MANUFACTURING IN THE EU SECTORS

This annex contains the results of the energy costs decomposition analysis of the various sectors analysed between 2010 and 2015 in the Staff Working Document (see section 6.4).

The decomposition of energy costs is following the formula below:

$$\Delta \text{Energy Costs} = (\text{real}) \text{ output effect} + (\text{real}) \text{ energy intensity effect} + \text{price effect} + \text{residual}$$

Where

- **(real) Output effect:** the effect of changes in real production (GVA),
- **(real) Energy intensity effect:** the effect of changes in energy per unit of real output (GVA) over time due to energy efficiency measures, behavioural changes and industry structural change;
- **Price effects:** the effect of changes in coal, gas and electricity prices.
- The **residual**, which includes the effect of unexplained data discrepancy with Eurostat SBS data on 'purchases of energy'.

Be aware that the residual can be rather significant in some specific cases for which the results of the analysis should be taken with precaution.

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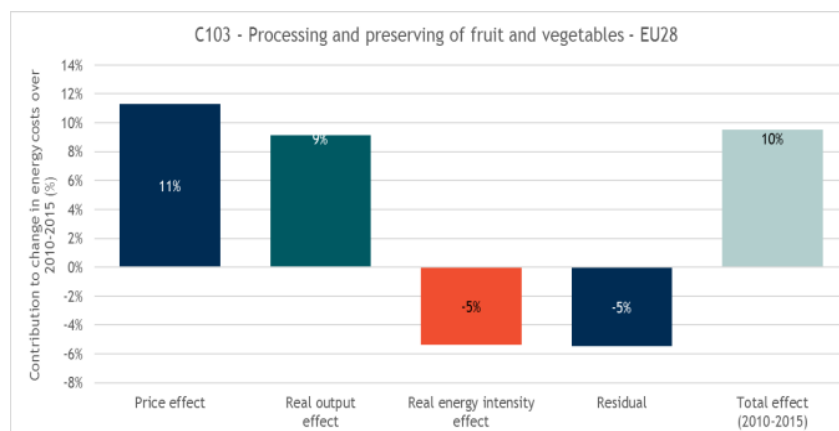


