

THE INTERNATIONAL AND DOMESTIC LAW OF CLIMATE CHANGE: A BINDING INTERNATIONAL AGREEMENT WITHOUT THE SENATE OR CONGRESS?

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The perception of the United States as a laggard or malingerer on climate change is widespread. The current reality, however, is largely underappreciated and considerably more nuanced, both in terms of the substance of U.S. domestic action and its engagement with international processes. Unusual if not unique attributes of the United States' domestic political, legal, and constitutional structure have come together on the climate issue in a revealing manner—one that thrusts into sharp relief the United States' difficulties in managing foreign affairs while maintaining the domestic rule of law on heavily regulatory issues such as the environment.

This Article asserts that neither Senate advice and consent nor new congressional legislation are necessarily conditions precedent to the United States becoming a party to an agreement containing binding emission-reduction (mitigation) commitments adopted at the 21st Conference of the Parties to the U.N. Framework Convention on Climate Change, to be held in Paris in December 2015. Depending on the form of such an agreement, which is presently under negotiation, portions of the President's Climate Action Plan could provide sufficient domestic legal authority for the conclusion of all or part of such a binding international instrument as an executive agreement, as well as for its domestic implementation, overcoming the legal necessity for interaction with Congress either before or after its conclusion.

In making this argument, the Article disaggregates U.S. international and domestic climate policy as it has developed to the present from a structural point of view. Among the subjects analyzed are (1) the extent of the Executive's powers in foreign relations on climate and related issues; (2) the strengths and limitations of existing federal legislation as domestic legal authority for an international agreement; (3) options available under existing legislation, both those that have already been put in place and those in the process of implementation; (4) the extent, if any, of the need for additional legislation, and the international and domestic implications of the absence of additional legislative authority; and (5) the role of the courts.

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INTRODUCTION

The multilateral climate negotiations are entering an overheated state in anticipation of a flash point in Paris at the end of 2015. In September 2014, the Secretary General of the United Nations organized a Climate Summit in New York, the most recent juncture in U.N.-sponsored talks as prelude to a meaningful global accord to save the planet's future. The event was predictably characterized by that amalgam of intrigue, fatigue, frisson, ennui, and déjà vu that has become typical of this prolonged effort of roughly a quarter century's duration. Meanwhile, as part of the preparations for the Paris conference, the United States has announced that it would not be prepared to accept legally binding emission-reduction (mitigation) commitments, but instead plans to make only a non-binding statement of political intent with respect to these crucial undertakings.¹

The United States' behavior in the climate negotiations can be at least partially understood as an artifact of difficulties in meshing domestic law and regulation with international legal obligations. A nuanced view of the interface between the international and domestic legal regimes can lead to a greater ap-

¹ See Todd D. Stern, Special Envoy for Climate Change, U.S. Dep't of State, Seizing the Opportunity for Progress on Climate (Oct. 14, 2014) [hereinafter Remarks of Todd Stern], <http://perma.cc/65TG-NXSV> (discussing legal form of Paris agreement); see also U.S. SUBMISSION—SEPTEMBER 2014 (2014), <http://perma.cc/NH7U-NX7H> (U.S. submission to U.N. climate negotiations before the 20th session of the Conference of the Parties to the U.N. Framework Convention on Climate Change in Lima, December 2014). See generally Neela Banerjee, *U.S. Sees Voluntary Emissions Cuts as Key to a Climate Change Accord*, L.A. TIMES (Dec. 1, 2014), <http://perma.cc/6UCL-RWSF>; Coral Davenport, *Obama Pursuing Climate Accord in Lieu of Treaty*, N.Y. TIMES (Aug. 27, 2014), <http://perma.cc/F4MW-A8JV>; Ben Geman, *Obama's Climate Diplomat Explains What a Paris Emissions Deal Should Look Like*, NAT'L J. (Oct. 14, 2014), <http://perma.cc/4VG6-47KA>; Elizabeth Shogren, *Ahead of UN Climate Summit, Global Treaty on Warming Looks Unlikely*, NAT'L GEOGRAPHIC (Sept. 21, 2014), <http://perma.cc/5WVC-EJ6K>.

preciation of the reasons for a posture in the multilateral negotiations that can seem considerably less than forthcoming. At the same time, the consequences of dramatic changes in the domestic legal landscape, especially in the form of the President's Climate Action Plan ("CAP")² and federal regulatory initiatives, within the five years following the ambivalent outcome of the Copenhagen meeting in 2009³ have radically altered the possibilities on the multilateral level in ways that have yet to be fully appreciated.

