

## SYMPOSIUM ARTICLE

# *Climate Policy and the United States System of Divided Powers: Dealing with Carbon Leakage and Regulatory Linkage*<sup>†</sup>

Daniel A. Farber\*

---

First published online 23 September 2013

### Abstract

Climate change has pushed governmental authorities within the United States (US) into new routes of national and transnational policy-making. The normal route for national policy-making runs from Congress in setting policy, to the President in agency implementation, to judicial oversight and enforcement. When that route is blocked, however, federalism and the separation of powers provide some byways and detours that may still be used to make progress. State governments and the executive branch have moved into the breach left by congressional deadlock. In the absence of federal climate legislation or a formal treaty, however, constitutional challenges will predictably meet efforts to limit carbon leakage or to establish linkages between regulatory systems.

These constitutional issues often involve corners of constitutional law such as foreign affairs, where doctrines are particularly murky. Solid arguments can be made in favour of state efforts to avoid leakage and create linkage, despite claims of discrimination against interstate commerce, extraterritoriality, and foreign affairs pre-emption. The Environmental Protection Agency has some statutory authority to deal with leakage, and the President seems to have authority to pursue linkage through executive agreement. Thus, both states and the executive branch should have room to deal with transboundary implications of climate policies. Although the deadlock in Congress regarding climate change may be unusually severe, these modes of response may also be important for other kinds of transnational activity by US state governments and the national executive.

**Keywords:** Climate Change, Sub-national Governments, Environmental Trading Systems, Carbon Leakage, Extraterritoriality, US Constitutional Law

## 1. INTRODUCTION

Comprehensive legislation on climate change has little immediate prospect for passage in the United States (US) Congress, and the prospect of Senate approval of a climate

---

<sup>†</sup> This contribution is part of a collection of articles from the conference ‘Global Climate Change without the United States: Thinking the Unthinkable’, held at Yale University Law School, New Haven, CT (United States), 9–10 November 2012.

\* Boalt Hall Law School, University of California, Berkeley, California (United States).  
Email: dfarber@law.berkeley.edu.

treaty is even dimmer.<sup>1</sup> But one of the benefits of a system of divided powers is that other parts of the governance system can help fill the gap. Climate policy is moving forward in the states and in the executive branch. Pending congressional action, these efforts should lead to carbon reductions. They should also signal to the international community that the US is not entirely out of the picture in terms of climate policy. Some of the tools needed to make these efforts successful, however, face potential constitutional challenges.

The first set of challenges relates to precautions against the possibility that restrictions in one jurisdiction can cause increased carbon emissions elsewhere. Fortunately, the statutory scheme under which the Environmental Protection Agency (EPA) currently operates provides mechanisms for avoiding such ‘leakage’. In contrast, state efforts to combat carbon leakage may trigger constitutional attacks under the dormant commerce clause or other doctrines.<sup>2</sup>

A second set of challenges relates to coordination across jurisdictional borders. A policy in any one jurisdiction can have only limited effectiveness, so building multi-jurisdictional coalitions is critical.<sup>3</sup> Multi-jurisdictional coalitions can also reduce costs by allowing linkage of emissions trading systems and other efficiencies. Efforts to create such coalitions, however, also encounter constitutional challenges. When state governments are involved,<sup>4</sup> challenges could be based on the compact clause or on foreign affairs pre-emption.<sup>5</sup> When the executive branch is involved, the claim would be that presidential agreements with foreign powers infringe the constitutional requirement of senatorial approval for treaties.

Dealing with the issues of leakage and linkage is an important element of an effective climate policy. I will argue that constitutional barriers should not stand in the way of effective state and executive efforts to prevent leakage and link regulation with other jurisdictions. The relevant legal doctrines are not crystal clear, however. Thus, the outcome of litigation may depend as much on judicial understanding of the policy issues as on the fine points of doctrine.

The transnational element of this problem arises from the sub-global and the sometimes sub-national nature of current climate regulation. The issue of leakage is

<sup>1</sup> See B. Ewing & D.A. Kysar, ‘Prods and Pleas: Limited Government in an Era of Unlimited Harm’ (2011) 121 *Yale Law Journal*, pp. 350–425.

<sup>2</sup> For suggestions that state climate regulations should enjoy a strong presumption of validity under the dormant commerce clause unless they are facially discriminatory, see R.B. Stewart, ‘States and Cities as Actors in Global Climate Regulation: Unitary vs. Plural Architectures’ (2008) 50 *Arizona Law Review*, pp. 681–708, at 796; D.A. Farber, ‘Climate Change, Federalism, and the Constitution’ (2008) 50 *Arizona Law Review*, pp. 879–924, at 881. For other views of potential challenges to state climate regulations, see S. Ferrey, ‘Goblets of Fire: Potential Constitutional Impediments to the Regulation of Global Warming’ (2008) 35 *Ecology Law Quarterly*, pp. 835–910; D.A. Kysar, ‘Like a Nation State’ (2008) 55 *UCLA Law Review*, pp. 1621–74; H.J. Drapalski III, ‘The Viability of Interstate Collaboration in the Absence of Federal Climate Change Legislation’ (2010) 21 *Duke Environmental Law & Policy Forum*, pp. 469–94.

<sup>3</sup> D.A. Farber, ‘Carbon Leakage Versus Policy Diffusion: The Perils and Promise of Subglobal Climate Action’ (2013) 13 *Chicago Journal of International Law*, pp. 359–79.

<sup>4</sup> For example, California is now considering increasing the number of free allowances to industry in order to reduce leakage from the operation of its emissions trading system: see D. Kahn, ‘California Mulls Risk of “Leakage” to Its Cap-and-Trade Participants’, *E&E Reporter*, 2 Aug. 2012.

<sup>5</sup> See Drapalski, n. 2 above; Kysar, n. 2 above; Note, ‘Foreign Affairs Preemption and State Regulation of Greenhouse Gas Emissions’ (2006) 119 *Harvard Law Review*, pp. 1877–98.

posed because of the absence of global emissions restrictions, and the solutions require attention to economic relations between the regulating jurisdiction and others. Linkage is even more clearly transnational since it requires coordination between jurisdictions, with the additional wrinkle that this coordination often will not be part of a formal treatment between sovereigns. In the US context, for instance, we will see that states do not have the power to enter into treaties, and the scope of presidential power to enter into enforceable international agreements is controversial. Thus, interjurisdictional relations are more complex than is the case in the traditional model of public international law.

This article makes several contributions to the understanding of these issues. Prior discussion of federalism issues has not focused on the distinctive problems posed by leakage and linkage, which help to illuminate the transnational aspects of the issues. The constitutional issues about state power must also be considered within the context of relevant federal statutes, which have previously been overlooked. It is also important to give due regard to the international obligations that the US has assumed in ratifying the United Nations Framework Convention on Climate Change (UNFCCC).<sup>6</sup> Moreover, the issues relating to executive action and those relating to state action have not been examined in tandem.

Section 2 of this article begins with a brief overview of the present state of play in the states and the executive branch regarding climate policy. Despite congressional deadlock, the US has undertaken fragmentary mitigation efforts. To be successful, however, these efforts cannot simply focus on local carbon emissions but must include the carbon tied with the production of all of the goods consumed locally. Otherwise, the benefits of regulating local producers are undermined as the market shifts to cheaper, high-carbon imports – a problem known as carbon leakage.<sup>7</sup>

Section 3 focuses on the constitutionality of state or EPA efforts to combat carbon leakage. State efforts to combat leakage can be defended against charges that they discriminate against interstate or foreign commerce, as well as claims that they involve impermissible extraterritorial regulation. It is crucial in defending these efforts, however, to establish that the state's method of measuring embedded carbon is non-discriminatory and that the state's concern with embedded carbon is legitimate. At the federal level, the EPA's statutory mandates currently provide some tools for dealing with leakage, and those efforts do not raise constitutional problems.

Section 4 considers state and executive branch authority to engage in cross-jurisdictional linkage of emissions trading systems. States should also have the ability to coordinate with environmental trading systems in other states or in foreign nations without running afoul of the compact clause or foreign affairs pre-emption. Moreover, the President has broad power to engage in cooperative climate action with foreign countries under his foreign affairs powers.

---

<sup>6</sup> New York, NY (US), 9 May 1992, in force 21 Mar. 1994, available at: <http://unfccc.int>.

<sup>7</sup> Of course, such market shifts can happen with any form of regulation. But most regulations deal with the localized harms, so that this form of leakage does not undo the benefits of the policy to the enacting states. However, if a consumer buys goods that were produced with high carbon emissions, those emissions cause as much harm to the state as emissions within its borders.

Section 5 offers a few closing thoughts. Climate change is an unprecedented problem, so perhaps it is not surprising that it raises novel legal issues. In particular, it confounds our usual expectations about the lines between the local, the national and the global, since local emissions contribute to a global problem that in turn creates local harm. Constitutional rules do not need drastic revision in order to apply appropriately, but they do need to be applied with sensitivity to novel policy imperatives and with an awareness of the unique nature of the problem.

