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Coordinating UK trade and climate policy ambitions: A legislative and policy analysis

Emily Lydgate and Chloe Anthony

Abstract

The UK Government has pledged to achieve net-zero carbon emissions by 2050 but also champion open multilateral trade and pursue new trade relationships with geographically distant partners. The dynamism of policymaking in both areas, as the UK leaves the EU, provides a useful case study for the larger question of how to reconcile liberal trade policy with a net-zero target. After setting out the relevance of trade policy to the climate target, we examine areas at their intersection: current and proposed UK green subsidies, regulatory trade barriers, potential carbon border adjustment, fossil fuel subsidies and free trade agreements. We apply two analytical tests, compliance with relevant World Trade Organisation obligations and coherence with the net-zero climate target. The analysis is hindered by uncertainty, primarily regarding the extent of future global climate ambition, but there are clear areas in which the UK could strengthen its approach to climate change mitigation without undermining its commitment to open trade. However, barring a major increase in global ambition, achieving the net-zero target will likely require new trade restrictions. The implication is that, rather than being situated at the margins, the climate target must comprise a central objective of trade strategy.

Introduction

An existential question facing the UK Government is whether, and how, it can be world-leading both in promoting liberal trade and achieving its net-zero climate target. As the UK leaves the EU, the Government has positioned the UK as a champion of the World Trade Organisation (WTO) and open multilateral trade. It is negotiating or re-negotiating over 40 free trade agreements (FTAs).¹ Both the WTO and FTAs provide legal principles and an institutional framework to facilitate the free movement of goods and services and restrict trade-distorting subsidies. Conversely, the UK's commitment to achieve net-zero carbon emissions by 2050 will entail national standards that complicate this free movement and require government intervention through subsidies. Differences in intrinsic logic and objectives mean that potential for friction between trade and climate goals is high. While

¹ HM Government, Department for International Trade. Available at: <https://www.gov.uk/guidance/uk-trade-agreements-with-non-eu-countries>

the UK Government has indicated interest in an integrated approach in some areas, it lacks a cross-cutting strategy, and the legal framework for climate policy is restricted to a domestic focus.

A body of academic literature delves into the relationship between international trade rules and climate policy, notably in the areas of green subsidies² and border carbon adjustment.³ But there are few analyses examining the relationship of policies across national net-zero targets and trade law and policy. The UK makes a particularly interesting case study for such an analysis. As it leaves the EU, the UK is for the first time formulating an independent trade policy at the same time as it commits to a net-zero target; the sheer volume of policy formation in these areas requires critical analysis, particularly in respect of the issue of integration of trade and climate policy.

In this article, we first take stock of the role of trade policy in achieving the UK's net-zero emissions target and the extent to which WTO rules provide an impediment. We then undertake a broad survey of selected UK green and fossil fuel subsidies and regulatory trade barriers. We consider renewable energy subsidies, green investment and the UK approach to carbon pricing and assess the potential for introducing border carbon adjustment taxes and climate targets into free trade agreements. In each area we foreground two challenges: compliance and coherence. Compliance refers to conformity with WTO rules underpinning the UK's commitment to open and liberal trade. Coherence refers to ensuring trade patterns and trade policy do not undermine climate change mitigation, even if falling outside the direct remit of the UK Climate Change Act's⁴ domestic focus. In so doing, we aim to counteract a tendency in both the academic and policy communities to separate trade and climate policy or to examine them in terms of narrow thematic issues rather than across the policy spectrum.

This analysis, which is broad but not comprehensive,⁵ is subject to significant uncertainty. This stems from the speed at which renewable technologies lower in price, rendering

² Eg, S. Shadikhodjaev 'Renewable Energy and Government Support: Time to 'Green' the SCM Agreement?' (2015) 14(3) *World Trade Review* 479; L. Rubini, 'Ain't Wastin' Time No More: Subsidies for Renewable Energy, The SCM Agreement, Policy Space, and Law Reform,' (2015) 15(2) *J Int Econ Law* 525; I Espa, G Marín Durán, 'Rethink the case for reform beyond Canada – Renewable Energy/Fit Program' (2018) 21(3) *J Int Econ Law* 621.

³ Eg, P. Holmes, T. Reilly, J. Rollo, Border carbon adjustments and the potential for protectionism (2011) 11(2) *Climate Policy* 883; S. Monjon and P. Quirion, A border adjustment for the EU ETS: reconciling WTO rules and capacity to tackle carbon leakage (2011) 11(5) *Climate Policy* 1212.

⁴ This domestic focus is examined in the subsequent section.

⁵ Notable omissions are liberalisation of environmental goods, anti-dumping duties or issues specific to trade with developing countries.

subsidies unnecessary; the UK legal framework for subsidies, which remains undefined;⁶ the extent to which the UK will depart from the EU climate policy and legislation that acts as its starting point; and the interpretation of unresolved WTO legal issues underlying much trade-restrictive climate policy, which we document below.⁷ There are also global systemic factors over which the UK has little control, notably the weakening of transparency and dispute settlement mechanisms in the WTO, which reduces the efficacy of the WTO as an international referee whilst increasing the likelihood of trade retaliation.⁸ Another unknown factor is the extent to which countries move globally to respond to the urgency of climate change, lessening the motive for trade disputes and strengthening the implementation of international environmental law.

Despite these uncertainties, and they are many, our analysis suggests that trade restrictions will likely be needed to achieve the net-zero target. This may well lead to trade frictions and disputes when introducing measures such as green investment funds, higher performance standards or border carbon adjustments. Thus some tradeoffs seem inevitable. There are also areas of UK policy in which a strengthened approach to climate change mitigation would not undermine its commitment to open trade, rather strengthen it, namely greater transparency and ambition in reducing fossil fuel subsidies.

The role of trade in achieving the UK net-zero target and the need for greater ambition

Under the amended Climate Change Act 2008, the UK has committed to achieving net-zero carbon emissions by 2050 – an emissions reduction of at least 100% of 1990 levels. However, the target does not include emissions from trade. Aviation (aside from internal UK flights) is excluded, as is shipping. Also, with the exception of emissions permits purchased through carbon trading, calculations of UK emissions are limited to UK territory. Emissions that take place internationally in the manufacture of products consumed in the UK, sometimes described as the UK’s carbon footprint, are therefore excluded.

The exclusion of shipping and aviation is commensurate with the approach established by the UNFCCC and Paris Agreement,⁹ but England has fallen behind global leaders, including

⁶ Questions regarding the UK’s approach to subsidies are set out here: I. Taylor, N. Dhondt, ‘A brand new subsidy regime for the UK?’ Slaughter and May, 24 June 2020. Available at:

<https://my.slaughterandmay.com/insights/client-publications/a-brand-new-subsidy-regime-for-the-uk>

⁷ See also, B.J. Condon, ‘Climate Change and Unresolved Issues in WTO Law,’ (2009) 12(4) *Journal of International Economic Law* 895–926.