Figure 1: Fruit and vegetables

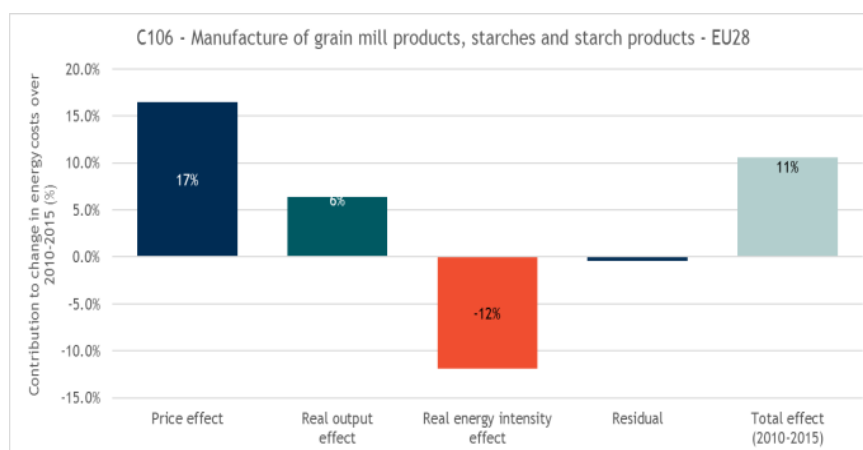


Figure 2: Grain mill and starch products

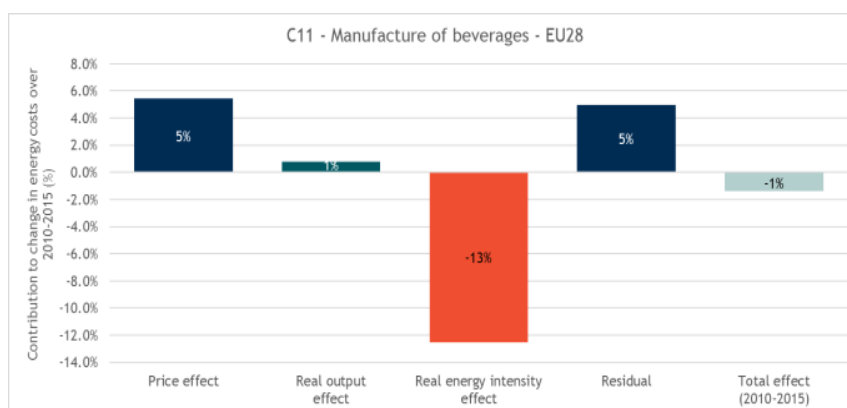


Figure 3: Manufacture of beverages



Figure 4: Textiles

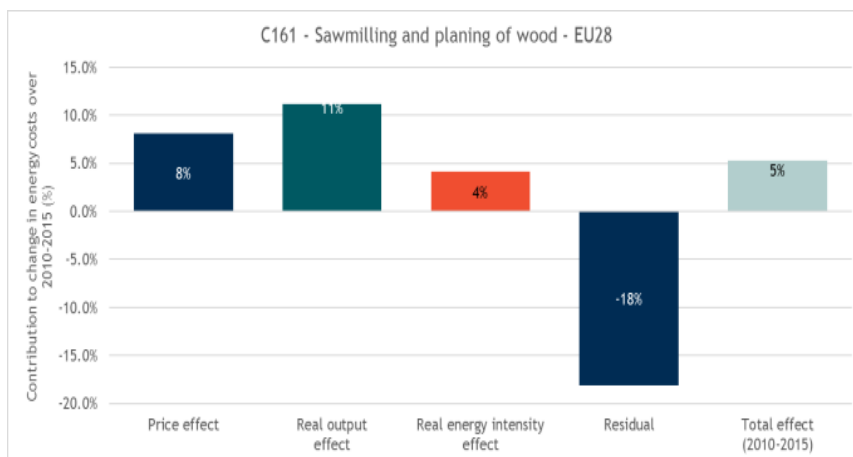


Figure 5: Wood