These are complex constitutional issues in areas where the Supreme Court has not been a model of clarity, even in dealing with more conventional regulatory issues. The present discussion does not purport to provide a definitive resolution. But there are, at least, grounds for optimism about the constitutional issues. Part of the reason is that we still benefit from the legislative products of an earlier era when Congress, rather than being deadlocked, played a leading role in environmental policy. We can only hope that Congress will eventually return to playing an active, constructive role, mooting the issues discussed in this article.

The discussion here focuses on US constitutional law. Anti-leakage or pro-linkage efforts may raise similar problems, however, in other federal systems. They may also raise issues under international law if linkage systems favour certain trading partners over others, or if anti-leakage measures impact on trade flows or can be characterized as extraterritorial. Discussion of those issues in the US context may be helpful as a source of insight for similar problems in other legal systems.

## 2. AN OVERVIEW OF CURRENT US CLIMATE POLICY

Some background on current federal and state activities is needed to set the stage for the constitutional discussion. Some readers may be surprised to learn that the US actually does have climate mitigation policies. This section provides only a brief overview, but should at least provide a sense of the state of play. Section 2.1 discusses current state policies, while Section 2.2 discusses domestic and international initiatives by the executive branch.

### 2.1. *State Policies*

Many state governments in the US have actively engaged with the issue of climate change.<sup>8</sup> By 2006, every state had enacted legislation relevant to climate change.<sup>9</sup> As of 2009, 21 states had established goals for greenhouse gas (GHG) emissions reductions, and nearly a thousand mayors had endorsed such a goal.<sup>10</sup> One of the most popular

<sup>8</sup> State efforts are described in E. Stein, 'Regional Initiatives to Reduce Greenhouse Gas Emissions', in M.B. Gerrard (ed), *Global Climate Change and US Law* (American Bar Association, 2007), pp. 315–42; and in D. Hodas, 'State Initiatives', in Gerrard, *ibid.*, pp. 343–70.

<sup>9</sup> Hodas, *ibid.*, at p. 343. E.C. Schlanger, K.H. Engel & S. Rider (eds), *Navigating Climate Change Policy: The Opportunities of Federalism* (University of Arizona Press, 2011) provides a collection of thoughtful evaluations of this trend.

<sup>10</sup> M. Burger, 'Empowering Local Autonomy and Encouraging Experimentation in Climate Change Governance: The Case for a Layered Regime' (2009) 39 *Environmental Law Reporter* pp. 11161, 11163.

state policies is the adoption of renewable portfolio standards (RPFs), which require that a certain percentage of retail electricity sales be derived from renewable sources.<sup>11</sup> California's RPF has a particularly ambitious 33% target by 2020.<sup>12</sup>

In California, efforts focusing specifically on climate change date back to 1988, when AB 4420 called for the first inventory of in-state GHG emissions.<sup>13</sup> In 2006, Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006, or AB 32,<sup>14</sup> which requires California to reduce emissions to the 1990 level by 2020.<sup>15</sup> This law generated worldwide attention, including a statement by the United Kingdom Prime Minister that its signing represented a 'historic day for the rest of the world as well'.<sup>16</sup> The Prime Minister and the Governor of California also agreed to share best practices on market-based systems and to cooperate in investigating new technologies; similar agreements now exist between California and certain states and provinces in Australia and Canada.<sup>17</sup>

In implementing AB 32, the California state air pollution board first developed nine 'discrete early action greenhouse gas emission reduction measures',<sup>18</sup> some of which focus on reducing emissions of high global warming potential (GWP) gases. Another important early action was a low-carbon fuel standard (LCFS)<sup>19</sup> to reduce the GHG intensity of transportation fuels by 10% by 2020.<sup>20</sup> The LCFS sets a baseline, equal to the average carbon intensity for all vehicular fuels consumed in California, and requires each supplier of vehicular transportation fuels in California to reduce its average carbon intensity from that baseline by set amounts each year between 2011 and 2020.<sup>21</sup> The LCFS also allows suppliers to generate credits for exceeding the reduction required for that year, creating the opportunity for a trading market in credits among suppliers.<sup>22</sup> Thus, the LCFS creates something very much like a trading system for embedded carbon in vehicle fuels. As we will see later, it has also prompted constitutional challenges by out-of-state energy interests.

<sup>11</sup> T.P. Duane, 'Greening the Grid: Implementing Climate Change Policy through Energy Efficiency, Renewable Portfolio Standards, and Strategic Transmission System Investments' (2010) 34 *Vermont Law Review*, pp. 711–80, at 759–63; M.B. Gerrard, 'Introduction', in Gerrard, n. 8 above, pp. 1–27, at 22.

<sup>12</sup> Duane, *ibid.*, at p. 761; California Air Resources Board (CARB), 'RPS Program Overview', available at: <http://www.cpuc.ca.gov/PUC/energy/Renewables/overview>.

<sup>13</sup> AB 4420 (Sher), Chapter 1506, Statutes of 1988.

<sup>14</sup> AB 32 (Nunez), Chapter 488, California Statutes of 2006, codified at California Health & Safety Code § 38500 et seq.

<sup>15</sup> E. Chemerinsky et al., 'California, Climate Change, and the Constitution' (2007) 37(9) *Environmental Law Reporter* pp. 10653–65.

<sup>16</sup> *Ibid.*, at p. 10654.

<sup>17</sup> *Ibid.*, at p. 10659.

<sup>18</sup> AB 32 (Nunez), n. 14 above, California Health & Safety Code § 38560.5(a–b).

<sup>19</sup> Governor Arnold Schwarzenegger, Executive Order S-01-07, 18 Jan. 2007, available at: <http://www.arb.ca.gov/fuels/lcfs/eos0107.pdf>.

<sup>20</sup> CARB, 'Low Carbon Fuel Program', available at: <http://www.arb.ca.gov/fuels/lcfs/lcfs.htm>.

<sup>21</sup> *Ibid.*

<sup>22</sup> *Ibid.*

A recently adopted California cap-and-trade programme sets a declining, statewide cap on GHG emissions<sup>23</sup> and covers about six hundred industrial facilities.<sup>24</sup> But cap-and-trade is not unique to California. In the Northeast US, the Northeast Regional Greenhouse Gas Initiative (RGGI), which is currently composed of nine states,<sup>25</sup> has created a multistate trading system for power plant emissions with the goal of achieving a 10% reduction by 2019.<sup>26</sup>

## 2.2. Executive Actions Regarding Climate Change Mitigation

Action has also begun at the federal level, despite a lack of action from Congress. In *Massachusetts v. EPA*,<sup>27</sup> the Supreme Court held that GHGs are air pollutants under the Clean Air Act (CAA), and that the EPA could consider scientific issues only in the course of determining whether they presented a sufficient risk to trigger regulation under the statute. The EPA then made a formal finding that GHGs endanger human health and safety.<sup>28</sup> With this finding as a foundation, the EPA has developed regulations to reduce GHGs,<sup>29</sup> which will result in measurable reductions in US emissions. For instance, the EPA regulation of power plants could ‘capture a potential reduction of 5 to 10 percent in GHG emissions from coal – as much as about 3 percent of total US emissions’.<sup>30</sup> In general, ‘it appears a regulatory approach could achieve emissions reductions through mitigation in the domestic economy of up to 10 percent, relative to 2005 levels’, which ‘would be comparable to domestic reductions that would have been achieved under the legislative cap-and-trade proposal’.<sup>31</sup>

In the international sphere, the US joined in the Copenhagen Accord. This ‘political agreement’, which is not legally binding, endorses the need that ‘deep cuts in global emissions are required according to science, and as documented by the IPCC Fourth Assessment Report with a view to reduce global emissions so as to hold the increase in global temperature below 2 degrees Celsius’.<sup>32</sup> Developed countries have also agreed to

<sup>23</sup> See generally, CARB, ‘ARB Emissions Trading Program Overview,’ available at: <http://www.arb.ca.gov/newsrel/2010/capandtrade.pdf>.

<sup>24</sup> CARB, ‘Overview of ARB Emissions Trading Program’, 20 Oct. 2011, available at: [http://www.arb.ca.gov/newsrel/2011/cap\\_trade\\_overview.pdf](http://www.arb.ca.gov/newsrel/2011/cap_trade_overview.pdf).

<sup>25</sup> The RGGI is an initiative of the following Northeast and Mid-Atlantic States of the US: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

<sup>26</sup> See <http://www.rggi.org/design>.

<sup>27</sup> 127 S. Ct. 1438 (2007).

<sup>28</sup> See EPA, ‘Finding of Endangerment’, available at: <http://www.epa.gov/climatechange/endangerment>.

<sup>29</sup> The regulations are described on the EPA website, available at: <http://www.epa.gov/climatechange/initiatives/index.html>. The endangerment finding and the regulations were upheld in *Coalition for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102 (D.C. Cir. 2012).

<sup>30</sup> D. Burtraw, A.G. Fraas & N.D. Richardson, ‘Greenhouse Gas Regulation under the Clean Air Act: A Guide for Economists’, Resources for the Future, Discussion Paper No. 11-08, 9 Feb. 2011, at p. 14, available at: <http://ssrn.com/abstract=1759571>.

<sup>31</sup> *Ibid.*, at p. 16.