⁸ G Vidigal, ‘Living Without the Appellate Body: Hegemonic, Fragmented and Network Authority in International Trade’, Amsterdam Law School Legal Studies Research Paper No. 2019-15, 1-32.

⁹ United Nations Framework Convention on Climate Change (UNFCCC) 1992. New York: United Nations, General Assembly; UNFCCC (2015) Adoption of the Paris Agreement, 21st Conference of the Parties, Paris: United Nations.

Scotland, which has utilised flexibilities in the Climate Change Act to include them. The territorial approach to accounting for production and consumption emissions also conforms with that of the UNFCCC, the rationale for which is to avoid ‘double counting’. However, UK Government figures show that more than a third of UK emissions take place through trade in the form of UK domestic consumption of goods produced elsewhere.¹⁰ The UK’s Committee on Climate Change (CCC), which independently assesses progress on the net-zero target, has urged England to include emissions from aviation and shipping, and to consider consumption emissions¹¹, although its recommendations foreground domestic emissions in accordance with the Act.¹²

Even disregarding the impacts of UK consumption on emissions abroad, meeting a purely domestic net-zero target will require new controls on trade, encompassing changes to trade patterns, preferences and strategy. In short, the UK will need to encourage trade and investment in low-carbon goods, services and technologies, and discourage trade and investment in high-carbon goods, services and technologies. Despite its ostensibly domestic focus, implementation of domestic regulation often implicates trade policy. The areas in which the CCC calls for the most urgent action to meet a net-zero target illustrate the point. These include the installation of low-carbon heating and the decarbonisation of industry, which entail subsidies and investment subject to WTO challenge. They also include the phase-out of diesel and petrol vehicles,¹³ implying subsidies and a possible import ban.

If the UK neglects to apply its domestic requirements for low-carbon transition to imported products, this will undermine its net-zero target but also potentially its domestic green industry. This is because preventing or taxing imports of goods whose production process is emissions-intensive also prevents cheaper goods, which bear no climate regulation costs, from competitively undercutting domestic greener goods. Addressing environmental and competitiveness concerns resulting from higher-emissions imports might take place through imposing energy efficiency requirements on imported products, or even extending domestic taxes, which the UK currently does not do but which the EU is debating, as we discuss in the section on Border Carbon Adjustment.

The UK will need to adopt more ambitious domestic subsidies and regulation to meet its net-zero target. The UK introduced its target in June 2019. In its latest annual report on progress, the CCC concluded that, while some progress has been made in developing climate policy, significant gaps remain: only four of its 24 progress indicators were on track

¹⁰ DEFRA, UK Carbon Footprint from 1997-2017 (March 2020).

¹¹ CCC, Reducing UK emissions – 2020 Progress Report to Parliament (June 2020), pp 38, 42.

¹² On embedded emissions: R. Amos and E. Lydgate, ‘Trade, Transboundary Impacts and the implementation of SDG 12’ (2019) *Sustainability Science*. Available at: <https://doi.org/10.1007/s11625-019-00713-9>.

¹³ CCC, ‘Net Zero: The UK’s contribution to stopping global warming’, May 2019, 11-13.

in 2019 and only two of the 31 milestones on its critical path to net-zero have been achieved.¹⁴ The Committee had previously found the second interim target was met for reasons other than effective climate policy – namely, economic weakness due to the financial crash and changes in allowances in the EU Emissions Trading Scheme¹⁵ – and suggests the UK is currently on track to meet the third carbon budget through policy-driven power sector decarbonisation and the impact of Covid-19.

The Covid-19 crisis may therefore afford a similar ‘opportunity’ for the UK to rely upon economic contraction in meeting its interim target. In April 2020, the IEA was predicting an 8% reduction in global carbon emissions in 2020.¹⁶ While such a figure represents the largest ever annual fall in emissions, cuts will have little long-term effect unless sustained: meeting a target of 1.5C by 2030 would require a 7.6% reduction year on year.¹⁷ The CCC has outlined principles for ‘climate resilient recovery’.¹⁸ These underscore that Covid-19 emissions contraction will not make up for UK inaction; the UK Government will need to undertake intervention.

In order to achieve coherence between trade and climate policy, the UK thus faces a potential compliance challenge: ensuring that its support for the net-zero transition does not undermine its commitment to WTO rules. The Paris Agreement leaves it up to individual countries to determine the policy tools they employ to achieve their domestic targets. Particular forms of renewable energy support have already proven controversial and, given the absence of guidance in the Paris Agreement, the WTO has been a primary international forum in which this controversy has played out.

Do WTO rules undermine net-zero targets?

There is disagreement not only on whether WTO rules facilitate or constrain countries in addressing the climate crisis, but more fundamentally, on the extent to which climate change merits the imposition of trade restrictions. The Agreement on Subsidies and Countervailing Measures (the SCM Agreement) has formed a core focus for this debate. The basic framework is that countries are permitted to apply tariffs to correct against subsidies that meet certain criteria, so-called ‘actionable’ subsidies. According to the SCM Agreement, an actionable subsidy provides a financial contribution by a Government (or

¹⁴ CCC, above n. 11, pp104-126.

¹⁵ CCC, Reducing UK emissions – 2019 Progress Report to Parliament (July 2019), pp89-90.

¹⁶ IEA, Global Energy Review 2020 (April 2020).

¹⁷ S. Evans, 'Analysis: Coronavirus set to cause largest ever annual fall in CO2 emissions' (Carbon Brief 09.04.20) Available at: <https://www.carbonbrief.org/analysis-coronavirus-set-to-cause-largest-ever-annual-fall-in-co2-emissions>.

¹⁸ CCC, above n. 11.

public body) (Article 1.1(a)) to a specific enterprise, industry or region (Article 2). This financial contribution must confer a benefit (Article 1.1(b)) which essentially means better-than-market prices. The concept of ‘financial contribution’ casts a broad net, covering not only grants and loans, but also tax exemptions and R&D. These categories together encompass the UK subsidies we examine below, as well as the policy instruments often used to promote renewable energy globally. The fact that such subsidies explicitly aim to pick winners – broadly, low-carbon enterprises and the sector as a whole – suggests a high risk that they provide a financial contribution conferring a ‘benefit’ as understood under the SCM Agreement.

Compounding this problem is that the SCM Agreement does not permit countries to argue that subsidies are WTO-compatible on the basis that they pursue environmental goals. Many academics have argued that this is inadequate, and must be reformed.¹⁹ However, though subsidy reform is an agenda item in the current WTO negotiating round, other concerns are foregrounded. The European Commission’s recent concept paper, for example, does not even mention green subsidies, focusing instead on industrial subsidies in the context of China’s state-owned enterprises.²⁰

For renewable energy, it’s particularly relevant that the SCM Agreement only disciplines traded products. More specifically, an importing country has to establish that the subsidy has caused adverse effects to domestic producers in a competing industry. If a country’s investigating authority establishes that a subsidy is causing injury to domestic industry, it can apply tariffs, or ‘countervailing duties’, to correct for the subsidy’s impact. Alternatively, if such subsidies are deemed to cause ‘serious prejudice’, namely trade-distorting effects such as price cutting or displacing exports, a country can complain to the WTO dispute settlement bodies that the subsidy should not be permitted.

