

November 2015

Technical note: low-carbon policy costs and the competitiveness of UK steel production

With closures of steel plants announced in recent weeks, the competitive position of energy-intensive industries in the UK has been much in the news. Policies to reduce carbon emissions, which have increased electricity costs to industry, have been amongst the concerns said to have contributed to problems at UK plants.

The Committee has previously looked at the issue. In our 2013 assessment of competitiveness risks we concluded that low-carbon policies had not caused any significant relocation to that point. Looking forward, we recognised that it is important that increased energy costs due to low-carbon policies should not be allowed to result in offshoring of UK industry. In our most recent progress report to Parliament¹ we noted that government plans to support affected sectors should offset up to around 80% of the costs resulting from measures to support low-carbon electricity investment.

So what has changed? Was that assessment wrong? What are the most important factors contributing to the problems facing UK steel production?

The global price of steel

The first thing to be aware of is that the international price of steel has fallen by around 60% over the past 4 years (Figure 1).

This has nothing to do with UK energy prices.

Figure 1:

Price of steel Mar 2009-Oct 2015



Source: Bloomberg/BBC

¹ <https://www.theccc.org.uk/publication/reducing-emissions-and-preparing-for-climate-change-2015-progress-report-to-parliament/>

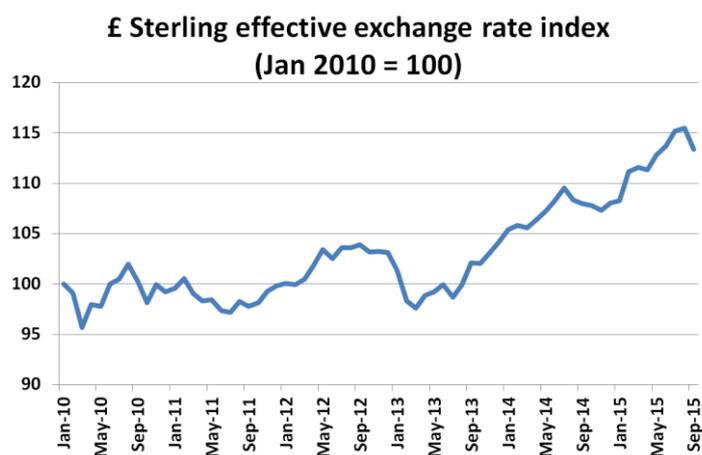
China is the world's largest producer, and consumer, of steel. Latest figures from the World Steel Association show that it produced 779m tons of steel in 2013, compared with 12m tons in the UK, and 154m tonnes in the rest of the EU. The slowdown in the Chinese economy has produced massive over-capacity in worldwide production. According to one recent source², there is over-capacity in China of around 300m tons. That over-capacity, and exports from China of around 110m tons annually, dwarf production in the UK. The result has been the decline in the international price.

The problems have been compounded for UK plants like Scunthorpe and Redcar because the products they produce tend not to be high-value – they compete mainly on price.

Appreciation of sterling

Compounding this price reduction has been an appreciation of the pound – by around 15% over the past 2 years (Figure 2). This has made it even harder for UK-produced steel to compete.

Figure 2:



Source: Bank of England, <http://www.bankofengland.co.uk/statistics/Pages/default.aspx>

² <http://www.lse.ac.uk/GranthamInstitute/news/is-going-green-hurting-british-steel/>