<sup>32</sup> Copenhagen Accord, Decision 2/CP.15, FCCC/CP/2009/11/Add.1, 18 Dec. 2009, para. 2, available at: <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>.

submit emissions targets and ‘commit[ted] to implement individually or jointly the quantified economy-wide emissions targets for 2020’.<sup>33</sup> The US has pledged 17% emissions reductions below 2005 levels by 2020 and, while this pledge is not legally binding, it is taken seriously by the United Nations (UN) as a sign of political commitment to addressing GHG emissions.<sup>34</sup>

Since Copenhagen, the US has continued to participate in international climate negotiations. At the Durban Conference of the Parties, agreement was reached to negotiate a legally binding global agreement by 2015.<sup>35</sup> In the meantime, the US has also engaged in other international activities, including an agreement between President Obama and President Hu for collaborative activities relating to renewable energy and energy efficiency.<sup>36</sup> For instance, the agreement includes a ‘joint US-China Eco-city Initiative between the US Department of Energy and China’s Ministry of Housing and Urban-Rural Development, under which both sides will develop guidelines and policies to support the integration of energy efficiency and renewable energy into city design and operation’.<sup>37</sup> None of these cooperative agreements have been ratified by the Senate as treaties or enacted into ordinary legislation by Congress, raising legal issues that will be addressed in Section 4.2.

### 3. CONSTITUTIONAL LIMITS ON EFFORTS TO LIMIT CARBON LEAKAGE

Carbon leakage can undermine the effectiveness of mitigation efforts, creating the frustrating and perverse effect that reducing carbon in one place simply makes it pop up somewhere else. As we will see in Section 3.1, the federal government may be able to avoid leakage to some extent by easing regulation on industries where it would be the most serious problem. Section 3.2 discusses the problem at the state level, where efforts to reduce leakage are likely to be challenged under the dormant commerce clause.

#### 3.1. *The Leakage Problem and Federal Responses*

We begin this section with a closer look at the leakage problem. We will then consider the federal government’s authority to limit leakage across American borders.

<sup>33</sup> Ibid., at para. 4.

<sup>34</sup> L. Friedman, ‘U.S. Bound by Obama’s Copenhagen Emissions Pledge – U.N. Official’, *New York Times Greenwire*, 20 Jan. 2010, available at: <http://www.nytimes.com/gwire/2010/01/20/20greenwire-us-bound-by-obamas-copenhagen-emissions-pledge-17687.html>.

<sup>35</sup> UN, ‘Durban Conference Delivers Breakthrough in International Community’s Response to Climate Change’, available at: <http://www.un.org/wcm/content/site/climatechange/pages/gateway/the-negotiations/durban>.

<sup>36</sup> White House Office of the Press Secretary, ‘Fact Sheet: U.S.–China Cooperation on Climate Change, Clean Energy, and the Environment’, 19 Jan. 2011, available at: <http://www.whitehouse.gov/the-press-office/2011/01/19/fact-sheet-us-china-cooperation-climate-change-clean-energy-and-environm>.

<sup>37</sup> Ibid.

*Carbon leakage as a policy issue*

Carbon leakage is a possible result of the market effects of climate regulation. Limitations on fossil fuels in one jurisdiction or one sector free up more supply for other users, and the expanded availability of the fuels for those users can expand use in other sectors or in other jurisdictions. In addition, capital investment in a particular sector may shift to countries with fewer emissions controls.<sup>38</sup> The result is that efforts by one jurisdiction to reduce carbon emissions are partially offset by increased emissions in other jurisdictions, thus undermining policy effectiveness in mitigating climate change.

The magnitude of the leakage problem is contested, but it is probably not insignificant. A recent study by Resources for the Future (RFF)<sup>39</sup> found that the highest sectoral leakage level was around 27% for petroleum refineries,<sup>40</sup> with an average rate across industries of around 5% with the use of offsetting measures such as output subsidies or trade adjustments.<sup>41</sup> The RFF study also found that ‘about half of trade-related leakage from the US to non-policy countries is due directly to changes in the volume of trade, and the other half to higher emissions intensities in non-Annex I trading partners induced by lower world fuel prices’.<sup>42</sup> A team from the University of Chicago and Argonne National Laboratory conducted another recent study,<sup>43</sup> which considered the effect of adopting a carbon tax in the developed countries. It found that such a tax would result in significant global emissions reductions and only modest leakage,<sup>44</sup> while border tax adjustments reduced leakage substantially.<sup>45</sup> Leakage from state-level programmes could be higher because it is easier for industry to relocate within the US than internationally.

*EPA regulatory responses*

The EPA has some regulatory tools that should allow it to limit the carbon leakage caused by its own regulations.<sup>46</sup> In terms of transportation fuels, the EPA has explicit

<sup>38</sup> See J.B. Wiener, ‘Think Globally, Act Globally: The Limits of Local Climate Policies’ (2007) 155 *University of Pennsylvania Law Review*, pp. 1961–80, at 1967–8; C. Coglianese & J. D’Ambrosio, ‘Policymaking under Pressure: The Perils of Incremental Responses to Climate Change’ (2008) 40 *Connecticut Law Review*, pp. 1411–30, at 1419.

<sup>39</sup> L. Adkins et al., ‘Carbon Pricing with Output-Based Subsidies: Impact on US Industries over Multiple Time Frames’, Resources for the Future, Discussion Paper No. 12–27, 28 June 2012, available at: <http://ssrn.com/abstract=2099768>.

<sup>40</sup> *Ibid.*, at p. 21.

<sup>41</sup> *Ibid.*, at p. 22.

<sup>42</sup> *Ibid.*, at p. 26.

<sup>43</sup> J. Elliott et al., ‘Unilateral Carbon Taxes, Border Tax Adjustments and Carbon Leakage’, University of Chicago Institute for Law & Economics, Olin Research Paper No. 600, 27 Feb. 2012, available at: <http://ssrn.com/abstract=2072696>.

<sup>44</sup> *Ibid.*, at p. 2.

<sup>45</sup> *Ibid.*, at p. 3.

<sup>46</sup> Federal regulation of an activity, even if less vigorous than state regulation, may lower the incentive to shift emissions out of state. In addition, federal agencies may be able to pre-empt regulations that favour fossil fuels in some states, though this is a complex issue and dependent on a suitable federal statutory scheme to be used as a basis for pre-emption: see C.M. Sharkey, ‘Inside Agency Preemption’ (2012) 110 *Michigan Law Review*, pp. 521–96.



authority to impose regulations based on carbon emissions, wherever they occur in the lifecycle of the product or geographically. In the Energy Independence and Security Act (EISA), Congress directed the EPA to promulgate regulations to ensure that specific volumes of certain types of biofuel were used within the US instead of gasoline or diesel.<sup>47</sup> Congress mandated the EPA to consider:

[t]he aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes) ... related to the *full fuel lifecycle*, including *all* stages of fuel and feedstock production and distribution, from feedstock generation or extraction through distribution and delivery and use of finished fuel to the ultimate consumer.<sup>48</sup>

Thus, the EPA has direct authority to disfavour imported vehicle fuels that have high-carbon intensity, reducing the risk that those fuels will displace low-carbon fuels from the market.

In terms of carbon from stationary sources such as power plants, the EPA has relied on technology-based mandates in the CAA as a basis for regulation. These mandates take into account the economic burden on the regulated sector of industry. For example, the best available control technology (BACT) is defined to be the degree of emissions reduction at an individual plant that the EPA determines to be achievable 'taking into account energy, environmental, and economic impacts and other costs'.<sup>49</sup> This definition seems to leave ample room for considering potential carbon leakage in industries exposed to international competition.

### 3.2. *Leakage and the States*

The states are in a different position. They face the potential for leakage<sup>50</sup> but, unlike the federal government, they do not have control of their own borders. Their otherwise broad powers are limited by the judicially created constitutional doctrine known as the 'dormant commerce clause', which may impact on efforts to combat carbon leakage. (The commerce clause authorizes Congress to regulate commerce; the judicial doctrine applies to protect interstate commerce when Congress has not exercised its power, which therefore remains 'dormant'.) For instance, in *Rocky Mountain Farmers Union v. Goldstene*<sup>51</sup> a federal district court struck down California's low-carbon fuel standard. The court found the standard to be discriminatory because it included geographic factors such as transportation distances and the carbon-intensity of the electricity used for production from the local grid.<sup>52</sup> It also found that the standard was impermissibly extraterritorial because it took into account carbon emissions that occurred outside the state.<sup>53</sup> Putting aside the details of the regulations involved in

<sup>47</sup> 42 U.S.C. § 7545(o)(2)(A).

<sup>48</sup> *Ibid.*, § 7545(o)(1)(H) (emphases added).

<sup>49</sup> CAA § 169(3), 42 U.S.C. § 7479(3).

<sup>50</sup> For instance, California is now considering steps to combat leakage: see Kahn, n. 4 above.

<sup>51</sup> 843 F.Supp.2d 1071 (E.D. Cal., 2011).

<sup>52</sup> *Ibid.*, at 1086–9.

<sup>53</sup> *Ibid.*, at 1090–3.

that case, however, well-designed state regulations should be able to combat leakage without running afoul of the dormant commerce clause. We will first consider the discrimination issue and then extraterritoriality.