This mitigates the risk with respect to renewable electricity: as of 2017, the UK imported just 4.8% of its electricity.²¹ In contrast, products that are widely traded, like renewable electricity-generating equipment or ULEVs, are subject to SCM Agreement disciplines. In practice, claims of injury or serious prejudice might focus either on competing ‘conventional’ products, such as petrol rather than ULEV vehicles, or the same product, such as ULEVs produced by a foreign competitor. In the 2013 WTO rulings on Canadian renewable energy support programmes, the Appellate Body attempted to restrict the former category. It determined that conventional electricity could not be used as a

¹⁹ Above n. 2.

²⁰ European Commission, Concept Paper (2018). Available at: https://trade.ec.europa.eu/doclib/docs/2018/september/tradoc_157331.pdf.

²¹ Eurostat, ‘Electricity consumption and trade 2017’. Available at: [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Electricity_consumption_and_trade,_2017_\(GWh\).png](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Electricity_consumption_and_trade,_2017_(GWh).png).

benchmark for determining the appropriate price for renewable electricity as the latter constituted a new market.²² This novel approach to determining whether the subsidy conferred a benefit attracted wide criticism as it seemed to open the door to broader use of subsidies, but also provides an approach and precedent for shielding low-carbon goods from price comparison with their conventional equivalents, providing more ‘policy space’ for green subsidies under existing rules.²³

A further source of concern regarding the SCM Agreement’s compatibility with net-zero targets has to do with its utilisation in practice. WTO subsidy rules do not distinguish between fossil fuel and renewable energy subsidies. But, in contrast to renewable energy subsidies, there has never been a formal WTO complaint about fossil fuel subsidies, despite the fact that in 2015 global fossil fuel subsidies exceeded those for renewable energy by four to one.²⁴ This underscores the substantial role of state intervention and ownership in the oil sector. A lack of disputes reveals, and may even magnify, asymmetry in the treatment black and green subsidies receive in the WTO. Thus, for example, in the *India-Solar Cells* WTO dispute, India defended its requirement for the development of solar cells and modules in its subsidy programme on the basis that domestic supply was necessary to achieve energy security; the Appellate Body rejected this argument.²⁵ Energy security is, however, a primary justification for fossil fuel subsidies, and the basis for UK subsidies supporting fossil fuel exploration and development.²⁶

A final factor that complicates, but not necessarily decreases, the potential for action against UK green subsidies is an increasingly low level of global adherence to WTO rules in this area. A 2019 Global Trade Alert report highlighted that, in the G20, the largest number of ‘harmful policy instruments’ to trade take the form of subsidies.²⁷ Such subsidies are increasing among virtually all major economies, and few are being notified to the WTO, making it difficult to track and evaluate their legality. This report predates the Covid-19 crisis, which has prompted unprecedented use of subsidies, albeit on a temporary basis. The

²² Appellate Body Report, *Canada- Certain Measures Affecting the Renewable Energy Sector* (‘Canada-Renewable Energy’) and *Canada- Measures Relating to the Feed-in Tariff Program* (Canada – Feed-in Tariff Program), WT/DS412/19 and WT/DS426/19, adopted 24 May 2013.

²³ E Lydgate, Appellate Body Reports, *Canada- Certain Measures Affecting the Renewable Energy Sector* (‘Canada-Renewable Energy’) and *Canada- Measures Relating to the Feed-in Tariff Program* (Canada – Feed-in Tariff Program) (2014) Italian Yearbook of International Law.

²⁴ IEA, World Energy Outlook (IEA 2015).

²⁵ Appellate Body Report, *India- Certain Measures Relating to Solar Cells and Solar Modules* (India-Solar Cells), WT/DS456/AB/R, adopted 14 October 2016, paras. 5.84, 6.5.

²⁶ See ‘Fossil fuel subsidies: a potential win-win’ below.

²⁷ S. Evenett and J. Fritz, ‘Jar Jar not War War: Prioritising WTO reform options’ (Vox 13.06.19). Available at: <https://voxeu.org/article/jaw-jaw-not-war-war-prioritising-wto-reform-options>.

extent to which these short-term actions will lead to longer-term increases in WTO-incompatible subsidies remains uncertain.

The low level of global adherence to the SCM Agreement is probably compounded by the disabling of the Appellate Body. The WTO dispute settlement, and some major players, notably the US, are not participating in the alternative mechanism led by the EU.²⁸ In sum, despite the fact that they may well be living in glass houses whilst throwing their stones, countries will likely not hesitate to apply countervailing duties to compensate for alleged harm from UK green subsidies, and will likely be emboldened by the lack of strong referee. However, as we discuss in the subsequent section, it is unlikely that existing UK subsidies will prompt such retaliation. Not only do they mainly target minimally-traded products, they are structured to maximise the role of the private sector in providing incentives, thus reducing the scope for complaint.

Into the unknown: the UK's future subsidies

Whilst many UK subsidies responding to the Covid-19 crisis, such as the furlough scheme, are short-term, there are longer term pressures to rescue failing industries and some of these, notably airlines, are emissions-intensive. This pressure comes against the background of a legal vacuum in the UK's framework for subsidies. As an EU Member State, the UK adhered to EU State Aid rules, such that its subsidies were notified to, and analysed for EU-legality by, the European Commission. At the time of writing, the EU advocated continued UK alignment with EU State Aid rules as part of a future Free Trade Agreement. The UK has resisted this. There is some suggestion that its future approach will be lightly regulated and untransparent.²⁹

It is too early to conclude an analysis of the UK Government's approach to green subsidies post-Brexit, but some Government actions reveal an erratic approach and lack of due process which would be both detrimental to strong climate commitments and more likely to attract challenge in the WTO. For example, the UK Government's hasty action to rescue failing airline FlyBe, in January 2020, by waiving its air passenger duty payments is concerning. It showed a willingness to undermine the net-zero target, which will require increasing taxes on airlines, and prompted competitor International Airline Group to lodge a complaint with the European Commission on the grounds that the tax relief violated EU

²⁸ European Commission, 'Interim appeal arrangement for WTO disputes becomes effective' (30.04.20). Available at: <https://trade.ec.europa.eu/doclib/press/index.cfm?id=2143>.

²⁹ P. Foster and J. Pickard, 'Cummings leads push for light-touch UK state-aid regime after Brexit', July 27, 2020, *Financial Times*. Available at: <https://www.ft.com/content/e29430c7-9dae-440e-8093-74f705ce62c3>

State Aid rules.³⁰ The following sections set out key elements of the UK's existing approach to green and fossil fuel subsidies in terms of their compliance with WTO rules and coherence with climate targets, bearing in mind these may face significant reform as the UK establishes its strategy.

