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Carbon pricing in the UK post-Brexit: tax or trade?

A discussion paper

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Is it time to for the UK to leave the EU ETS?

Poised to leave the EU, the UK has important choices to make about greenhouse gas regulations for the sectors covered by the EU Emissions Trading Scheme (ETS) – the electricity generation and heavy industry sectors. There are several reasons to consider a change:

Jurisdiction: The EU ETS legislation falls under the jurisdiction of the European Court of Justice (ECJ), a conflict with the terms of the UK's Brexit negotiations[1] which foresees a departure from the ECJ.

Ambition: The UK's carbon reduction targets are already more ambitious than the caps in the EU ETS. Even if the UK were to remain in the scheme, which covers approximately a third of UK greenhouse gases emissions, more stringent policies might be needed – in any sector – to meet these targets[2 i].

Simplification: The UK is striving to simplify its carbon pricing policy. The government has committed to having just one carbon price after 2021[3], a commitment that might be easier to achieve outside the EU ETS.

Limitations: The EU ETS has several limitations. The decision-making process to reform the policy is slow and can be unduly influenced by self-interested parties[4]. The policy is not very resilient to unexpected changes in production levels. For example, the cap – or market size – for 2013-2020 was set on pre-financial crisis growth projections, leading to a surplus of emissions rights which are unlikely to be eliminated before the mid-2020s[5].

The UK has a number of policies that try to use an economic signal – a carbon price – to stimulate reductions in greenhouse emissions. Such policies include participation in the twelve-year old EU ETS, in which the UK makes up about 10% of the market. The UK's carbon price floor sets a lowest price for electricity generators in the ETS, to stabilise volatile carbon market prices. The UK also has a tax – the Climate Change Levy that, together with its exemptions, attempts to provide carbon price certainty for businesses. What should the UK do, in light of its departure from the EU, and therefore possible departure from the EU ETS? The maintenance of the status quo is arguably the simplest, cheapest option for the UK, given money already spent on participating in the scheme, and access to low-cost options for emissions reductions[6]. However, this could also be a good time for reform and innovation, aligning carbon-pricing policy with long-term climate, industrial and economic goals. It is also not clear how complex maintaining the status quo might be if the UK is outside the ECJ.

Making choices: opportunities from change

Although there are many dissenting views on the relative merits of markets, like the EU ETS, vs taxes for carbon pricing, there is a lack of data from existing policies to corroborate theoretical studies suggesting the benefit of one over the other.

Revenue: A robust carbon pricing policy, can raise revenue for the public purse[7], integrate with future plans for the UK's tax system (including R&D tax cuts and the Industrial Strategy Challenge Fund[4]), and align with the current policy focus on protecting the poorest and most vulnerable energy consumers[8], through calibrated rebates and tax cuts[9]. This goal can be achieved either through a UK ETS, a UK-wide carbon tax or a hybrid scheme. In existing schemes globally, most non-earmarked carbon pricing revenue comes from carbon tax schemes, while most revenue earmarked for specific purposes – such as environmental initiatives – comes from ETSs[9].

A new UK ETS: The implementation of a UK ETS, while feasible in isolation, could open opportunities to link with other ETSs. The UK developed its own, voluntary ETS in the past, which provided some lessons for future developments. The EU would provide the simplest linking option[10], but the Western Climate Initiative (WCI) could also

i Dependent on the final system used to account for emissions in the traded sector against UK targets.

1 British Broadcasting Corporation. (2017). Brexit at a glance: What we learned from Theresa May – BBC News. Retrieved March 28, 2017, from http://www.bbc.co.uk/news/uk-politics-38641207

2 Hoskins, B., Johnson, P., & King, J. (2016). Meeting Carbon Budgets – Implications of Brexit for UK climate policy. The Committee on Climate Change.

3 Martin, R., Colmer, J., & Dechezleprêtre, A. (2015). Energy and the Environment : a cold climate for climate change policies? CEP 2015

4 de Perthuis, C., Solier, B., & Trotignon, R. (2016). Policy Brief #2016-01 How should the EU ETS be reformed following the Paris agreement and Brexit? Chaire Economie du Climat.

5 Elkerbout, M. (2017). The EU Emissions Trading System after 2020: Can the Parliament's Environment Committee achieve its ambitions? CEPS Policy Insights.

6 Doda and Taschini (2017) http://www.lse.ac.uk/GranthamInstitute/news/should-the-uk-stay-or-should-it-go-the-consequences-of-a-divorce-with-the-eu-ets/

7 Convery, F. J., Dunne, L., & Joyce, D. (2013). Ireland's Carbon Tax and the Fiscal Crisis: Issues in Fiscal Adjustment, Environmental Effectiveness, Competitiveness, Leakage and Equity Implications. OECD Environmental Working Papers.

8 Business Green. (2016). DECC unveils transition plan for ECO energy efficiency scheme. Retrieved March 28, 2017, from http://www.businessgreen.com/bg/analysis/2463275/decc-unveils-transition-plan-for-eco-energy-efficiency-scheme

9 Carl, J., & Fedor, D. (2016). Tracking global carbon revenues: A survey of carbon taxes versus cap-and-trade in the real world. Energy Policy, 96, 50–77.