Before considering these two constitutional hurdles, it should be noted that even if state laws survive challenge as being discriminatory or extraterritorial, the dormant commerce clause doctrine still requires application of the balancing test in *Pike v. Bruce Church, Inc.*<sup>54</sup> Under the *Pike* test, state laws are invalid if the burden on interstate commerce is ‘clearly excessive in relation to the putative local benefits’.<sup>55</sup> States should be able to demonstrate the strength of their interest in reducing emissions, given what we now know about climate change. In *Massachusetts v. EPA*,<sup>56</sup> the Court emphasized that climate change threatens the state’s semi-sovereign interest in the welfare of its citizens and in protecting its territory (as a result of sea-level rise).<sup>57</sup> But the balancing test is fact-intensive, making it difficult to provide much in the way of general statements about its operation.

The larger threats to state regulation are posed by the discrimination and extraterritoriality arguments. For that reason, we focus first on claims that anti-leakage laws discriminate against interstate commerce, and then turn to claims that they amount to extraterritorial regulation of emission sources. Finally, we consider the alternative of a tax on embedded carbon.

It is worth noting that climate change presents an unusually strong case for allowing states to take into account conditions during production and transportation, even when this requires distinguishing between different geographic origins or requires the state to concern itself with events outside its borders. If the production or transportation of an item sold in the state releases a ton of carbon, the effect on the state is the same regardless of where in the product’s lifecycle the emission takes place. Moreover, because carbon emissions are tied to the electricity sources used in production and transportation to the market, the location of production is almost inevitably relevant. These facts provide the basis for the concept of embedded carbon and create a rationale for forms of regulation that might seem more suspect in other contexts.

### *The ban on discriminatory state regulation*

If a state attempts to control the carbon intensity of goods and services sold within the state, out-of-state producers may well complain. If they are located in carbon-friendly states that lack climate regulation, their products are likely to be more carbon intensive than similar products produced in the regulating state. Those out-of-state producers are likely to claim that the state is discriminating against interstate commerce.

<sup>54</sup> 397 U.S. 137 (1970).

<sup>55</sup> *Ibid.*, at 142.

<sup>56</sup> 127 S. Ct. 1438 (2007).

<sup>57</sup> *Ibid.*, at 1458. One possible argument is that, although the state’s interests are weighty, state legislation can only have a minimal effect in attaining those goals. The Court rejected a similar argument in *Massachusetts v. EPA* that a federal action was too minor to have any effect on climate change by itself: *ibid.*, at 1457.

The seminal modern case on discriminatory state regulation is *City of Philadelphia v. New Jersey*,<sup>58</sup> in which New Jersey limited imports of solid waste because of concerns over limited disposal capacity. Bypassing disputes about the purpose and effect of the programme, the Court emphasized the principle of non-discrimination:

Whatever New Jersey's ultimate purpose, it may not be accomplished by discriminating against articles of commerce coming from outside the State unless there is some reason, apart from their origin, to treat them differently.<sup>59</sup>

Discrimination can be hard to define when a statute does not directly distinguish between in-state and out-of-state producers. A state law 'discriminates only when it discriminates between similarly situated in-state and out-of-state interests'.<sup>60</sup> High-carbon intensity and low-carbon intensity producers might or might not be considered 'similarly situated' under this approach. For instance, Brazilian sugarcane ethanol and Midwestern corn ethanol are chemically identical, but might or might not be considered similarly situated given the different emissions relating to their production. Under the Supreme Court's holding in *Exxon Corporation v. Maryland*,<sup>61</sup> interfering with the natural operation of the national market does not in itself implicate the commerce clause; instead, plaintiffs must show that the regulation will increase the total market share of in-state goods.<sup>62</sup> Thus, it is not enough that some out-of-state producers are harmed if this is offset by benefits to other out-of-state producers.

Even if carbon limits impact on some imported goods more than some local goods, the argument that a regulation discriminates in effect (rather than on its face) should be received cautiously:

The proof of the pudding here must be in the eating, not in the picture on the box as seen through the partial eyes of the beholder – which is especially true in a case where neither facial economic discrimination nor improper purpose is an issue.<sup>63</sup>

Regulations that subject imports to the same standards as home-produced products should not be considered discriminatory regardless of how carbon intensities are distributed between local and imported goods.<sup>64</sup> Admittedly, it is not necessarily self-evident what aspects of an item's production and use involve real differences between goods and which are exogenous to the nature of the goods. Regulation of embedded carbon, however, poses less of a threat of protectionism to the extent that

<sup>58</sup> 437 U.S. 617 (1978).

<sup>59</sup> *Ibid.*, at 627.

<sup>60</sup> *Allstate Insurance Co. v. Abbott*, 495 F.3d 151, 163 (9th Cir. 2007).

<sup>61</sup> 437 U.S. 117 (1978); accord, *Hampton Feedlot, Inc. v. Nixon*, 249 F.3d 814, 819 (8th Cir. 2001).

<sup>62</sup> *Ibid.*, at 126 n. 16.

<sup>63</sup> *Black Star Farms LLC v. Oliver*, 600 F.3d 1225, 1232 (9th Cir. 2010). The plaintiffs had failed to carry this burden of proof. The Ninth Circuit also said in *Black Star Farms* that '[a]n effect is not discriminatory, in violation of the dormant commerce clause, if it results from natural conditions': *ibid.*, at 1234, quoting *Cherry Hill Vineyard, LLC v. Baldacci*, 505 F.3d 28, 38 n.7 (1st Cir. 2007). The fact that some production processes produce more carbon than others might be considered such a natural phenomenon.

<sup>64</sup> See K.H. Engel, 'The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation' (1999) 26 *Ecology Law Quarterly*, pp. 243–349, at 288–9.

the measures use a uniform, scientifically accepted methodology to deal with the carbon content of goods, wherever those goods are produced.

It is also worth considering that congressional intent signals deference to state regulation of air emissions. Discrimination can be a slippery concept in any setting, and the commerce clause is no exception. The ban on regulations that discriminate against commerce in effect is particularly poorly defined. A court that is unsympathetic to state climate regulation could probably find some doctrinal basis for objecting to efforts to control leakage. But if courts understand the reasons for state regulation, well-designed regulations should be able to avoid the anti-discrimination rule.

### *The extraterritorial regulation issue*

A related issue is whether measures designed to control leakage violate the strictures of the dormant commerce clause against ‘extraterritorial’ regulation. It is worth considering the case law in some detail, given the relative obscurity of this area of doctrine.

In the leading modern case, the Court struck down a state law requiring liquor wholesalers to give ‘most favoured nation’ treatment to New York retailers, because the state law indirectly constrained the prices that the wholesalers could charge outside the state.<sup>65</sup> A few years later, the Court struck down a similar law from another state.<sup>66</sup> The only other Supreme Court extraterritoriality case in the past 30 years involved an unusual state anti-takeover law, which in some circumstances penalized securities sales taking place in other states between citizens of those states.<sup>67</sup>

These three relatively recent cases relied on a Depression-era case, *Baldwin v. G.A.F. Seelig, Inc.*<sup>68</sup> *Baldwin* involved an effort to protect New York farmers from out-of-state competition. New York banned the in-state resale of milk acquired outside the state at a price below the New York wholesale floor. Violators were subject to heavy penalties.<sup>69</sup> The *Baldwin* Court held that the state could not extend its price control regime beyond

<sup>65</sup> *Brown-Forman Distillers Corporation v. New York State Liquor Authority*, 476 U.S. 573 (1986). The Court held that ‘[r]equiring a merchant to seek regulatory approval in one State before undertaking a transaction in another directly regulates interstate commerce’: *ibid.*, at 582. The Court held a similar law applicable to beer sales to be invalid *per se* as it had the same practical effect: *Healy v. Beer Inst.*, 491 U.S. 324 (1989). A recent commentator describes *Healy* as the high tide of the extraterritoriality principle, which has since retreated and now may be moribund: see B.P. Denning, ‘Extraterritoriality and the Dormant Commerce Clause: A Doctrinal Post-Mortem’, 7 Feb. 2013, available at: <http://ssrn.com/abstract=2213511>.

<sup>66</sup> The details of the laws differed, but the Court found no practical difference between the New York and Connecticut laws, which were equally coercive of out-of-state conduct: *ibid.*, at pp. 338–99.

<sup>67</sup> *Edgar v. MITE Corporation*, 457 U.S. 624 (1982) (plurality opinion), cited in *Healy*, n. 65 above, at 336. *Edgar* involved an Illinois law that required approval of tender offer terms by Illinois officials if a corporation had a modest Illinois connection: *ibid.*, at 627. The majority struck down the law as an undue burden on commerce: *ibid.*, at 646. A plurality opinion also faulted the law for banning some transactions between citizens of other states with no state nexus: *ibid.*, at 642. Making a tender offer to these non-residents would trigger financial penalties and criminal prosecution: *ibid.*, at 630 n.5.

<sup>68</sup> 294 U.S. 511 (1935).