UK renewable energy price support: compliant but unambitious

Compliance with WTO rules: high

Coherence with climate targets: low

The UK's most recent review of current energy policy, the draft 10-year National Energy and Climate Plan,, identifies the following existing policies and measures, in addition to carbon pricing, to achieve the UK's target for renewable energy: Contracts for Difference (CfD) contracts for low-carbon electricity generation through competitive auctions; the Smart Export Guarantee (SEG) scheme for small-scale renewable generation; the Heat Networks Investment Project fund for new district heating projects; and the Renewable Heat Incentive for domestic and non-domestic heating systems; and various transport policies.³¹ These renewable energy price support measures largely target consumers, aiming to foster the low-carbon transition by making renewables affordable to a wider range of households. Such subsidies pose little risk of contravening WTO subsidies rules. In concert with the EU, the UK has been explicitly moving toward 'subsidy-free renewables', lessening the likelihood of SCM Agreement violation.³²

The majority of WTO renewable energy disputes have centred on feed-in-tariffs (FiTs), the most popular form of renewable energy subsidy³³, which aim to stabilise prices for renewable electricity. In these disputes, the WTO Appellate Body has stated that competitive bidding would make it likely that FiTs do not provide a benefit, ie better than market value. Competitive bidding, has been mandated by 2014-2020 EEA guidelines³⁴ and is implemented in the UK's CfD and therefore unlikely to fall foul of WTO rules. Another current example of the UK's commitment to market-based policy instruments is the UK's Smart Export Guarantee: energy suppliers now decide how much to pay customers for

³⁰ M. Acton, 'IAG's Flybe complaint sets stage for Brexit bust-up over state aid and climate'. MLex, 17 January 2020. Available at: <https://mlexmarketinsight.com/insights-center/editors-picks/area-of-expertise/brexit/iags-flybe-complaint-sets-stage-for-brexit-bust-up-over-state-aid-and-climate>

³¹ BEIS, The UK's draft integrated national energy and climate plan (NECP) (2019), pp61-74.

³² S. Evans, 'What does 'subsidy-free' renewables actually mean?' (Carbon Brief 27.03.18). Available at: <https://www.carbonbrief.org/what-does-subsidy-free-renewables-actually-mean>.

³³ REN 21, Renewables 2016 – Global Status Report. Available at: https://www.ren21.net/gsr-2019/chapters/chapter_02/chapter_02/.

³⁴ European Commission, 'Guidelines on State Aid for Environmental Protection and Energy 2014-20', OJ [2014] C 200/1, section 3.2.5.1(126).

generation, such that this no longer qualifies as a subsidy, as it does not come from a public body.³⁵

The Appellate Body has made clear that local content requirements (LCRs), which necessitate that a certain percentage of power generation equipment are manufactured domestically, are strictly prohibited under WTO non-discrimination rules. Whilst the UK's interest in developing its renewables industry may create an incentive to introduce them, at the time of writing the UK does not have any energy-market LCRs, which are prohibited in the EU.

Rather than WTO compliance, the main concern about UK renewable energy subsidies has been their lack of ambition. The CCC and others have concluded that slow firming up of policy, frequent changes and cancellation of renewables policies have impacted negatively on the sector.³⁶ For example, the last UK FIT scheme was closed to new customers at the end of March 2019, and the SEG opened in January 2020. This meant that for most of 2019 new installations received no subsidies, providing power to the national grid for free; further, stakeholders are concerned that SEG prices may not be high enough to incentivise renewables installations.³⁷ Carbon Brief's analysis of UK electricity generation found output from wind, solar, nuclear, hydro and biomass stalled in 2019 in part because of the scale-back of Government support.³⁸

Investment for green innovation: necessary, but legally uncertain

Compliance with WTO rules: currently likely, in future will require replication of State Aid internal controls

Coherence with climate targets: yes - likely necessary to achieve net-zero target

The UK's 2017 Clean Growth Strategy does not take account of the new net-zero target, but provides the most comprehensive indication to date of how the UK intends to undertake its low-carbon transition. A notable element is its commitment to green investment, which

³⁵ BEIS, The future for small-scale low-carbon generation (June 2019).

³⁶ CCC, An independent assessment of the UK's Clean Growth Strategy: from ambition to action (January 2018). Eg, S. Evans, 'How the UK transformed its electricity supply in just a decade' (Carbon Brief). Available at <https://interactive.carbonbrief.org/how-uk-transformed-electricity-supply-decade/>. J. Timperley, 'Six charts show mixed progress for UK renewables' (Carbon Brief 20.07.18). Available at: <https://www.carbonbrief.org/six-charts-show-mixed-progress-for-uk-renewables>.

³⁷ S. Hinson, Changes to support for small scale renewables (House of Commons Library Briefing Paper 8624 July 2019).

³⁸ S. Evans, 'UK low-carbon electricity generation stalls in 2019.' Available at: <https://www.carbonbrief.org/analysis-uk-low-carbon-electricity-generation-stalls-in-2019>.

encompasses £2.5 billion to low carbon innovation, representing the “largest increase in public spending on science, research and innovation in over three decades.”³⁹

Article 1 of the SCM Agreement, which defines subsidies, exempts ‘general infrastructure’, such that UK investment in charging points for electric vehicles and electricity storage and distribution networks are presumed SCM Agreement-compliant. Other UK Government support for innovation applies to various aspects of the low-carbon transition, notably a £505 million Energy Innovation Programme to commercialise clean energy, may however be subject to challenge. As Espa and Marín Durán point out, public investment bears a particular risk of WTO SCM Agreement non-compliance as the renewable energy technologies it benefits are often subject to international competition.⁴⁰ Government grants and investments targeted to specific companies to help in the development of clean energy technology clearly aim at an industry or group of industries.⁴¹ Existing UK schemes, such as the Energy Entrepreneurs Fund, are examples, but integrate EU State Aid rules; a transparent and competitive bidding process sets out cost criteria and manages investment thresholds to ensure that they don’t become too high.⁴² Such safeguards also make it more likely that grant schemes will not trigger WTO complaints. It is unclear whether or how the UK will replicate such controls in future investment, but if it does not, it will increase the potential for WTO disputes.

The UK also launched a Green Finance Strategy in July 2019, which outlines the Government’s role in greening both private and public sector investment. Government-backed green investment that provides very low interest rates falls into a gray area of WTO law. Such investment might be compared with interest rates available in other funds, leading to the conclusion it provides better-than-market conditions. However, following parallel logic to the Appellate Body in *Canada-Renewable Energy*, it would be possible to argue that there is no relevant market for comparison; instead, these loans are creating markets which would not exist otherwise. This is one example of the WTO legal uncertainty that plagues climate-supportive policies; we examine others below.