Accordingly, this Article proposes that, in light of those developments, neither Senate advice and consent nor new congressional legislation are necessarily conditions precedent to the United States becoming party to internationally binding mitigation commitments in the legal instrument anticipated to be adopted at the 21st Conference of the Parties ("COP") to the U.N. Framework Convention on Climate Change ("Convention," or "FCCC"), to be held in Paris in December 2015. Depending on the form of such an agreement, which is presently under negotiation, domestic federal regulations that are already in place or contemplated could provide sufficient domestic legal authority for the conclusion of all or part of such a binding international instrument as an executive agreement, as well as for its domestic implementation, overcoming the legal necessity for interaction with Congress either before or after its conclusion.

Part I of this Article summarizes the history of the U.N.-sponsored climate negotiations to date, with an emphasis on the U.S. position at critical junctures and the talks' current status. Documenting the progress of multilateral climate diplomacy is critical to understanding the current framing of key issues. But perhaps because of the U.S. posture toward the Kyoto Protocol ("the Protocol"), important details of the climate talks are frequently poorly understood. Part II traces the development of domestic regulatory initiatives since the seminal case of *Massachusetts v. EPA*.⁴ Regardless of the situation before those developments, these regulatory efforts, many already in place, can now plausibly provide the domestic legal underpinnings for binding international emission-reduction (mitigation) commitments. Part III examines the law governing executive agreements concluded without Senate advice and consent to ratification based on existing legal authority. That analysis demonstrates that the United States has entered into many binding environmental agreements, including a recently concluded multilateral convention on mercury, as executive agreements. Part III also evaluates the crucial role of the courts in articulating the scope of the President's power to enter into executive agreements. Last, the Article evaluates the possibilities for the United States to enter into binding mitigation commitments in Paris, based on current federal statutory authority and existing and proposed regulatory infrastructure.

² EXEC. OFFICE OF THE PRESIDENT, THE PRESIDENT'S CLIMATE ACTION PLAN (2013) [hereinafter CLIMATE ACTION PLAN], <http://perma.cc/2DTH-LL89>.

³ See *infra* Part I.C.

⁴ 549 U.S. 497 (2007).

I. THE INTERNATIONAL LEGAL ARCHITECTURE

A basic grasp of the legal infrastructure and developments within that framework is essential to understanding the current situation, both domestically and internationally. The multilateral climate regime negotiated under the auspices of the United Nations consists of an array of nested instruments. Negotiations are currently underway to reevaluate, revise, and extend the international legal architecture, a process that is scheduled to conclude in Paris at the end of this year.

A. *The Framework Convention*

When the issue of climate change began to attract heightened public attention in the late 1980s, the international community's first response was to convene a high-level scientific panel, the Intergovernmental Panel on Climate Change ("IPCC"). The IPCC, which met for the first time in November 1988, was created under the auspices of the United Nations Environment Program ("UNEP") and the World Meteorological Organization ("WMO") with a mandate to study the climate change issue primarily from a scientific perspective. Models for assembling advisory groups of prominent scientists from multiple countries under international auspices were familiar from previous multilateral activity on environmental challenges, such as stratospheric ozone depletion. The scale and structure of the IPCC, however, were unprecedented. The IPCC has now produced five assessment reports, the most recent of which is divided, like its predecessors, into three portions prepared by distinct working groups: (1) the physical science basis of climate change; (2) impacts, adaptation, and vulnerability; and (3) mitigation of climate change.⁵