10 Ranson, M. & Stavins, R. N. (2016). Linkage of Greenhouse Gas Emissions Trading Systems: Learning from Experience. Climate Policy, 16(3), 284–300.

be an option. Linking with the Chinese national ETS seem improbable, or at least very far in the future[11]. The benefits of international cooperation under a new linkage must, however, be weighed against the high capital costs incurred by extensive international negotiations[12].

The hybrid option: Most jurisdictions operate hybrid carbon pricing schemes[13], which are part tax, part trade. The UK already has a hybrid through the EU ETS, carbon price floor, and Climate Change Levy[14], which it should build upon using recent lessons from carbon pricing schemes around the world. The UK's existing carbon tax infrastructure can be repurposed to an economy-wide carbon tax, limiting the administrative burden of policy reform[9] and offering more carbon price certainty to businesses[5]. Successfully building on the experience and infrastructure of a hybrid scheme would also limit pressure from special interest groups, such as industry lobbyists.

Aligning monitoring approaches: Data-driven monitoring and evaluation methods could be built into a new carbon pricing policy. These could be based on existing EU ETS Monitoring, Reporting and Verification systems and aligned with the UK's reporting requirements under the United Nations Framework Convention on Climate Change (UNFCCC)[15]. They could include a requirement for firms to disclose their emissions and financial risk exposure to energy and environmental transition[16].

11 Though carbon pricing is included in the fiscal reform of 13th Five Year Plan, the specific form it will take is still uncertain. Source: HM Treasury (2017).

12 Doda, B., & Taschini, L. (2016). Submission to the inquiry by the Energy and Climate Ch ange Committee inquiry on "Leaving the EU: implications for UK climate policy". Baran Doda and Luca Taschini Policy paper September 2016 ESRC Centre for Climate Change Economics and Policy, (September).

13 World Bank. (2014). State and Trends of Carbon Pricing. Washington, DC: World Bank. (Vol. 88284). https://doi.org/10.1596/978-1-4648-0268-3

14 Defra (2006). http://webarchive.nationalarchives.gov.uk/20130822084033/http://www.defra.gov.uk/Environment/climatechange/trading/uk/pdf/ukets1-4yr-appraisal.pdf

15 CCC (2016). https://www.theccc.org.uk/wp-content/uploads/2016/10/UK-climate-action-following-the-Paris-Agreement-Committee-on-Climate-Change-October-2016.pdf

16 Such as France's 2015 Energy Transition Law Source: World Bank (2016).

Innovation gains: Carbon pricing schemes around the world have been shown to have incentivised the development and roll-out of environmentally-friendly technology, which tends to have more positive knock-on effects for the economy than similar innovation in 'dirty' technologies[17]. The UK has an opportunity to become an international leader in clean energy[18].

Timing: The careful phasing-in and phasing-out of carbon pricing policies is key to maintaining trust and confidence from individuals and businesses. The failure of Australia's carbon pricing scheme is at least partly due to its overnight launch and resulting economic shock[19], while British Columbia's slow phase-in with gradually increasing carbon tax rates, contributed significantly to the continued success of the programme[20]. This vital aspect of future policy success must be aligned with potentially numerous policy reforms following the UK's exit from the EU.

The launch of a new carbon pricing policy needs to be carefully timed, to gain political and public acceptance[8,21]. Reforming carbon pricing policy at a time of uncertainty in exiting the EU is risky. Carbon pricing ought to show continuity and clarity to businesses, and leaving the EU ETS without an agreed and robust alternative will send inconsistent signals. The EU ETS also has a natural policy cycle – with a clear break point at the end of Phase 3 at the end of 2020, for example. Any changes should consider these cycles.

17 Muûls, M., Colmer, J., Martin, R., & Wagner, U. J. (2016). Evaluating the EU Emissions Trading System : Take it or leave it ? An assessment of the data after ten years. Grantham Institute Briefing Paper No. 21, London, United Kingdom.

18 Martin, R., Colmer, J., & Dechezleprêtre, A. (2015). Energy and the Environment : a cold climate for climate change policies. CEP 2015 Election Analysis Series. Retrieved from http://cep.lse.ac.uk/pubs/download/EA032.pdf

19 Jotzo, F., & O'Gorman, M. (2014). Impact of the carbon price on Australia's electricity demand, supply and emissions. CCEP Working Paper 1411, Crawford School of Public Policy, Australian National University.

20 Thomsen, D. R. (2014). Do Market-Based Mitigation Policies Work? Analyzing the Impacts of the British Columbia Carbon Tax on Provincial Level Carbon Emissions. MSc Thesis, Georgetown University, Washington D.C., United States of America.

21 IEA. (2007). Climate Policy Uncertainty and Investment Risk. Energy, 17(7), 144. https://doi.org/http://dx.doi.org/10.1016/j.bbr.2011.03.031.

Policy Recommendations

To achieve success, the UK's policies should build on its carbon pricing history to offer the necessary long-term certainty in a pragmatic and streamlined manner. While the relative merits of ETSs and carbon taxes are still subject to debate, hybrid carbon pricing schemes have become a default around the world, including the UK, to a level of success dependent on the economic and political climate of the jurisdiction. A carefully built hybrid that provides clear price signals, might be the best policy option for the UK in the longer term. However, to provide certainty, the UK might also consider the option of staying in the EU ETS whilst being outside ECJ rule.

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