Fossil fuel subsidies: a potential win-win

³⁹ J. Bruntsden, ‘UK must reveal state-aid plan to unblock Brexit talks, EU warns’, *Financial Times*, 28 June 2020. Available at: <https://www.ft.com/content/cc23c73e-88e2-4c60-b2bf-36b241b5a101>

⁴⁰ Above n. 2.

⁴¹ S. Charnovitz, ‘Green Subsidies and the WTO’ (2014) World Bank Group Policy Research Working Paper 7060, pp41-59.

⁴² See: HM Government, Department of Business, Energy and Industrial Strategy, ‘The Energy Entrepreneurs Fund, Phase 7 Guidance Notes’, July 2018. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/722140/FINAL_EEF_7_Guidance_Document.pdf

Compliance with WTO rules: low, due to lack of transparency and potential non-compliance with SCM Agreement rules

Coherence with climate targets: low

Reducing fossil fuel subsidies holds the promise of being a double win for trade liberalisation and climate change mitigation, both compliant with WTO rules and coherent with climate policy. The European Commission has pledged, in line with the G20 and G7 leaders' commitments⁴³, to phase out 'inefficient fossil fuel subsidies.'⁴⁴ However, tracking of this phase-out found that G7 Governments have taken 'limited action to address fossil fuel subsidies, failed to put in place mechanisms to define and document the extent of such subsidies or hold themselves to account in achieving their climate pledges': on this analysis, the UK came top in pledges and commitments, and bottom in transparency.⁴⁵ Notably, for the UK, energy security includes its Maximum Economic Recovery strategy⁴⁶ supporting the oil and gas industry and the development of a UK shale gas industry.⁴⁷ This policy position stands in contrast to that set out in the European Commission's climate strategy, which defines energy security in terms of 'a decreased reliance on gas and oil imports.'⁴⁸

One reason why existing fossil fuel subsidies have not attracted WTO disputes is that they are often consumer- rather than producer-targeted, and therefore would likely not qualify as 'specific' as benefits accrue to multiple economic operators. Another reason is the lack of industry lobby for WTO complaints as it would be difficult, and also undesirable, for a country to establish adverse effects of another country's subsidies when likely providing similar subsidies.⁴⁹

The UK Government claims to provide no subsidies to fossil fuels,⁵⁰ but OECD and European Commission analyses suggest that the UK *does* subsidise. Defining and measuring fossil fuel

⁴³ G20 Leaders Statement, Pittsburgh Summit 2009, para 29; G7 Leaders Declaration, Japan Summit 2015, p28.

⁴⁴ European Commission, A Clean Planet for All: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy (COM(2018) 773 final), p18.

⁴⁵ S. Whitley et al, G7 fossil fuel subsidy scorecard: Tracking the phase-out of fiscal support and public finance for oil, gas and coal (ODI 2018), p3.

⁴⁶ OGA, The Maximising Economic Recovery Strategy for the UK (BEIS 2016).

⁴⁷ BEIS, above n. 31, pp32-36.

⁴⁸ European Commission, above n. 44, p8.

⁴⁹ H. Asmelash, 'Energy Subsidies and WTO Dispute Settlement: Why Only Renewable Energy Subsidies Are Challenged' (2015) 18(2) J Int Econ Law 261.

⁵⁰ The 2019 climate policy plan states that the issue of phasing out energy subsidies is 'not applicable' to the UK. BEIS, above n. 31, pp32-34. In response to a FOI request, DECC stated that the UK has 'no fossil fuel subsidies' on the basis of its definition of fossil fuel subsidies as 'government action that lowers the pre-tax price to consumers to below international market levels.' DECC, FOI 2015/15308. Available at:

subsidies is challenging due to lack of agreement on definitions and lack of transparency in detailing subsidies. There are two main approaches: the 'price-gap' approach measures the gap between a benchmark price and the price charged to consumers and is similar to the approach used by the UK; the 'inventory' approach identifies direct government support and tax expenditures benefitting the production or consumption of fossil fuels based on the SCM Agreement's definition of subsidies and is used by the OECD.⁵¹

The UK Oil & Gas Authority (OGA) sets out the tax regime applicable to exploration and production of oil and gas in the UK in terms of three main elements: the Ring Fence Corporation Tax (RFCT) at 30% on 'ring fence' profits with first-year allowances; the Supplementary Charge (SC), an additional charge of 10% on ring fence profits which may be reduced by certain allowances; and the Petroleum Revenue Tax (PRT), a historical tax now set at 0%, maintained so that certain losses may be set against past PRT payments.⁵² Further tax exemptions and reductions apply.⁵³ Although the OECD acknowledges that the UK's particular combination of measures may not amount to a preferential business tax, it suggests the UK's fossil fuel tax regime would normally be considered preferential tax treatment, and calculates UK support for fossil fuels at least US \$6.5 billion in 2016.⁵⁴ The Commission's report finds the UK to be the largest provider of support for fossil fuels in the EU at €11.6 billion per year (in contrast to €7.76 billion for renewables), highlighting tax reliefs for energy-intensive industry and UK households.⁵⁵

The UK's continued support for oil exploration, lack of transparency, likely preferential tax treatment and carve-outs from carbon taxes undermines the coherence of its climate change mitigation strategy. Reducing fossil fuel subsidies would provide coherence with its market-based approach to removing renewable energy subsidies; exceptions to existing carbon taxes should be narrowed. For increased transparency, the UK should move from the 'price gap' approach to measuring subsidies to the 'inventory method' which better captures production subsidies. As well as domestic reform, the UK can make better use of international cooperation and become a visible player calling for fossil fuel reform. For

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/455512/FOI_2015_15038_PUB.pdf.

⁵¹ J Timperley, 'Explainer: The challenge of defining fossil fuels' (Carbon Brief 12.06.2017). Available at: <https://www.carbonbrief.org/explainer-the-challenge-of-defining-fossil-fuel-subsidies>.

⁵² Oil & Gas Authority, 'Taxation. Overview'. Available at: <https://www.ogauthority.co.uk/exploration-production/taxation/overview/>.

⁵³ HMRC, Oil Taxation Manual (2016, updated Feb 2020). Available at: <https://www.gov.uk/hmrc-internal-manuals/oil-taxation-manual>.

⁵⁴ OECD, Fossil fuel support country note: United Kingdom (April 2019). OECD inventory of fossil fuel subsidies GBR (figures to 2017) available at: https://stats.oecd.org/Index.aspx?DataSetCode=FFS_GBR.

⁵⁵ Trinomics, Study on energy prices, costs and subsidies and their impact on industry and households (Trinomics 2018), p268.

example, it could join the Friends of Fossil Fuel Subsidies reform, a group of 12 countries calling for greater action on fossil fuel subsidies and a discussion of how the WTO framework could assist this process.⁵⁶

Regulatory restrictions: addressing the UK's carbon footprint?