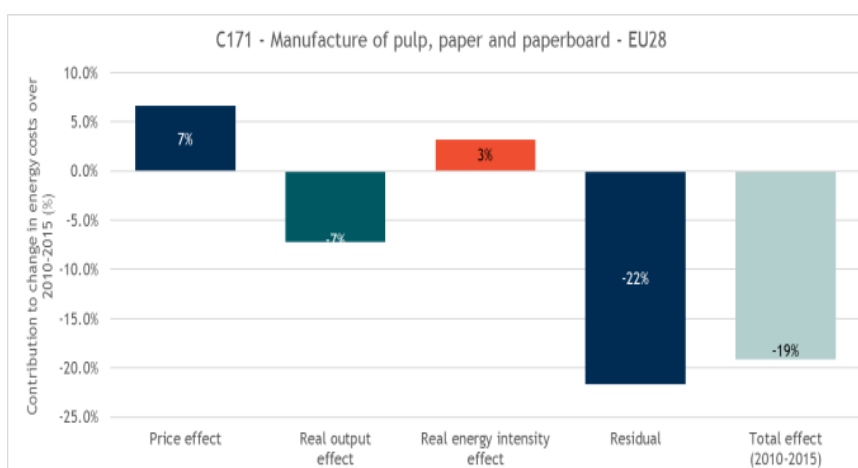


Figure 6: Pulp, paper and paperboard manufacture

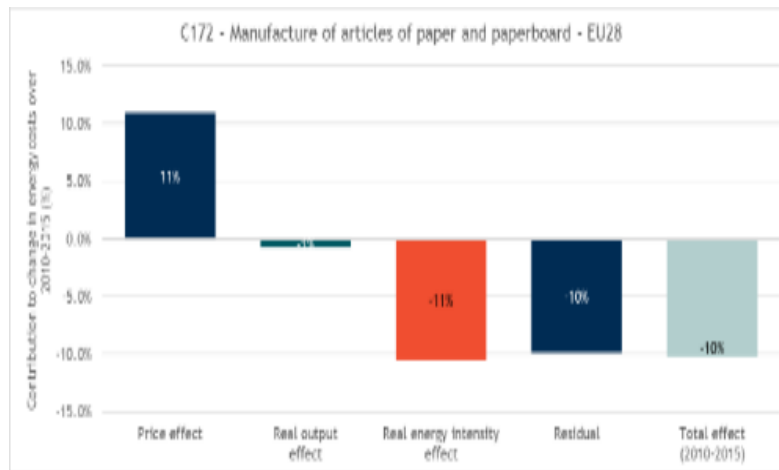


Figure 7: Paper and paperboard articles

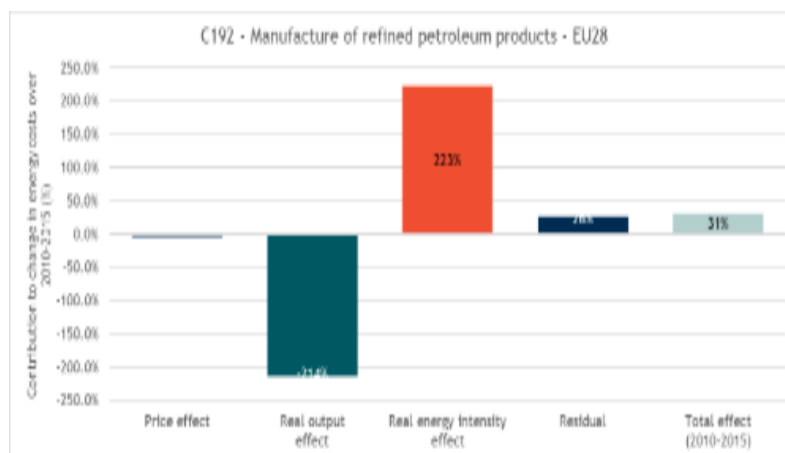


Figure 8: Refineries

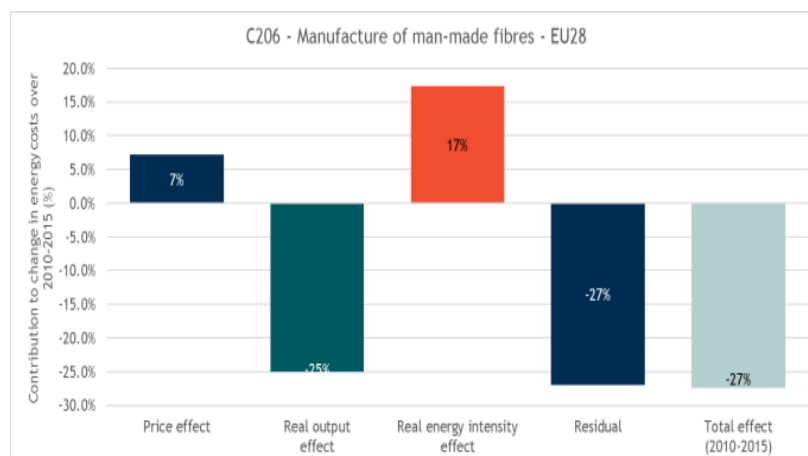