<sup>69</sup> *Ibid.*, at 520.

its borders, but the Court clearly recognized that the state had a legitimate interest in the production process, even if it took place in another state.<sup>70</sup>

The lower courts have resisted efforts to recast the limited Supreme Court precedents into a broad shield against state regulation.<sup>71</sup> In the few Court of Appeals cases to find extraterritoriality, the courts considered the state law to be the functional equivalent of a direct regulation of out-of-state actors or conduct.<sup>72</sup> In contrast, they have refused to find extraterritoriality when a regulation ‘does not directly regulate the actions of parties located in other states, it regulates contractual relationships [here, fuel sales] in which at least one party is located in [the regulating state]’.<sup>73</sup> In a unified national market, any important state regulation is likely to have some spillover effects on other markets. Rather than forming a basis for a *per se* rule, it would be better to consider these out-of-state effects on out-of-state markets as simply part of the *Pike* balancing test.<sup>74</sup> Failing that, the extraterritoriality concept should be confined to a narrow category of cases of blatant overreaching by states, lest it swallow up the balancing test.

Anti-leakage measures are definitely not extraterritorial in form, since they apply only to goods imported into the regulating state. Yet they do impact on behaviour outside the state. To the extent that the extraterritoriality doctrine is aimed at those impacts, however, it is a crude tool compared with the *Pike* balancing test.

In short, the extraterritoriality prong of the commerce clause doctrine is strong medicine. Because of its draconian consequences, courts have employed it sparingly and only in cases where the state exercised effective control over transactions wholly outside its borders. If the doctrine is given its proper, narrow scope, it should not pose a challenge to well-designed state efforts to regulate embedded carbon in locally consumed goods.

### *The carbon tax alternative*

State taxes are also subject to the dormant commerce clause, but the judicial doctrine has developed differently. This requires a fresh analysis to determine whether a state

<sup>70</sup> Notably, the Court held that New York could require out-of-state producers to comply with the same safeguards defined by New York in producing milk for the New York market: *ibid.*, at 501.

<sup>71</sup> See *Gravquick A/S v. Trimble Navigation Intern. Ltd.*, 323 F.3d 1219 (9th Cir. 2003); *Nat'l Elec. Mfrs. Ass'n*, 272 F.3d 104, 110–2 (2d Cir. 2001); *Cotto Waxo Co. v. Williams*, 46 F.3d 790 (8th Cir. 1995); *SPGGC, LLC v. Blumenthal*, 505 F.3d 183, 193–6 (2d Cir. 2007).

<sup>72</sup> In *Nat'l Collegiate Athletic Ass'n v. Miller*, 10 F.3d 633 (9th Cir. 1993), a state law effectively required a nationwide organization to change its procedural rules in many cases that had zero connection with that state: *ibid.*, at 639. Similarly, in *Nat'l Solid Wastes Mgt. Ass'n v. Meyer*, 63 F.3d 652 (7th Cir. 1995) (*Meyer I*), Wisconsin banned imports of waste from communities that failed to recycle enough of their waste, including waste-streams headed elsewhere than Wisconsin. When the Court struck down that law, Wisconsin responded by requiring that an exporting community pass an ordinance imposing recycling standards for waste destined for Wisconsin: *Nat'l Solid Wastes Mgt. Ass'n v. Meyer*, 65 F.3d 1151 (7th Cir. 1999) (*Meyer II*). Besides holding that Wisconsin lacked the power to require other jurisdictions to enact laws, the court found this cosmetic change in the statute irrelevant because of the expense, if not impossibility, of separating waste streams: *ibid.*, at 1151–2.

<sup>73</sup> *Gravquick A/S*, n. 71 above, at 1124.

<sup>74</sup> N. 54 above.

could impose a tax based on the life-cycle carbon intensity of goods (including electric power). There seem to be two arguments for upholding such a tax as applied to imported goods.

If a state imposes a carbon tax internally, a carbon tax on imports could be considered a compensatory tax with respect to the tax on domestically produced goods.<sup>75</sup> To be valid, a state would have to identify an in-state burden, show that the tax precisely compensates for the advantage that otherwise would accrue to out-of-state firms, and that it falls on substantially similar events.<sup>76</sup>

An alternative might be to impose a consumption tax measured by carbon intensity (but with the amount capped by some percentage based on the price of the goods). The taxable event would not be the production or import of goods; it would be the purchase or use of goods by consumers within the state. Because exported goods would, by definition, fail to have the taxable event (in-state consumption), such a tax would have the advantage of allowing exported goods to avoid the burden of the carbon tax, limiting the tendency for production to shift to unregulated sources outside the state. Such a tax would have to pass the four-part *Complete Auto Body* test.<sup>77</sup> This test requires that a state tax should apply only to activities that have a substantial nexus with the state (consumption in the state), be fairly apportioned (based on embedded carbon content), avoid discrimination against interstate commerce (the tax would be the same for all similar goods), and be fairly related to services or benefit provided by the taxing jurisdiction (which does not require earmarking, but only that the transaction obtains some assistance, such as legal enforceability of a sale, from state law).

A carbon-based sales tax should be able to satisfy all four requirements. Firstly, consumption within the state clearly has a nexus with the state. Secondly, if the rate is uniform between locally produced and imported goods, it should not pose a discrimination problem. Thirdly, the apportionment requirement is satisfied because, if every state imposed the same tax, no carbon emission would be taxed more than once. To be on the safe side, however, the tax could allow a credit for carbon taxes paid by producers. Fourthly, taxing carbon should satisfy the services/benefits test, since in-state consumers are receiving the benefits of many climate change-related state services, such as climate adaptation efforts. This type of carbon tax does not seem to have received serious consideration, but it may be worth a closer look as an alternative to carbon trading.

A full-scale carbon tax would be complex, but a simpler first step would be an energy tax paid by the first in-state energy seller. The energy tax could be based on the carbon content of the highest emitting category – gasoline for vehicles or coal for electricity. Unlike a full-scale carbon tax, there would be no credits for sequestration of

---

<sup>75</sup> This argument is developed in C. Aung, 'The Regulation of Greenhouse Gas Emissions by New York State from a Legal Perspective: Is a Tax or Market-Based System Optimal?' (2009) 29 *Pace Law Review*, pp. 739–46, at 745–9; F. Muller & J.A. Hoerner, 'Greening State Energy Taxes: Carbon Taxes for Revenue and the Environment' (1994) 12 *Pace Environmental Law Review*, pp. 5–60, at 44–56.

<sup>76</sup> See *Fulton Corporation v. Faulkner*, 516 U.S. 325, 334–44 (1996).

<sup>77</sup> See *Complete Auto Transit, Inc. v. Brady*, 430 U.S. 274 (1977).

emissions or creation of carbon sinks, nor would the state be obligated to assess the carbon content of particular fuels. Instead, the burden of determining carbon content would be shifted to sellers, who could receive credits for using lower carbon fuels. Such a tax would be relatively simple to administer and would be completely non-discriminatory between in-state and out-of-state energy producers. Rather than taxing out-of-state activities, it would subsidize them by providing a credit for out-of-state renewable energy sources selling inside the state.

#### 4. CONSTITUTIONAL LIMITS ON TRANSBOUNDARY LINKAGES

We have been concerned with anti-leakage efforts that involve legal action by only a single jurisdiction. Jurisdictions also have incentives to use explicitly transboundary mechanisms in order to coordinate with other jurisdictions, domestic and foreign, which are also addressing climate change. For instance, two jurisdictions might choose to link their emissions trading systems, so that allowances purchased in one jurisdiction may be used in the other. We will consider the extent of constitutional authority to engage in some form of linkage, first in terms of the states (Section 4.1) and then of the President (Section 4.2).

##### 4.1. *Barriers to Transboundary Linkages by State Governments*

State emissions trading systems often involve linkages with other states or Canadian provinces. For instance, in 2001, the Conference of New England Governors and Eastern Canadian Premiers adopted a Climate Action Plan, pledging to reduce GHG emissions to 1990 levels by 2010 and 10% below those levels by 2020.<sup>78</sup> Such linkages offer several advantages. States can ‘magnify the importance of their climate change initiatives by banding together with other state and local governments’.<sup>79</sup> In an emissions trading system, ‘size matters’ because ‘a greater number of sources makes possible a greater number of trades thus making the market more competitive’.<sup>80</sup> Finally, regional systems may fit well with the regional organization of the electricity grid.<sup>81</sup>

Despite their advantages, regional agreements may encounter constitutional issues.<sup>82</sup> We will begin by addressing the validity of state participation in cooperative systems with other states, and then turn to the special problem of participation by foreign jurisdictions.

##### *Interstate cooperation and the compact clause*

The first issue is whether congressional consent to a regional agreement is required under the compact clause, which provides that ‘[n]o State shall, without the Consent of Congress ... enter into any Agreement or Compact with another State, or with

<sup>78</sup> K.H. Engel, ‘Mitigating Global Climate Change in the United States: A Regional Approach’ (2005) 14 *New York University Environmental Law Journal*, pp. 54–85, at 65.

<sup>79</sup> *Ibid.*, at p. 64.

<sup>80</sup> *Ibid.*, at p. 69.

<sup>81</sup> *Ibid.*, at p. 71.

<sup>82</sup> For discussion of the advantages of regional linkage, see Engel, *ibid.*, at pp. 68–73.

a foreign Power'.<sup>83</sup> To what extent does this clause prevent cooperation by states with other states or foreign jurisdictions, for example, in jointly designing and implementing emissions trading systems? The answer seems to be that the compact clause should not be a major problem for states pursuing linkages with other jurisdictions.