Compliance with WTO rules: possible; hinges on whether they treat domestic and imported products evenly

Coherence with climate targets: High

Setting net-zero targets seems likely to result in an expansion of regulatory restrictions such as product standards and bans. As an EU Member, the UK imposed performance standards, notably ecodesign and labelling specifications for electronic appliances, which have now been adopted as UK domestic regulation.⁵⁷ Energy efficiency standards are unlikely to fall foul of WTO non-discrimination rules as long as they are applied evenly to both domestic and imported products. Such regulation currently targets a narrow range of products. Regulating emissions associated with more products, from smartphones to beef, could bring down domestic emissions but also holds the best promise of addressing the UK's carbon footprint, which is one of the highest in the world.⁵⁸

Such additional regulation might consist of carbon taxes, which we address below, carbon labelling, or even product bans. Product bans or labels on a wider range of products are most likely to attract complaints if they disproportionately target imported products and focus on regulating production processes. A regulation which exemplifies both is the EU *de facto* ban on palm oil based on its contribution to agricultural emissions, which has led to a WTO complaint.⁵⁹ Process-based regulation, such as banning palm oil because it contributes to land-use change that results in deforestation, is controversial among WTO Members because it intrudes deeply into other countries' supply chains and production processes. The WTO Appellate Body has never directly addressed the legality of trade restrictions based upon how a product is produced, nor the legality of regulatory restrictions that have a purely extraterritorial impact. Though it is no longer available to act as referee on this issue, the WTO Panel's ruling on the current dispute will be one to watch.

⁵⁶ WTO, Fossil Fuel Subsidies Reform Ministerial Statement, WT/MIN(17)/54 12 (December 2017), pp1-2.

⁵⁷ List of regulations available at: https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-products/list-regulations-product-groups-energy-efficient-products_en.

⁵⁸ According to Carbon Brief only the US and Japan are higher. Available at: <https://www.carbonbrief.org/mapped-worlds-largest-co2-importers-exporters>

⁵⁹ European Union — Certain measures concerning palm oil and oil palm crop-based biofuels, WT/DS593/9, Panel established 29 July 2020.

Short of product bans, even labeling to indicate embedded emissions is not free from the risk of WTO challenge. The *US-Tuna II* WTO dispute made clear that labels are subject to WTO non-discrimination rules when underpinned by national legislation, and legislative criteria for labels must be even-handed in their treatment of imported and domestic products.⁶⁰ Thus a carbon label that attributes higher emissions to imported apples than domestic ones, or possibly that attributes higher emissions to imported bananas than domestic apples (if they are determined to be in a competitive relationship), could be subject to WTO disputes.

Carbon pricing as a trade issue and the UK approach

Compliance with WTO rules: uncertain, carve outs and free allowances potentially SCM Agreement non-compliant

Coherence with climate targets: medium, due to carve-outs

Carbon pricing applies to those responsible for greenhouse gas emissions and aims to incentivise the use of cleaner energy. However, as the price rises, industries face increasing competitive pressure from imported products that do not face equivalent tax burdens. Carbon taxation schemes indeed vary greatly worldwide in respect of the level of tax and the share of emissions covered.⁶¹ Some high-emitting countries, such as the US and India, do not require domestic producers to pay for emissions⁶², whilst others such as China⁶³, impose a much lower price burden on producers than carbon pricing in the UK. Global carbon pricing would lessen concerns about so-called carbon leakage, in which heavy industry relocates to countries without carbon taxes. The Paris Agreement establishes a global carbon trading system replacing the Kyoto Protocol's Clean Development Mechanism, but negotiations have stalled.⁶⁴

Carbon pricing operates in two ways: through taxes on the distribution, supply or use of fossil fuels, and through emissions trading schemes (ETS) based on quotas of allowable

⁶⁰ Appellate Body Report, *United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products* (US-Tuna II), WT/DS318/AB/R, adopted 13 June 2012.

⁶¹ Grantham Research Institute on Climate Change and the Environment, *Global lessons for the UK in carbon taxes* (August 2019).

⁶² The World Bank, *Carbon Pricing Dashboard*. Available at https://carbonpricingdashboard.worldbank.org/map_data.

⁶³ J. Timperley, 'How will China's new carbon trading scheme work?' (Carbon Brief 29.01.28). Available at: <https://www.carbonbrief.org/qa-how-will-chinas-new-carbon-trading-scheme-work>.

⁶⁴ Carbon Brief, 'How 'article 6' carbon markets could make or break the Paris Agreement' (29.12.19). Available at: <https://www.carbonbrief.org/in-depth-q-and-a-how-article-6-carbon-markets-could-make-or-break-the-paris-agreement>.

emissions and permits allocated or auctioned. The UK currently operates both: it participates in the EU emissions trading scheme (EU ETS) and has a carbon tax, the Carbon Price Floor, introduced in 2013 when the EU carbon price collapsed. This means that UK industries currently face higher carbon prices than those of the EU ETS. Whilst the UK Government is 'firmly committed' to carbon pricing and a system 'at least as ambitious' as the EU ETS,⁶⁵ the form this will take remains uncertain. The UK Government's preference as of May 2019 was to link a UK ETS with the existing EU ETS.⁶⁶ In the case of no deal, preparations have been made for a carbon tax to take the place of participation in the EU ETS.⁶⁷

Despite the fact that the current UK carbon price is comparatively high, it is subject to significant exceptions. In line with the EU approach, the UK currently offers compensation (state aid) for energy intensive industries through to 2020⁶⁸ and free allowances for companies that are highly exposed to trade and thus at risk of competitive undercutting. Overallocation of free allowances in the earlier phases of the EU ETS contributed to the carbon price collapse: in the fourth phase of the EU ETS commencing in 2021, the EU will continue to reduce supply.⁶⁹ Whilst never challenged at the WTO, the exemption of certain industries from ETS charges might well be classified as an actionable subsidy.

The Carbon Price Floor operates in conjunction with the Climate Change Levy (CCL), which was introduced in 2001 for UK industries.⁷⁰ The CCL provides discounts when operators enter into voluntary agreements on targets for reducing carbon emissions.⁷¹ Early reports found the CCL stimulated emissions reductions and raised awareness, however concerns were raised about weak targets and arrangements allowing businesses failing to meet targets to continue receiving payments.⁷² Analysis also pointed to the politics of policy

⁶⁵ BEIS, 'Meeting climate change requirements from January 2021' (28.04.20). Available at: <https://www.gov.uk/government/publications/meeting-climate-change-requirements-if-theres-no-brexit-deal/meeting-climate-change-requirements-if-theres-no-brexit-deal>.

⁶⁶ HM Government, Scottish Government, Welsh Government, DAERA Northern Ireland, The future of UK carbon pricing: a joint consultation (May 2019) p11.

⁶⁷ HMRC, Carbon Emissions Tax (29.10.18). Available at: <https://www.gov.uk/government/publications/carbon-emissions-tax/carbon-emissions-tax>.

⁶⁸ BEIS, 'Energy Intensive Industries: Compensation for the indirect costs of the EU Emissions Trading Scheme and the Carbon Price Support mechanism' (December 2019).