Figure 9: Man-made fibres

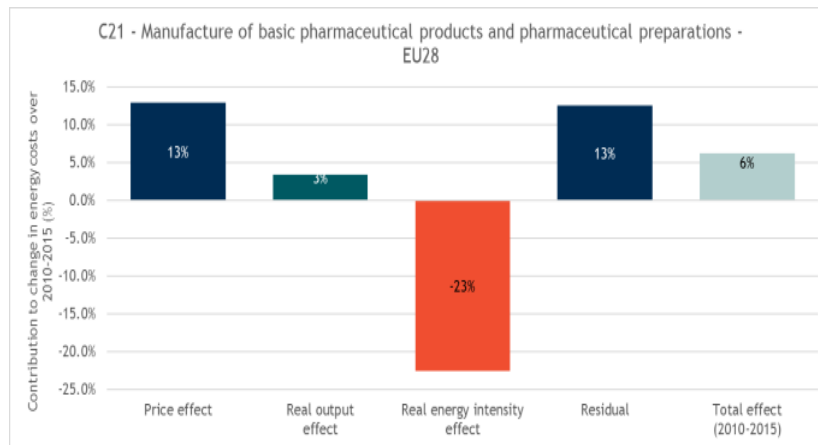


Figure 10: Pharmaceutical products

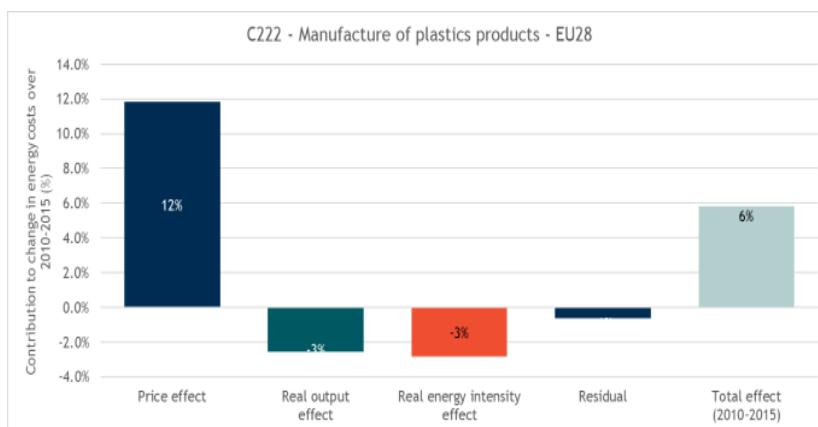


Figure 11: Plastics

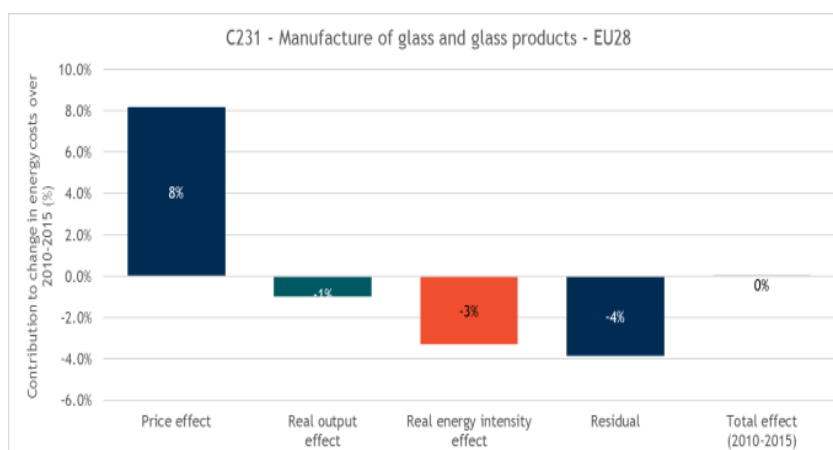


Figure 12: Glass

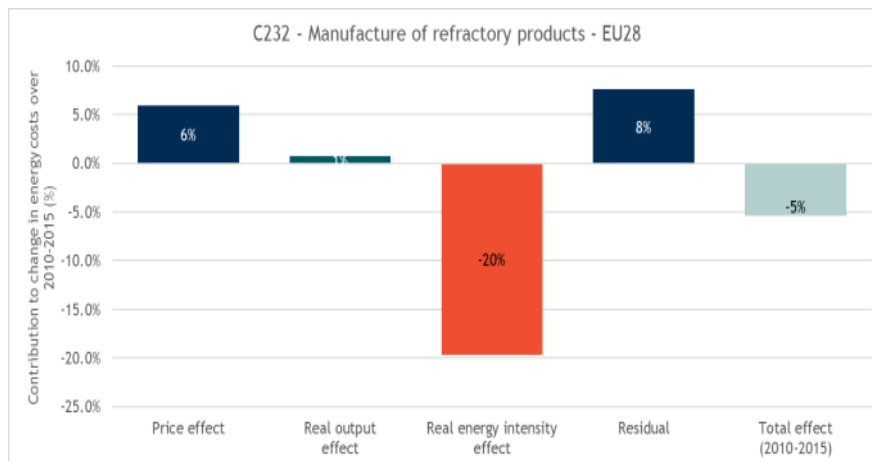


Figure 13: Refractory products