The Supreme Court has not construed the compact clause to ban all agreements between states, but only those that are 'directed to the formation of any combination tending to the increase of political power in the States, which may encroach upon or interfere with the just supremacy of the United States'.<sup>84</sup> On this basis, the Court upheld the formation of a multistate tax commission formed to develop tax policy for individual states, which would then be adopted separately by each member state.<sup>85</sup> The commission had the power to conduct audits using subpoenas in any of the member states' courts, including audits of multinational corporations.

Similarly, in *Northeast Bancorp, Inc. v. Board of Governors of the Federal Res. Sys.*<sup>86</sup> the Court found that no compact existed despite the existence of deliberately parallel state laws and informal agreements between state officers relating to the approval of the acquisition of local banks by out-of-state banks. Although parallel state laws were adopted in concert, the Court found it more significant that no joint regulatory body was established, the statutes were not conditional on each other, and states were not legally bound.<sup>87</sup> But even if an agreement did exist in compact clause terms, the Court held that the agreement was not a compact requiring congressional consent. The reason was that the statutes did not 'either enhance the *political* power of the New England States at the expense of other States or have an "impact on our federal structure"'.<sup>88</sup> Note that the text of the compact clause does not distinguish between other states and other countries, so the reasoning of *Northeast Bancorp* would appear to apply in both contexts.

In designing trading systems, states have been careful to respect the strictures of the compact clause. The Northeast trading system, RGGI, was the product of two years of negotiations between states. The governors of the states entered into a memorandum of understanding, which ultimately led to the creation of a model rule for adoption by individual states. States then individually adopted regulations based on the model rule. Note that at no point were the states as sovereign entities legally bound to take any action, nor did they delegate regulatory power to an interstate entity. All of this is in line with the Supreme Court's rulings upholding the multistate tax commission and bank acquisition agreements.<sup>89</sup>

A virtually forgotten provision of the CAA eliminates any remaining doubt about the legality of interstate linkage efforts such as the RGGI.<sup>90</sup> Section 102 of the CAA is

<sup>83</sup> US Constitution, Art. I, s. 10, cl. 3.

<sup>84</sup> *Virginia v. Tennessee*, 148 U.S. 503, 519 (1893).

<sup>85</sup> *United States Steel Corporation v. Multistate Tax Commission*, 434 U.S. 452 (1978).

<sup>86</sup> 472 U.S. 159 (1985).

<sup>87</sup> *Ibid.*, at 175.

<sup>88</sup> *Ibid.*, at 176.

<sup>89</sup> See Duane, n. 11 above, at p. 733.

<sup>90</sup> Recall that, under the Supreme Court's ruling in *Massachusetts v. EPA*, GHGs are considered to be 'air pollutants' covered by the CAA.



entitled ‘cooperative activities’.<sup>91</sup> Subsection (a) calls upon the EPA to encourage ‘cooperative activities by the States and local government’ and the passage of uniform state laws. Subsection (c) is even more clearly on point. It provides:

The consent of the Congress is hereby given to two or more States to negotiate and enter into agreements or compacts ... for (1) cooperative effort and mutual assistance for the prevention and control of air pollution and the enforcement of their respective laws relating thereto, and (2) the establishment of such agencies, joint or otherwise, as they may deem desirable for making effective such agreements or compacts. No such agreement or compact shall be binding or obligatory upon any State a party thereto unless and until it has been approved by Congress.<sup>92</sup>

This provision squarely covers RGGI-like interstate agreements, given that the Supreme Court held that GHGs are a form of air pollution under the statute. Congressional consent is needed only in order to make an agreement in respect of GHGs legally binding on the states. Under the statute, if states retain the right to withdraw, further congressional consent is not needed, whereas if they assume irrevocable legal duties the statute does not apply and the compact clause requires congressional consent to the agreement. (Once such consent is forthcoming, states may be sued in the federal courts for breach of the agreement.) Thus, although states may retain the right to withdraw, an interstate trading agreement seems permissible even if it goes beyond the safe harbour provided by the Supreme Court opinions.<sup>93</sup> In other words, detailed coordination is permissible so long as an exit option remains available.

### *Foreign affairs pre-emption*

A knottier issue arises in the context of state agreements with foreign jurisdictions. Do such agreements infringe the exclusive federal power over foreign affairs?<sup>94</sup> The Constitution gives various organs of the federal government the authority to enter into treaties, receive ambassadors, and go to war. Other provisions ban states from making war or entering into treaties (but not necessarily ‘agreements’ or ‘compacts’ with foreign states, although the distinction is not clearly defined). Thus, it is not difficult to discern a constitutional purpose to give the federal government exclusive control over

<sup>91</sup> CAA § 102, 42 U.S.C. §7402.

<sup>92</sup> Ibid., §102(c), 42 U.S.C. §7402 (c). A concluding sentence provides that compacts relating to ‘control and abatement of air pollution in any air quality control region’ can only include states in that region. That sentence seems to have no application to climate change, which does not relate to a specific air quality control region.

<sup>93</sup> Section 102 may also be relevant to certain kinds of discrimination claim. States outside the agreement (and their firms) can hardly complain that they fail to receive the benefits of an agreement that they have not entered into.

<sup>94</sup> See Note, ‘Foreign Affairs Preemption and State Regulation of Greenhouse Gas Emissions,’ n. 5 above; Kysar, n. 2 above. A concise doctrinal overview can be found in J. Resnick, ‘Foreign as Domestic Affairs: Rethinking Horizontal Federalism and Foreign Affairs Preemption in Light of Translocal Internationalism’ (2007) 57 *Emory Law Journal*, pp. 31–92, at 71–8. As Kysar points out, similar issues arise under one prong of the Supreme Court’s foreign commerce clause jurisprudence, which prohibits state regulation when it might prevent the nation from ‘speaking with one voice when regulating commercial relations with foreign governments’: Kysar, n. 2 above, at p. 1654, quoting *Japan Line, Ltd v. County of Los Angeles*, 441 U.S. 434 (1979).

foreign affairs. Nevertheless, in an increasingly globalized society, it is difficult for states to ignore the world beyond the borders of the United States. It seems to be increasingly common for states to reach out beyond national borders in their activities. Recent Supreme Court decisions create uncertainties as to the constitutional validity of such efforts.

The Supreme Court has issued two fairly recent opinions that deal directly with implied restrictions on state regulatory authority affecting foreign affairs.<sup>95</sup> The first of these is *Crosby v. National Foreign Trade Council*.<sup>96</sup> In 1996, the state of Massachusetts passed a law that prohibited state or local governments from doing business with companies that were themselves doing business with Burma (now Myanmar). The Court concluded that the state law interfered with a provision of the federal law that gave the President discretion to control economic sanctions against Burma. Congress had enacted initial sanctions but gave the President the power to end the sanctions if he certified that Burma had made progress on human rights; he also had the power to reimpose sanctions in the event of backsliding and to suspend sanctions in the interest of national security. The Court doubted that Congress would have given such broad authority to the President while allowing states to undermine the effect of his decisions. Also, the state sanctions were harsher than the federal sanctions, trespassing beyond the limits Congress had set in the degree of appropriate pressure. Finally, in the Court's view, the state law conflicted with the congressional directive for the President to help to develop a multinational Burma strategy. The existence of sanctions beyond the President's control would undermine the President's ability to engage in effective diplomacy. As the Court said, the state laws 'compromise the very capacity of the President to speak for the Nation with one voice in dealing with other governments'.<sup>97</sup>

This broad language in respect of the President's role may be troublesome in terms of agreements between states and foreign jurisdictions relating to climate change. But *Crosby* is clearly distinguishable on its facts. In *Crosby*, the state law conflicted with the clear congressional directive that the Court read to give the President exclusive control over sanctions against Burma. There is no equivalent federal statute giving the President exclusive authority over the creation of transnational emissions trading. Indeed, while Congress has not spoken directly on the matter, the CAA states that controlling air pollution (including GHGs under *Massachusetts v. EPA*) is the 'primary responsibility of States and local governments' rather than the federal government generally or the President in particular.<sup>98</sup>

The Court's more recent ruling in *American Insurance Ass'n v. Garamendi*<sup>99</sup> is more difficult to interpret. California had passed legislation dealing with World War II-era insurance policies held by European Jews, many of which were either confiscated

<sup>95</sup> An earlier significant decision was *Zschemig v. Miller*, 389 U.S. 429 (1968), which struck down an Oregon law that allowed aliens to inherit property in that state only if their home country allowed Americans to inherit the property of that country's citizens.

<sup>96</sup> 530 U.S. 363 (2000).

<sup>97</sup> *Ibid.*, at 381.

<sup>98</sup> CAA § 101(a)(4), 42 U.S.C. § 7401(a)(3).

<sup>99</sup> 539 U.S. 396 (2003).

by the Nazis or dishonoured by insurers after the war. Ultimately, the Allied governments mandated restitution to Nazi victims by the West German government. Unfortunately, although a large number of claims were paid, many others were not, and large-scale litigation resulted after German reunification.