⁶⁹ European Commission, 'EU Emissions Trading Scheme'. Available at: https://ec.europa.eu/clima/policies/ets_en.

⁷⁰ D. Hirst, Carbon Price Floor and the price support mechanism (House of Commons Briefing Paper January 2018).

⁷¹ Environment Agency, Climate Change Agreements: Operations Manual (December 2018), p79.

⁷² EAC, Reducing carbon emission from UK business: The role of the Climate Change Levy and Agreements (2008 HC 354); NAO, The Climate Change Levy and Climate Change Agreements (2007).

development limiting the scope of the tax.⁷³ Evidence now suggests that a carbon price of £40/tCO₂ is required for the UK to reach its net-zero target⁷⁴, well above current prices. To meet its pledge of maintaining (or exceeding) the ambition of the EU system, it will be necessary for the UK to raise carbon taxes and – if it maintains an ETS – reduce available permits.

To avoid a post-Covid emissions rebound, the UK could introduce higher and/or broader carbon taxes. This would be a logical component of the green recovery, however it also risks deepening asymmetry between the UK and other countries with potential negative effect on UK exporters.

Raising ambition: to BCA or not to BCA?

Compliance with WTO rules: uncertain, dependent on drafting

Coherence with climate target: non-applicable as not covered under Climate Change Act

A potential solution to the problem of asymmetry is a border carbon adjustment (BCA), an import fee imposed by countries that have a domestic carbon tax or emissions trading scheme on countries that do not have one. While some EU countries, notably France,⁷⁵ have advocated BCAs for some time, they have never been adopted. Concerns raised include the potential for complexity and economic ineffectiveness,⁷⁶ international backlash,⁷⁷ and incompatibility with WTO rules. Rising ETS permit prices have led to industry pressure for the EU to take unilateral action to ‘level the playing field’ for carbon pricing through taxing imported products.⁷⁸ The European Commission’s blueprint for a Green Deal states that, in the event that ‘differences in levels of ambition persist’, it will apply BCAs in place of the current approach to preventing leakage through free allocations and state aid.⁷⁹ Beyond

⁷³ J. Snape, J. de Souza, *Environmental Taxation Law: Policy, Contexts and Practice* (Ashgate Publishing 2006); OECD, *The United Kingdom Climate Change Levy: A Study in Political Economy* (OECD 2005).

⁷⁴ Grantham Research Institute on Climate Change and the Environment, *How to price carbon to reach net-zero emissions in the UK* (May 2019).

⁷⁵ F. Simon, ‘France details plans for ‘carbon inclusion mechanism’’ (euractiv 18.08.10). Available at: <https://www.euractiv.com/section/trade-society/news/france-details-plans-for-carbon-inclusion-mechanism/>. P. MacDonald, ‘New EU border tariffs will boost low-carbon cement’ (Ember 31.01.17). Available at: <https://ember-climate.org/2017/01/31/new-eu-border-tariffs-will-boost-low-carbon-cement/>.

⁷⁶ Above n. 3.

⁷⁷ S. Fleming and C. Giles, ‘EU risks trade fight over carbon border tax plans’ (Financial Times 16.10.19). Available at: <https://www.ft.com/content/154368c8-ef55-11e9-ad1e-4367d8281195>.

⁷⁸ B. Lewis and S. Twidale, ‘ArcelorMittal says carbon border levy is just the start to green steel’ (Reuters 29.10.19). Available at: <https://uk.reuters.com/article/us-metals-lmeweek-arcelormittal/arcelormittal-says-carbon-border-levy-is-just-the-start-to-greener-steel-idUKKBN1X81UH>.

⁷⁹ European Commission, *The European Green Deal* (COM(2019) 640 final), p5.

affirming that it would be WTO-compliant, the EU has not made clear what form its tax would take.

A full analysis of the WTO-compatibility of BCAs would depend on how they are designed and administered. To be compatible with WTO non-discrimination rules, BCAs must not appear to be designed to benefit domestic over imported products (WTO National Treatment principle) or to disadvantage particular trade partners (Most Favoured Nation principle). For this reason, a tax that is the same for domestic and imported products is more likely to comply with the non-discrimination principle than a tax that differentiates between countries based on production processes.⁸⁰ However, preventing higher charges for dirtier production processes limits the BCA's environmental ambition. One paper modelling hypothetical BCAs found a BCA based on average emissions levels in exporting countries would amount to a charge of 15% on Chinese goods in covered sectors; in contrast, a BCA based on the use of best available technologies, though less likely to trigger WTO complaint, would amount to only a 2.1% charge.⁸¹ The lower charge is less effective in protecting domestic producers from carbon leakage and incentivising foreign producers to use cleaner energy sources.

Past cases under GATT Article XX highlight the importance of a strong regulatory rationale, with a clear means-ends relationship between a trade-restrictive regulation and its goal.⁸² This means a BCA that is applied narrowly – only to primary goods in the sectors most at risk of carbon leakage – is more likely to comply with WTO rules than a BCA that applies to a larger range of goods. However, this means that there may remain a range of domestic products that face carbon charges not borne by importers. Thus it could also be seen as a reduction in environmental ambition.

There are various procedural steps that would increase the likelihood of WTO compliance. These include ensuring that methodology for calculating taxation rates is transparent and publicly available, that trade partners are consulted before it is introduced, and that a mechanism is in place so that producers can 'appeal' default rates of taxation and prove that their plants are cleaner and thus subject to less tax.

⁸⁰ For example, M. Mehling et al, *Designing Border Carbon Adjustments for Enhanced Climate Action* (2019) 113(3) *American Journal of International Law* 461; J. Hillman, 'Changing climate for carbon taxes: Who's afraid of the WTO?' Climate and Energy paper series 2013, German Marshall Fund, pp7-9.

⁸¹ M. Sakai and J Barrett, *Border carbon adjustments: Addressing emissions embodied in trade* (2016) 92 *Energy Policy* 102.

⁸² E. Lydgate, *Is it rational and consistent? the WTO's surprising role in shaping domestic public policy*' (2017) 21 (2) *Journal of International Economic Law*, 1-22.

There are also some technical points regarding the way that BCAs are administered, which could determine whether they comply with WTO rules. GATT Article II requires that parties are exempt from charges on goods beyond those agreed in their WTO tariff schedules.⁸³ The only circumstances in which countries can apply such a charge is they are equivalent to a domestic ('internal') tax. Thus a BCA must be triggered by an internal factor like the sale of the product, rather than paid upon import, which makes their administration more complex. Also, it remains unclear whether border tax adjustment is permitted on taxes associated with how a product is produced – ie, energy consumption – or if they are limited to taxes on what is physically incorporated in the product. The issue has not been clarified in a WTO dispute.⁸⁴ Further complexities arise in translating an ETS to a BCA. An ETS applies to particular plants in certain sectors, rather than to specific goods. WTO rules do not allow 'border tax adjustment' for direct taxes (on producers) – they can only be applied to indirect taxes (on products). It is thus unclear whether an ETS can be 'adjusted.'⁸⁵

The BCA example well illustrates why the absence of a strong WTO dispute settlement system is sub-optimal for the UK. It is not possible to say categorically whether BCAs are or are not WTO-compliant. With respect to a controversial measure like a BCA, an Appellate Body ruling holds some hope of de-escalating potential trade conflict. With the EU likely first to put its head above the parapet, the outcome of a resultant WTO dispute would help provide signals about whether a UK BCA was likely to stand up to a WTO challenge.