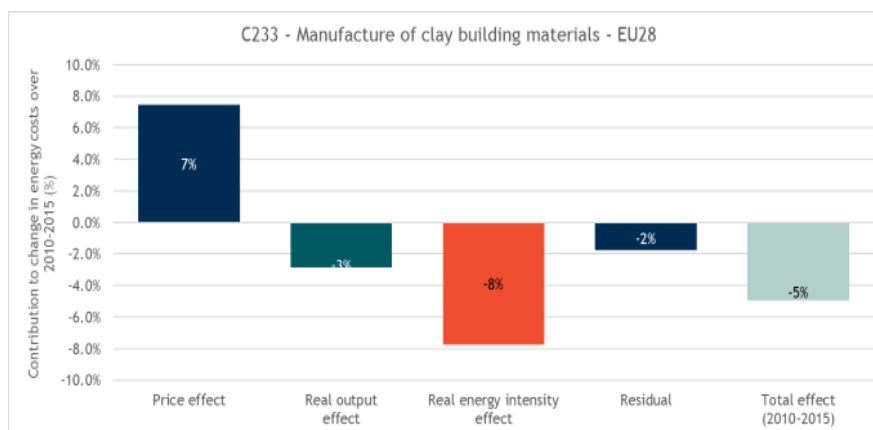


Figure 14: Clay building materials

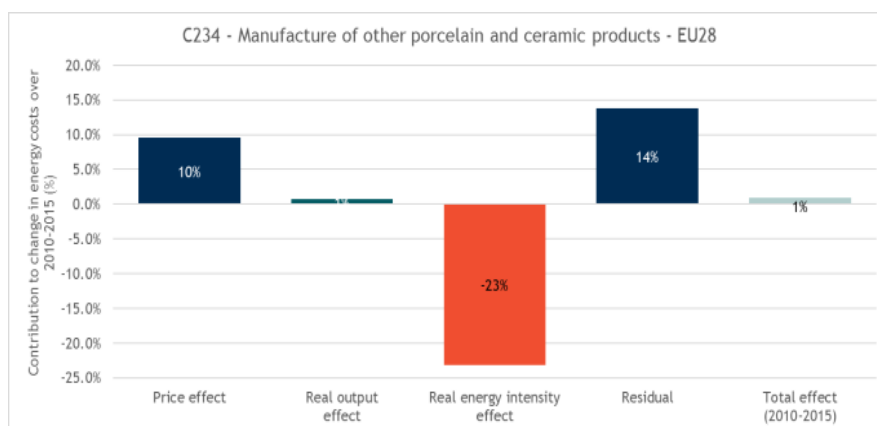


Figure 15: Ceramics

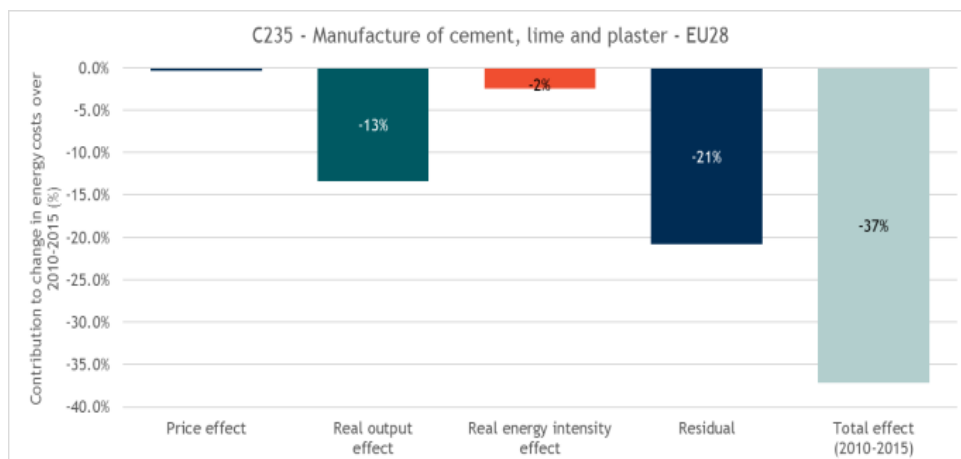


Figure 16: Cement

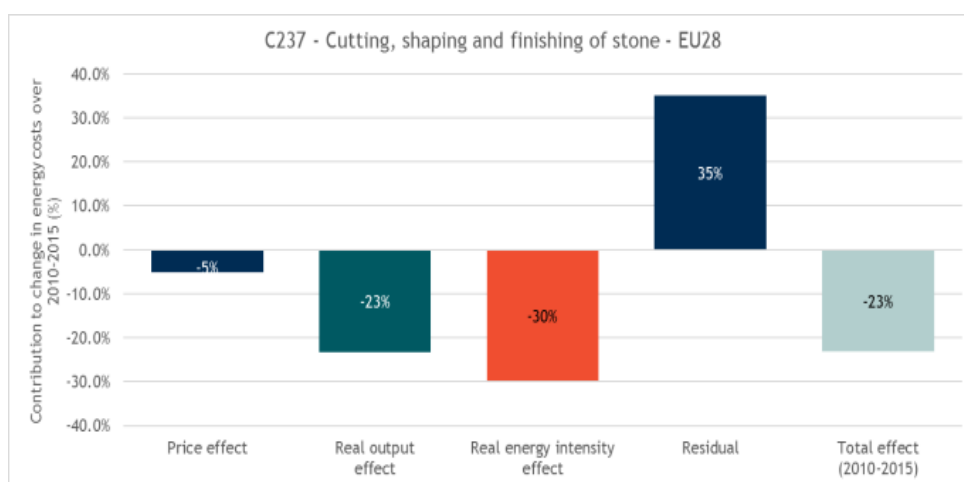


Figure 17: Stone

