Macro*Plus*
Comment

Tough love

- *Not all regulations are desirable at the country level, but some are*
- *Regulations impact firms asymmetrically and often raise competitiveness concerns*
- *Economic reasoning and empirical evidence suggest that such concerns are often overplayed*
- *Lax regulations can be detrimental to firms and countries over the long term*
- *'Tough love'[1] enhances productivity and drives vital structural change*

Creative destruction

It is a generally-accepted role of government to regulate where the social benefit from so doing is reckoned to exceed the private cost: hence, for example, the many regulations to drive efficiency, whether of carbon usage, energy consumption, or resources more generally.

Regulatory costs are often narrowly focused

The impacts of regulation – as of structural reform more broadly – are asymmetric. Whereas the costs are immediate, narrowly focused, and often fall upon incumbent firms with vested interests, the benefits typically are thinly spread, and tend to accrue only slowly.

Firms, therefore, tend to oppose them

Opposition from firms can be strong, and the lobbying powerful, often accompanied by claims that they risk being put out of business – whether as a result of activity moving elsewhere (e.g. to locations with lax regulations, as with so-called 'carbon leakage' due to differential climate policies), or by additional regulatory costs rendering businesses uncompetitive internationally.

Economic reasoning suggests impacts will be small

Regulations, however, when carefully designed and implemented within suitable timescales and by transparent and accountable institutions, do not generally have particularly large negative effects on firms and specific sectors. And such regulations typically impinge on only a small portion of firms' total costs.

Recent empirical studies confirm this

Recent empirical studies of carbon and energy policies – generally focused on the impacts of EU policy, including the EU Emissions Trading System – confirm this: impacts, whether in terms of carbon leakage, economic growth, employment, or consumer prices, have thus far at least generally been small.[2]

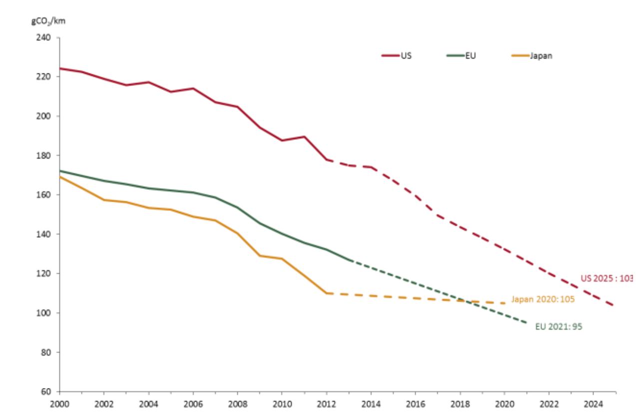
Swimming with the tide

A firm's decision to relocate has many considerations

That the impacts, including importantly the risk of relocation, have generally been smaller than incumbent-hype might suggest is perhaps not surprising. Energy costs are only one consideration amongst many in a firm's decision-making process. To gain some perspective:

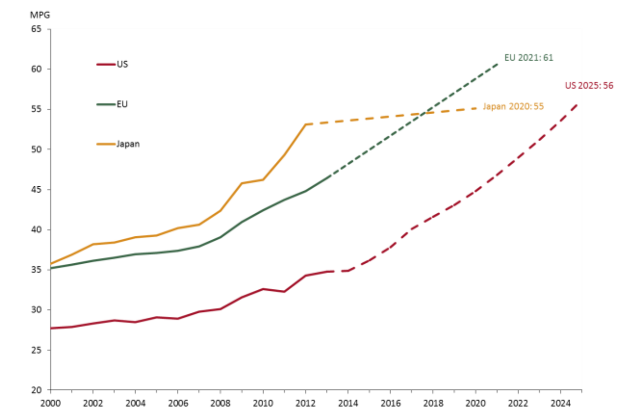
- UK businesses spent less than 6 per cent of their total variable costs, or around 12 per cent of gross value added (GVA), on energy in 2011.[3]
- Labour costs, by contrast, were almost 30 per cent of variable costs[4] (60 per cent of GVA).[5]

Figure 1: Car tailpipe CO_2 emissions per kilometre, selected regions



Source: ICCT (2014)
Notes: Solid lines – historical performance; Dashed and dotted lines – proposed targets.