The US government entered into negotiations to try to resolve the dispute, resulting in an agreement with Germany. The German government agreed to provide substantial monetary compensation via a foundation, while the federal government pledged to try to get state and local governments (and courts) to respect the agreement as a complete settlement. In the meantime, California passed a law that required any insurer doing business in the state to disclose information about all policies sold in Europe between 1920 and 1945. Officials in California were unmoved by a protest from the federal government that the statute would possibly derail its agreement with Germany.

A narrowly divided Court struck down the Californian law.<sup>100</sup> According to the majority, the consistent presidential policy had been to encourage voluntary settlement funds in preference to litigation or coercive sanctions. California sought to place more pressure on foreign companies than the President had been willing to exert. This clear conflict between the federal policy and state law was itself a sufficient basis for pre-emption. The majority found the argument for the pre-emption issue particularly persuasive given the weakness of the state's interest in terms of traditional state legislative activities.<sup>101</sup>

*Garamendi* contains broad language about the need to preserve presidential bargaining chips and the exclusive federal role in foreign affairs. It is not hard to construct an argument that refusing to regulate US emissions without a treaty would give the President a bargaining chip in negotiations over a climate treaty. Thus, *Garamendi* casts a potential shadow on state enactments having international implications.<sup>102</sup>

On the other hand, *Garamendi* could be read narrowly to apply only to coercive state legislation when the international impact is disproportionate to the state's domestic interest. California's law had large international repercussions compared with the state's slim domestic interest in protecting its own citizens. The state's action was also clearly intended to have a coercive effect on specific international entities, and such coercive efforts are most likely to prompt a foreign backlash. In contrast, linking with a foreign emissions trading system is voluntary on the part of the foreign jurisdiction and is likely to be greeted with approval abroad rather than triggering a negative reaction.

<sup>100</sup> The majority included a conservative (Chief Justice Rehnquist) and four of the Court's centrist judges (Souter, O'Connor, Kennedy, and Breyer), while the dissent contained two liberals (Ginsburg and Stevens) as well as the Court's two most conservative members (Scalia and Thomas).

<sup>101</sup> The dissent cogently argued that upholding the state law 'would not compromise the President's ability to speak with one voice for the Nation', and that the Court should reserve foreign affairs pre-emption for 'circumstances where the President, acting under statutory or constitutional authority, has spoken clearly to the issue at hand': 539 U.S. 396 (2003), at 442.

<sup>102</sup> For criticism of *Garamendi*, see B.P. Denning & M.D. Ramsey, 'American Ins. Ass'n v. *Garamendi* and Executive Preemption in Foreign Affairs' (2004) 46 *William & Mary Law Review*, pp. 825–950, at 919–21.

*Garamendi*'s broader language about presidential authority to pre-empt state law may have been tempered by the later decision in *Medellin v. Texas*.<sup>103</sup> *Medellin* was a complex case involving state violation of the directives of an international consular treaty, as the treaty was interpreted by a decision of the International Court of Justice (ICJ). The Supreme Court found that the ICJ decision was not self-executing and did not bind the states directly. But President George W. Bush had also issued a memorandum stating that the 'United States will discharge its international obligations ... by having State courts give effect to the [ICJ] decision in accordance with general principles of comity'. The Court rejected the President's argument that he had inherent authority 'to establish binding rules of decision that preempt state law'. *Garamendi* was not directly at issue, but the Court was clearly less sympathetic with the argument that presidential actions had the effect of pre-empting state law without any support from a treaty, statute, or clear history of congressional acquiescence. Thus, *Garamendi* may rest on the existence of the executive agreement with Germany rather than on more amorphous considerations relating to the President's general role in foreign affairs.

In any event, whatever the scope of *Garamendi*, another distinguishing factor is provided by US treaty obligations. The US has formally disclaimed the bargaining chip of regulatory recalcitrance – the strategy of refusing to address climate change domestically in the absence of an international agreement – by ratifying the UNFCCC.<sup>104</sup> Although the US did not ratify the specific implementation provisions of the Kyoto Protocol,<sup>105</sup> that failure did not undo the ratification of the UNFCCC; it merely indicated resistance to the specific implementation mechanisms created by Kyoto.

In ratifying the UNFCCC, the US committed itself to regulating GHGs. Two provisions of the UNFCCC applicable to the US are particularly relevant. The first is Article 3(3) of the Convention, in which the parties pledge to take 'precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects'. The second is Article 4(1)(b), whereby the parties agree to 'formulate, implement, publish and regularly update ... measures to mitigate climate change by addressing anthropogenic emissions by sources'. In particular, developed countries such as the US commit to adopting 'national policies and tak[ing] corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of [GHGs] and protecting and enhancing its [GHG] sinks and reservoirs'. The UNFCCC also contemplates international cooperation. Article 4(2)(a) provides that 'Parties may implement such policies and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention'.

The UNFCCC is obviously not self-executing, nor in any event does it directly authorize action by sub-national units. It does, however, represent a formal commitment by the US to mitigate GHG emissions. Given this commitment – not to mention the fact that the EPA is regulating GHGs under the CAA – it would seem at the least incongruous

<sup>103</sup> 552 U.S. 491 (2008).

<sup>104</sup> N. 6 above, and see [http://unfccc.int/essential\\_background/convention/status\\_of\\_ratification/items/2631.php](http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php).

<sup>105</sup> Kyoto Protocol to the UNFCCC, Kyoto (Japan), 11 Dec. 1997, in force 16 Feb. 2005, available at: [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php).

for the President to argue that he needs to prevent state mitigation efforts in order to preserve a bargaining chip. In legal terms, the US gave away that bargaining chip in ratifying the UNFCCC. Thus, state climate change measures, and efforts to link them with other jurisdictions, do not conflict with any statute, treaty, or executive order. On the contrary, they are consistent with the treaty commitment of the US to mitigate climate change.

Moreover, state initiatives regarding climate change need to be put into the context of a global movement in which nations are no longer the only transnational actors. Instead, as Judith Resnick observes, '[a]round the world, localities have moved outside their own nation-states and affect intergovernmental relations' as part of what she calls a 'rescaling of governance'.<sup>106</sup> For the state and local authority to operate in this sphere is not unlimited, but neither is it non-existent.

Linkage agreements between state and foreign governments may raise greater concerns over foreign affairs pre-emption. *Northeast Bancorp* provides an avenue for designing linkage without running into the constitutional strictures on agreements or treaties with foreign powers. The bargaining chip argument seems inapplicable, but the President might conceivably complain that a linkage agreement interferes with negotiations over other forms of climate cooperation between the US and the foreign government. *Garamendi* indicates that the President can protect himself from such interference, at least to the extent that active negotiations are under way or some agreement (even if not a binding one) has been reached. But the very fact that presidents do have this tool to protect themselves if specific problems arise should help to dissuade courts from anticipating future conflicts and invalidating state laws pre-emptively in advance of concrete problems.

#### 4.2. *Presidential Authority to Enter into International Agreements Relating to Leakage or Linkage*

Linkage with another nation's trading systems reduces costs, which is why it has been sought after by other countries.<sup>107</sup> Assuming that the US establishes such a system, either by statute or regulation, it would not be surprising for the President to seek linkage with other trading systems. Even in the absence of a US trading system, the President might well seek to coordinate other EPA regulations with Canada or other jurisdictions. Indeed, the US and Canada recently signed an agreement to amend the Great Lakes Water Quality Agreement to address climate impacts on the Lakes, among

<sup>106</sup> Resnick, n. 94 above, at p. 35.

<sup>107</sup> For instance, the EU and Australia recently agreed to link their trading systems: see M. Griffin & S. Gardner, 'EU, Australia to Link Carbon Schemes with First Phase Scheduled to Start in 2015', *International Environment Reporter*, 29 Aug. 2012, available at: [http://news.bna.com/ieln/IELNWB/split\\_display.adp?fedfid=27703916&vname=inernotallissues&wsn=506012000&csearchid=20764052&doctypeid=1&type=date&mode=doc&splint=0&scm=IELNWB&pg=](http://news.bna.com/ieln/IELNWB/split_display.adp?fedfid=27703916&vname=inernotallissues&wsn=506012000&csearchid=20764052&doctypeid=1&type=date&mode=doc&splint=0&scm=IELNWB&pg=).

other issues.<sup>108</sup> Presidential authority is not subject to ‘pre-emption’, but it does need a statutory or constitutional basis. Controversy surrounds the President’s constitutional power to enter into binding international agreements without Senate approval.<sup>109</sup>

Although Article II of the US Constitution speaks only of treaties made by the President with the advice and consent of the Senate,<sup>110</sup> executive agreements without Senate ratification are now ‘the primary instrument of international lawmaking in the United States’.<sup>111</sup> Although the extent to which executive agreements can replace treaties is unclear and deeply controversial, their use is widespread. Indeed, between 1980 and 2000 alone, there were more than 3,000 non-treaty agreements of all kinds,<sup>112</sup> of which 10 to 20% were sole agreements between the President and a foreign nation with no congressional sanction.<sup>113</sup> Some executive agreements deal with mundane matters, but others are quite consequential, such as an agreement with Iraq covering the withdrawal of American troops.<sup>114</sup>