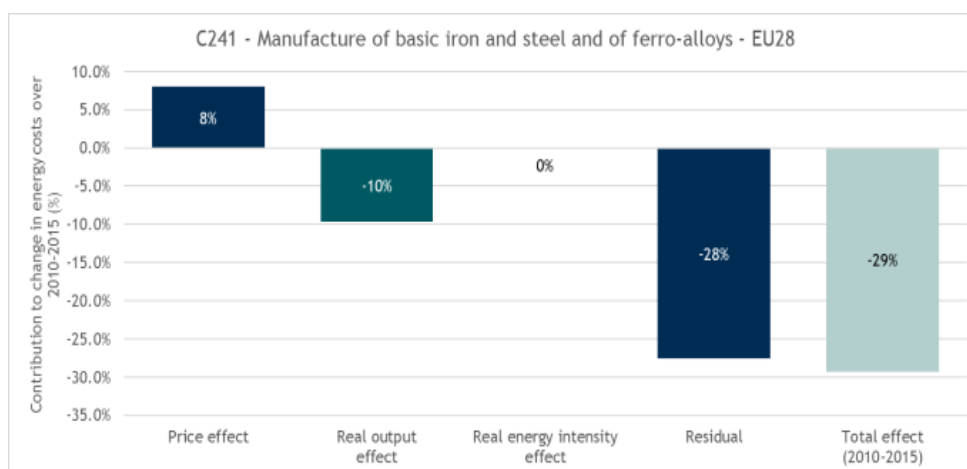


Figure 18: Basic iron and steel

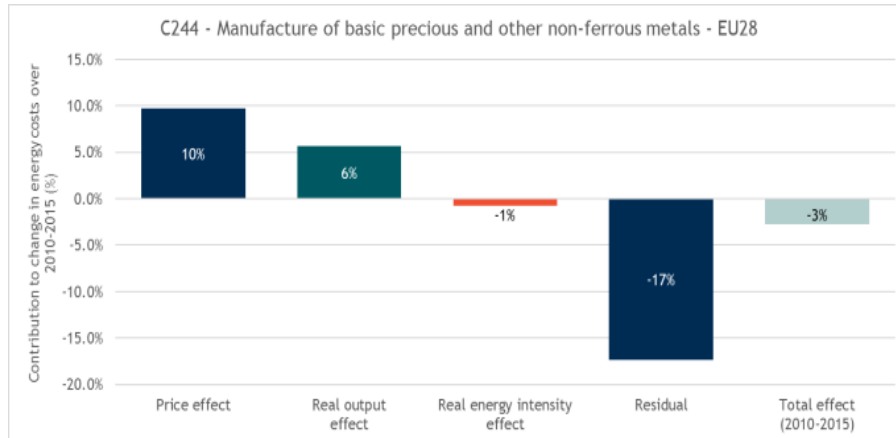


Figure 19: Aluminium

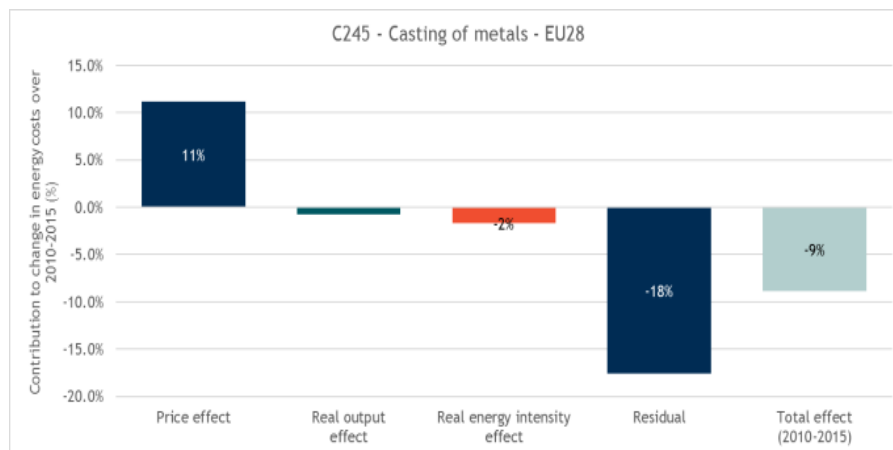


Figure 20: Casting of Metals

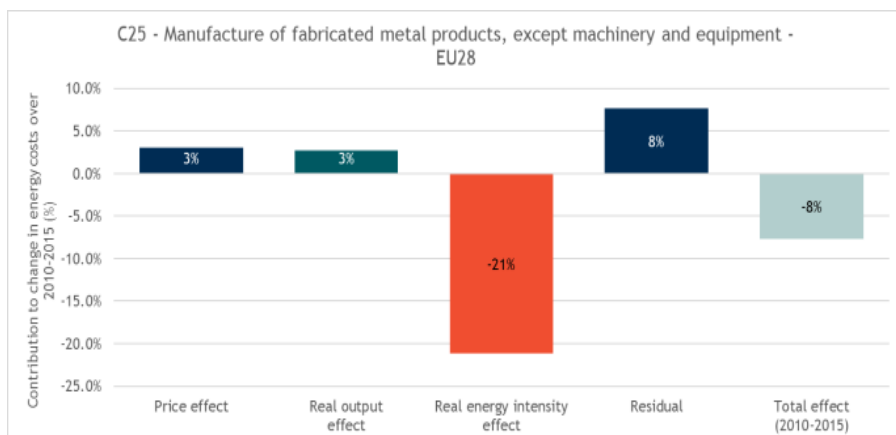


Figure 21: Fabricated metal products