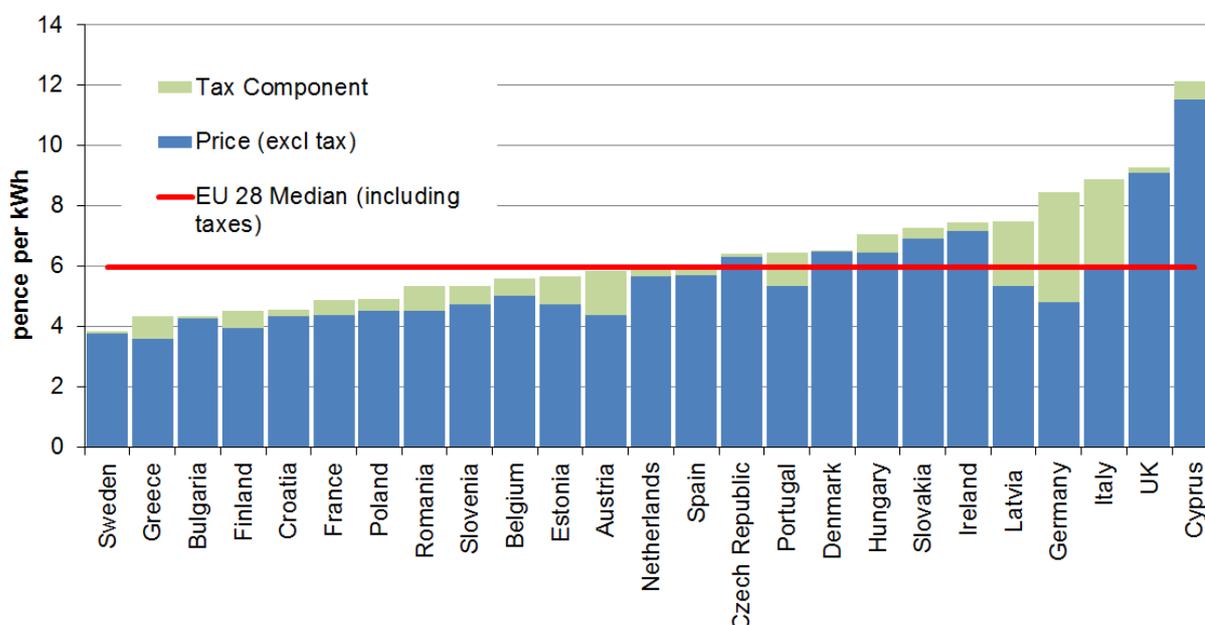
Electricity prices in the UK

Steel producers face EUETS costs for their direct use of fossil fuels. However, they also receive a free allocation of allowances under the EUETS and estimates suggest this has more than covered that direct cost.

The impact of low-carbon policy on electricity costs has therefore been cited as potentially the bigger impact.

For large industrial users the price of electricity is relatively high in the UK (Figure 3). Across the EU, 2014 data shows the UK price the highest of major economies across the EU (2nd only to Cyprus across all member states) and well above the median.

Figure 3: Industrial electricity prices across the EU for extra-large users (p/kWh, 2014)



Source: DECC, *International industrial energy prices*.

Available at: <https://www.gov.uk/government/statistical-data-sets/international-industrial-energy-prices>

Within the prices shown for the UK, around one-third of the price reflects low-carbon policy costs. However, this element should be largely compensated for by measures announced by the Government:

- Compensation for the EUETS and carbon price support feed through to electricity prices is in place and agreed through to 2019-20. The compensation scheme currently covers up to 85% of these costs;

- Compensation for Renewable Obligation and Feed-in-Tariff costs has been agreed by the Government. It awaits State Aid clearance before it comes through;
- Exemption from costs attached to Electricity Market Reform/Contracts for Differences has been agreed.

Before allowing for compensation, low-carbon policy costs, for integrated producers, such as Redcar and Scunthorpe, amount to around 2% of overall costs:

- Around 6% of blast furnace costs reflect electricity costs;
- Allowing for one-third of that electricity cost to reflect low-carbon policy, this equates to around 2% of overall costs.

After compensation already in place, the impact is much reduced, and this cost will decline further assuming state aid clearance for RO/FITs costs comes through.

Of course, when margins are tight even an impact of the order of 1% might be said to be material, but this is clearly a different order to the impacts deriving from the reduced international price of steel and sterling appreciation.