The Supreme Court has upheld executive agreements and given them pre-emptive effect in four cases. The first two cases, *United States v. Belmont*<sup>115</sup> and *United States v. Pink*,<sup>116</sup> arose out of an executive agreement connected with the US government’s belated decision to recognize the Soviet government in 1933. The agreement included a settlement of claims by US citizens, and in both cases the Supreme Court held that the agreement was valid and superseded contrary state law. In a third case, *Dames & Moore v. Regan*,<sup>117</sup> the Court upheld an executive agreement designed to secure the release of American hostages, which relegated American creditors of Iran to an international tribunal and halted all US proceedings in respect of those claims. Finally, in the *Garamendi* case discussed earlier (at Section 4.1), the Court considered executive agreements dealing with claims against German insurance companies by victims of war crimes. The Court held that ‘the President has authority to make “executive agreements” with other countries, requiring no ratification by the Senate or approval by Congress’, and that those agreements ‘are fit to preempt state law, just as treaties are’.<sup>118</sup>

<sup>108</sup> A.H. Salyid, ‘US, Canada Sign Water Quality Agreement with Provisions on Climate, Invasive Species’, *BNA Daily Environment Report*, 10 Sept. 2012, available at: <http://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceac8525735900400c27/9e6415ec5260e5c885257a7200669766!OpenDocument>. The US and the EU are also seeking to coordinate regulations: see C. Bolen, ‘US, EU Seek Public Comment on How to Coordinate Regulations’, *International Environment Reporter*, 20 Sept. 2012, available at: [http://news.bna.com/ieln/IELNWB/split\\_display.adp?fedfid=27859244&vname=inernotallissues&wsn=505808000&searchid=20764084&doctypeid=1&type=date&mode=doc&split=0&scm=IELNWB&pg=0](http://news.bna.com/ieln/IELNWB/split_display.adp?fedfid=27859244&vname=inernotallissues&wsn=505808000&searchid=20764084&doctypeid=1&type=date&mode=doc&split=0&scm=IELNWB&pg=0).

<sup>109</sup> For criticisms of sole executive agreements, see H.H. Koh, *The National Security Constitution: Sharing Power after the Iran-Contra Affair* (Yale University Press, 1990), at pp. 139–40; O.A. Hathaway, ‘Presidential Power over International Law: Restoring the Balance’ (2009) 119 *Yale Law Journal*, pp. 140–269; B.R. Clark, ‘Domesticating Sole Executive Agreements’ (2007) 93 *Virginia Law Review*, pp. 1573–662.

<sup>110</sup> U.S. Constitution, Art. II, § 2, cl. 2.

<sup>111</sup> Hathaway, n. 109 above, at 150.

<sup>112</sup> *Ibid.*, at p. 150.

<sup>113</sup> *Ibid.*, at p. 155.

<sup>114</sup> *Ibid.*, at p. 143 n.4.

<sup>115</sup> 301 U.S. 324 (1937).

<sup>116</sup> 301 U.S. 203 (1942).

<sup>117</sup> 453 U.S. 654 (1981).

<sup>118</sup> 539 U.S. 396 (2003), at 415–6.

Thus, the President clearly has the power to enter into at least some kinds of international agreement that have the force of law without ratification by the Senate. The scope of this power, however, is less clear. There does seem to be consensus that the President may enter into binding agreements in areas where he exercises exclusive constitutional authority.<sup>119</sup> But, beyond this narrow area, there seems little agreement on the distinction between matters that may be achieved through executive agreement and those requiring a treaty.<sup>120</sup> In general, significant factors seem to be the length of the agreement and the importance of the subject matter, the impact on federal and state sovereignty, and the degree of power given to international entities or tribunals.<sup>121</sup> The State Department lists eight factors relevant to the use of a sole executive agreement, which include past US practice for similar agreements, timing considerations, national impact, effect on state laws, and congressional involvement in implementation.<sup>122</sup>

The extent to which the President could unilaterally enter into binding agreements relating to climate change is unclear. There are practical and political limitations on the President's ability to give domestic effect to an international agreement unless Congress provides funding and implementing legislation.<sup>123</sup> Thus, there are limits to what presidential action internationally could hope to accomplish without congressional support. On the other hand, more modest unilateral undertakings might well pass muster and could be incrementally beneficial.<sup>124</sup>

One such undertaking might be an effort at linkage along the lines of what states have done with the RGGL. Assuming that the EPA found statutory authority to implement some type of carbon trading system, could the President enter into agreements with other countries, such as the European Union (EU), regarding linkage? A threshold question would be whether the EPA's statutory authority to create a trading system, assuming it exists at all, precludes the EPA from giving regulatory credit to firms for offsets outside the US or allowances issued by other countries. Assuming that the statute did not prohibit linkage, it is hard to see any objection to coordination by the President with other countries to ensure the smooth operation of such a system. Such agreements would not expand the power of the federal government, nor would they further intrude on state prerogatives. Instead, they would simply facilitate the more effective exercise of discretion already possessed by the EPA.

The UNFCCC provides additional support for executive branch efforts at coordination. Article 2(a) encourages coordination between countries in terms of climate mitigation, stating that the developed countries 'may implement such policies

<sup>119</sup> See Clark, n. 109 above, at pp. 1581–2.

<sup>120</sup> *Ibid.*, at p. 1594.

<sup>121</sup> *Ibid.*, at pp. 1592–3.

<sup>122</sup> See O.A. Hathaway, 'Treaties' End: The Past, Present, and Future of International Lawmaking in the United States' (2008) 117 *Yale Law Journal*, pp. 1236–373, at 1250.

<sup>123</sup> Since this article is premised on congressional deadlock, it will not discuss the possible use of an executive-congressional agreement as an alternative to an international climate treaty. Current practice, however, would seem to make this an available option, to the unhappiness of some commentators. See *ibid.*, at pp. 1243–70.

<sup>124</sup> As we saw in the previous section, executive agreements may pre-empt state law. For this reason, executive agreements on climate change might pre-empt state laws in carbon-friendly states.

and measures jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention and, in particular, that of this subparagraph [on national mitigation efforts]'. More directly, Article 2(e) imposes a duty to coordinate at the administrative level. It provides that each developed country 'shall: (i) coordinate as appropriate with other such Parties, relevant economic and administrative instruments developed to achieve the objective of the Convention'. Given that the US has ratified the UNFCCC, these provisions taken together seem to bolster authority for the executive efforts to link EPA regulations and foreign mitigation efforts such as carbon trading systems.<sup>125</sup>

It is important to put the specific issue of institutional power into a broader context. As Jefferson Powell points out, '[t]he president's constitutional authority to act on the international stage on behalf of the United States is the ordinary or default state of institutional affairs'.<sup>126</sup> Executive efforts to cooperate with foreign jurisdictions are thus presumptively consistent with the overall structure, and arguments for invalidity are likely to fail except perhaps in extreme cases.

## 5. CONCLUSION

The normal route for national policy-making runs from Congress in setting policy, to the President in agency implementation, to judicial oversight and enforcement. When that route is blocked, however, federalism and the separation of powers provide some byways and detours that can still be used to make progress.<sup>127</sup> As we saw in Section 2, state governments and the executive branch have moved into the breach left by congressional deadlock. In the absence of federal climate legislation or a formal treaty, however, constitutional challenges will predictably meet efforts to limit carbon leakage or establish linkages between regulatory systems.

These constitutional issues often involve corners of constitutional law, such as foreign affairs, where doctrines are particularly murky. Solid arguments can be made in favour of state efforts to avoid leakage and create linkage, despite claims of discrimination against interstate commerce, extraterritoriality, and foreign affairs pre-emption. The EPA has some statutory authority to deal with leakage, and the President seems to have authority to pursue linkage through executive agreement. Thus, both states and the executive branch should have room to deal with transboundary implications of climate policies.

This article was prompted by concerns about congressional deadlock, but the legal case for state and executive initiatives is supported by congressional actions of an earlier era that still remain in effect – the CAA enacted by Congress and the UNFCCC ratified by the Senate. These past congressional achievements definitely resolve only a

<sup>125</sup> Note that the argument is not that the UNFCCC of its own force creates such linkages, merely that it provides support for executive agreements that link regulatory systems. If valid, those executive agreements would then in turn support regulatory action by the EPA.

<sup>126</sup> H.J. Powell, *The President's Authority over Foreign Affairs: An Essay in Constitutional Interpretation*, (Carolina Academic Press, 2002), at p. 147.

<sup>127</sup> For a compendium of these non-congressional options see Ewing & Kysar, n. 1 above, at p. 362 Table 1.



subset of the legal issues – primarily those stemming from the compact clause – but they articulate policies that provide support on other issues.

Although this article is optimistic about the leeway for effective state and executive action, it seems clear that there are limits to how much progress can be made without a new round of congressional action. Pending serious action by Congress, however, incremental efforts to mitigate climate change do exist in the US. Moreover, the American governance system does provide some tools for dealing with carbon leakage and for continuing international cooperation. Hopefully, actions by states and the executive branch will lay the foundation for eventual congressional action. In the meantime, they can at least reduce carbon emissions at the margin and signal the existence of support in the US for international action.