Figure 2: Car tailpipe miles per gallon (mpg), selected regions



Source: ICCT (2014)
Notes: Solid lines – historical performance; Dashed and dotted lines – proposed targets.

Other factors including access to markets, skills, technologies, raw materials, and the wider business environment also influence location decisions: German-based manufacturing remains competitive despite having substantially higher wage costs than say, China.

Other countries' regulations will likely tighten

Moreover, it is unlikely that other countries' regulations will remain static:

- A recent study by Globe International[6] shows that more and more countries are introducing climate change legislation. Close to 500 climate laws have been passed in the 66 countries covered by the study, including important in virtually all of the world's largest-emitter countries.

Preparing for the future

Regulations oblige firms to adapt

Policymakers are also likely to take other, potentially quantitatively important, considerations into account. Regulations, provided they are made in the light of a reasonably accurate view about the future, can encourage developments that lead firms to be better able to face that future. Thus unless firms are willing to roll over and die, regulations – provided, of course, that they are not absurdly onerous – incentivise them to adapt and innovate: regulation as a form of 'tough love'. Two examples:

- EU grams-per-kilometre targets for passenger cars have induced a wave of innovation, resulting in ever-improving ranges of fuel-efficient cars across Europe. The 130 g/km 2015 target, which seemed extremely challenging when introduced in 2009, was met two years early[7] (Figure 1);
- In the US, by contrast, where gasoline taxation has long been kept low due to consumer and car-industry pressures, strides in fuel efficiency have been far less impressive than in Europe and Japan (Figure 2). When the Global Financial Crisis hit, and the desirability of fuel-efficient vehicles rose to the fore, the less-than-nimble US car industry was hit particularly hard. Energy policy was a key but yet largely unheralded factor in the bankruptcies of Chrysler and General Motors in 2009.[8]

New products will be increasingly demanded globally

Cutting-edge products and technologies developed in response to regulatory incentives are likely to be increasingly demanded globally, particularly as other countries play regulatory catch up and implement similar policies. A classic example:

- Vestas of Denmark produced its first wind turbine in 1979, and has over the past 30-odd years, incentivised by government policy, built up its expertise. Today the company's technology is being sold around the world: the firm has developed projects in 35 countries, installing 60GW of capacity, which is close to one-fifth of total global wind-generating capacity.[9] Moreover, Denmark now produces around one-third of its electricity from wind generation.[10]

Conclusion

'Tough love' could be the best route to enhance productivity

Taken together, reasoning and empirical evidence suggest that incentives for firms to be more efficient in their energy, carbon, or wider resource use will in many cases lead them to develop new technologies. Such improvements and breakthroughs play an important role in further driving economic productivity gains in a highly-competitive world, where resource costs are likely to rise long term as populous regions industrialise. Moreover, such technologies stand also to drive structural change in low-carbon and resource-efficient economies.

Lax regulations will harm country and company interests

Resisting enduring change and innovation may not be in a firm's or country's long-term interests.

'Watch fors'

Three broad developments that would be of particular significance were they to happen:

- First, countries' regulations inducing technology and innovation, boosting rather than hampering sectoral competitiveness;
- Second, specific companies succeeding and responding with new breakthrough technologies in countries with the most demanding regulations; and
- Third, companies selling their once niche technologies globally. ■

Disclaimer

[1] The inspiration for this piece came from the paper: Bassi, S., and Zenghelis, D., 2014. *Burden or opportunity? How UK emissions reductions policies affect the competitiveness of businesses*. Policy paper. Centre for Climate Change Economics and Policy & Grantham Research Institute on Climate Change and the Environment.
[2] Ibid.
[3] Close to £160bn.
[4] Around £820bn.
[5] ONS, 2013.
[6] Globe International, 2014. See: http://www.globeinternational.org/studies/legislation/climate
[7] European Commission, 2014. See: http://ec.europa.eu/clima/news/articles/news_2014043001_en.htm
[8] Bassi, S., and Zenghelis, D., 2014. *Burden or opportunity? How UK emissions reductions policies affect the competitiveness of businesses*. Policy paper. Centre for Climate Change Economics and Policy & Grantham Research Institute on Climate Change and the Environment.
[9] Vestas, 2014. See: http://www.vestas.com/
[10] See: http://www.windpower.org/en/