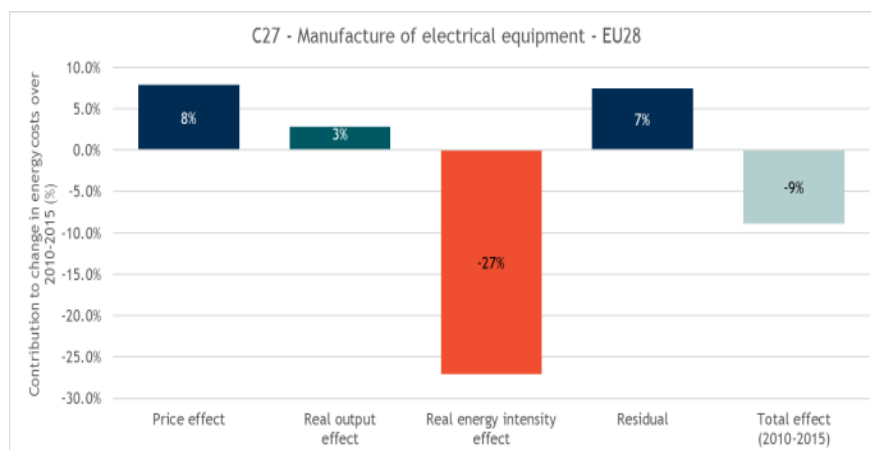


Figure 22: Electrical equipment

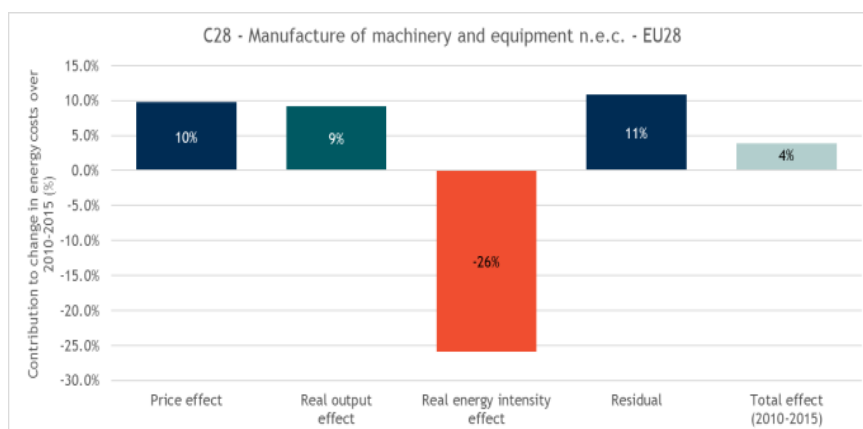


Figure 23: Machinery and equipment

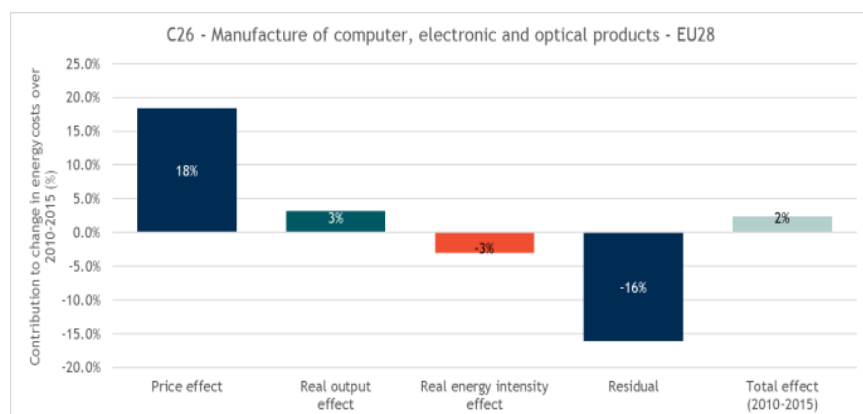


Figure 24: Computer and electronic products

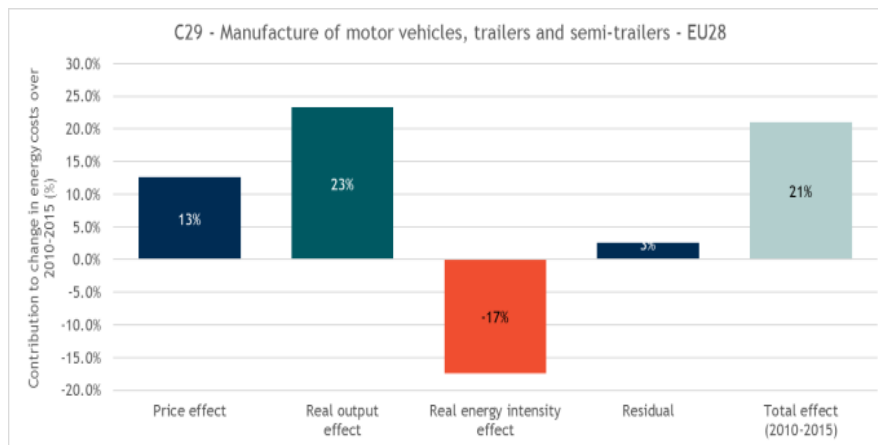