Integrating climate targets and ambitions into UK FTAs

Compliance with WTO rules: likely, barring a direct conflict of laws

Coherence with climate target: medium to high, will help to achieve targets although scale of contribution uncertain

Some of the domestic reform issues discussed above could be supported in the UK's approach to free trade agreements. FTAs aim to deepen obligations for free trade and cooperation among participating countries. They have the potential to facilitate climate change mitigation through removing barriers to trade on climate-friendly goods, services and technologies, reinforcing commitment to the Paris Agreement, coordinating approaches to carbon pricing, committing to removing fossil fuels subsidies and supporting renewable energy subsidies. To date, however, such potential has hardly been exploited: just as the Paris Agreement makes little reference to trade, trade agreements make little reference to climate change.

⁸³ https://www.wto.org/english/res_e/publications_e/ai17_e/gatt1994_art2_gatt47.pdf

⁸⁴ GATT, Border Tax Adjustments: Report of the Working Party, L/3464, BISD 18S/97 (Dec. 2, 1970)

⁸⁵ This issue is highlighted in this analysis: <https://ielp.worldtradelaw.net/2019/10/guest-post-a-carbon-border-tax-or-a-climate-tariff.html>

To create coherence between FTAs and climate change policy, the UK will need to be at the forefront of sluggish yet growing progress in this area. The proposed FTA between New Zealand, Costa Rica, Fiji, Iceland and Norway breaks the mould by encouraging climate change mitigation alongside trade promotion, and is the first to promise binding commitments to phase out fossil fuel subsidies. Recent EU FTAs, including the EU-Singapore, EU-Japan and EU-Canada agreements, also show progress by including some climate-specific cooperation. These encompass aspirations to remove barriers to trade in environmental goods and services,⁸⁶ coordinate on carbon pricing⁸⁷ and limit fossil fuel subsidies,⁸⁸ as well as explicitly allow for environmental subsidies.⁸⁹ The EU-Japan FTA is the first to reinforce Parties' commitment to the Paris Agreement.⁹⁰ This shared reference point provides assurance that the trade partner is also taking domestic measures to transform its domestic economy and thus imposes some costs and restrictions on domestic fossil fuels, even if they are not equivalent.

For the most part, these are non-binding and phrased in general and aspirational language, however the Commission's Green Deal commits to strengthen its approach in this area.⁹¹ In its negotiating objectives for the UK, the EU has, for the first time, made an FTA contingent on a partner having an equivalently effective approach to carbon pricing.⁹² However, just as the EU or UK might wish to use FTAs to strengthen climate cooperation and trade in low-carbon goods, potential partners can utilise FTAs as an opportunity to try to secure a favourable trade environment for their high-carbon exports. An FTA could also undermine the UK's ability to pursue the net-zero target through curtailing the UK's ability to provide renewable energy. The current US Administration, with its refusal to ratify the Paris Agreement, stands out as a partner with a divergent approach, and has already made clear it will refuse any mention of climate change in a US-UK FTA.⁹³

Clearly, it will be easiest to adopt an ambitious approach with like-minded partners, however there will be pressures from some trade partners not to integrate climate strategy into FTAs. Others might see the inclusion of climate-friendly commitments as a concession and want market access in other areas in return. An integrated strategy on trade and

⁸⁶ EU-Singapore Article 7.1; CETA Article 24.9.

⁸⁷ CETA Article 24.12.

⁸⁸ EU-Singapore Article 12.11(3).

⁸⁹ CETA Article 7.8; EU-Singapore Annex 11-A.

⁹⁰ EU-Japan Article 16.4(4).

⁹¹ European Commission, above n. 79.

⁹² Council of the EU, Addendum to negotiations with the UK and Northern Ireland, para 106. Available at: <https://www.consilium.europa.eu/media/42736/st05870-ad01re03-en20.pdf>.

⁹³ J. Doward, 'US rules out any talk of a climate crisis in trade negotiations' (The Observer 21.12.19). Available at: <https://www.theguardian.com/politics/2019/dec/21/us-bans-mention-of-climate-in-uk-trade-talks>.

climate could include 'climate red lines', such as ratification of the Paris Agreement or a carbon pricing system of equivalent effectiveness. Such red lines, however, would *de facto* rule out certain trade partners. Given the scope of its ambitions for both FTAs and climate change mitigation, this will be an area of hard choices for the UK Government.

Conclusion

In this article, we argue that, despite the fact that UK domestic legislation does not directly encompass trade-related emissions, the UK likely cannot achieve even a domestic target without considering its impacts for trade policy. Each topic we address merits further analysis and we do not address every policy area relevant to the trade and climate relationship. Instead, we provide a road map of key strategic issues. In so doing, we hope to invigorate analysis and prompt debate regarding tradeoffs and challenges in integrating trade and climate policy.

A fully coherent approach would require UK trade policy to drive the transition to net-zero. It is clear this will not happen on its own, but requires a cross-cutting strategy. The UK could increase its ambition and clearly maintain WTO-compliance by reducing fossil fuel subsidies. In other areas, such as green subsidies, green product standards and border carbon adjustment, as well as integrating climate targets into FTAs, foregrounding climate change in UK trade and trade policy might well lead to challenges in the WTO and with potential FTA partners. The potential for trade challenges would likely be magnified by stricter attempts to account for the UK's carbon footprint, through for example introducing carbon labelling for food and replicating the EU ban on palm oil, particularly if UK regulation singles out imported products.

The core of the challenge the UK faces in integrating trade and climate policy is globally- rather than nationally- determined. The UNFCCC framework fails to level the playing field, so countries like the UK who are ambitious about climate change are increasingly concerned about bearing costs that trade partners do not share, making trade restrictions more likely. In this sense, the UK is not constrained by a legal or technical problem of restrictive WTO rules, but by the political problem of other countries not imposing the same regulatory costs and economic reforms and reacting against new trade restrictions.

Thus, the best way to avoid climate-related trade restrictions is to encourage an increase in global climate ambition. Barring this, it is likely more trade restrictions will be needed to achieve net-zero, which may challenge the UK's commitment to open multilateral trade. A potential compromise is to maintain trade preferences with countries with similar approaches to climate change mitigation. Given the close alignment in approach, continued cooperation between the UK and EU is particularly desirable to avoid the imposition of trade

restrictions between them but also to build a broader coalition of countries advocating for a trade system that pursues an ambitious approach to climate change mitigation.