Figure 25: Motor vehicles and trailers

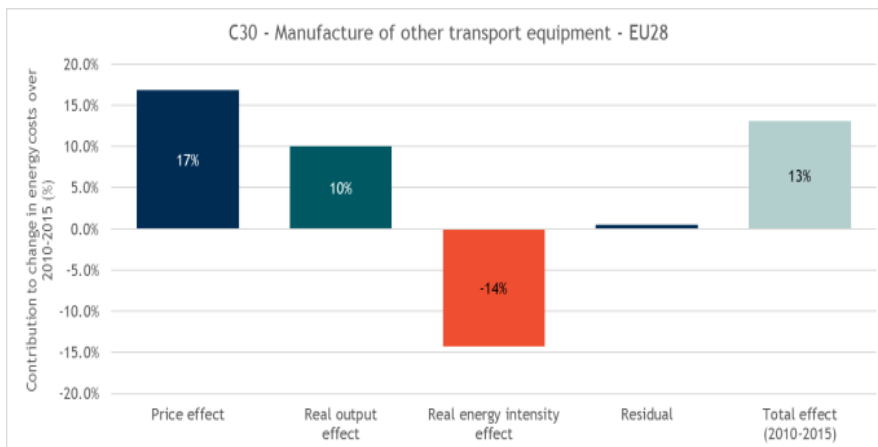


Figure 26: Transport equipment

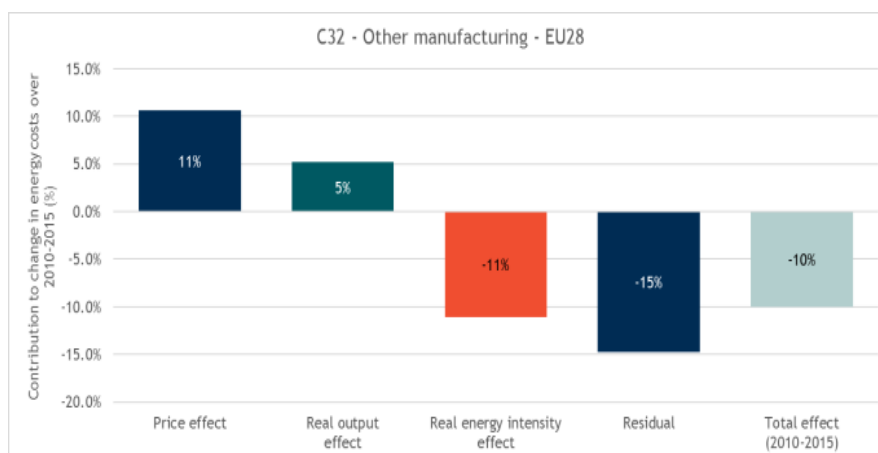


Figure 27: Other Manufacturing

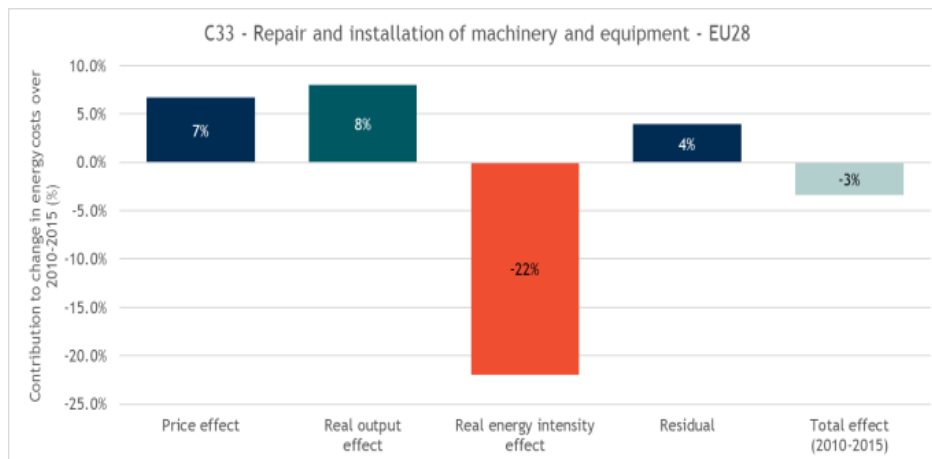


Figure 28: Machinery repair and installation