⁵ See *Activities*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, <http://perma.cc/R6UK-NF74>. More than 830 coordinating lead authors, lead authors, and review editors from over eighty countries, along with over 1,000 contributing authors, were responsible for producing the Fifth Assessment Report in 2013 to 2014. See Press Release, Intergovernmental Panel on Climate Change, Concluding Instalment [sic] of the Fifth Assessment Report: Climate Change Threatens Irreversible and Dangerous Impacts, but Options Exist to Limit Its Effects (Nov. 2, 2014), <http://perma.cc/B6RJ-R76T>; see also INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, FIFTH ASSESSMENT REPORT (AR5) AUTHORS AND REVIEW EDITORS (2014), <https://perma.cc/W44J-T3CM>. All members of UNEP and WMO, in effect all U.N. member states, are eligible to participate in the IPCC's work. The IPCC's work product can be understood as a massive risk assessment undertaken by an international body of scientists from all over the world convened to advise the international community as to the nature and extent of threats from global climate warming. The IPCC's first and second assessment reports, released in 1990 and 1995, respectively, provided much of the scientific basis for the Framework Convention on Climate Change and the Kyoto Protocol. See Daniel Bodansky, *The United Nations Framework Convention on Climate Change: A Commentary*, 18 YALE J. INT'L L. 451, 458-60 (1993). The IPCC's work has withstood outside scientific scrutiny, for example by the U.S. National Academy of Sciences in 2001 after the United States had indicated its intention not to ratify the Kyoto Protocol. See generally COMM. ON THE SCI. OF CLIMATE CHANGE, NAT'L RESEARCH COUNCIL, CLIMATE CHANGE SCIENCE: AN ANALYSIS OF SOME KEY QUESTIONS (2001). The IPCC was awarded the Nobel Peace Prize in 2007. *The Nobel Peace Prize 2007*, NOBELPRIZE.ORG, <http://perma.cc/J6ES-S64K>.

The centerpiece of the international climate regime is the U.N. Framework Convention on Climate Change,⁶ opened for signature at the United Nations Conference on Environment and Development (“UNCED”) in Rio de Janeiro in 1992.⁷ The Convention, which the United States has signed and ratified and to which it is consequently a party, is a largely procedurally oriented instrument, containing obligations for reporting and information sharing and articulating certain broad substantive principles, but with few if any binding commitments to reduce greenhouse gas (“GHG”) emissions. The word “framework” in the title is a term of art, referring to an international regime established by a freestanding “umbrella” multilateral convention to which are appended substantive protocols.⁸

Consistent with the basic model, the FCCC includes a number of components: (1) procedural requirements for data exchange and reporting;⁹ (2) a provision for adoption of ancillary protocols,¹⁰ along with rules for adoption and amendment of both the Convention itself and any protocols;¹¹ (3) a periodic, typically annual, conference of the parties to the Convention and meetings of the parties of any protocols to it;¹² and (4) requirements for periodic review of developments in science, policy, and procedural issues, typically addressed at the conference of the parties.¹³ Outputs from the conference of the parties range from decisions—generally accepted to be legally non-binding in character—to amendments, declarations, and a variety of other procedural formats.¹⁴

The FCCC also contains two additional attributes, in part reflecting the state of development of both the law and climate change policy at the time the agreement was adopted. First, Article 3, entitled “Principles,” articulates a number of meta-level precepts which, while general in character,¹⁵ are nonetheless binding as a matter of international law by virtue of their inclusion in a multilateral treaty.¹⁶ These include such familiar concepts in international environmental law as intergenerational equity, common but differentiated responsibilities, precaution, and sustainable development.¹⁷

⁶ United Nations Framework Convention on Climate Change, *opened for signature* June 4, 1992, S. Treaty Doc. No. 102-38, 1771 U.N.T.S. 164 [hereinafter FCCC].

⁷ *Id.* art. 21.

⁸ See David A. Wirth & Daniel A. Lashof, *Beyond Vienna and Montreal: A Global Framework Convention on Greenhouse Gases*, 2 *TRANSNAT'L L. & CONTEMP. PROBS.* 79, 82–83, 97 (1992); David A. Wirth, *Environment*, in *THE OXFORD HANDBOOK OF INTERNATIONAL ORGANIZATIONS* (forthcoming 2015). See generally Robin R. Churchill & Geir Ulfstein, *Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-Noticed Phenomenon in International Law*, 94 *AM. J. INT'L L.* 623 (2000). For a history of the negotiation of the Convention, see generally Bodansky, *supra* note 5.

⁹ FCCC, *supra* note 6, art. 5.

¹⁰ *Id.* art. 17.

¹¹ *Id.* arts. 15, 22.

¹² *Id.* art. 7.

¹³ *Id.* art. 4, para. 1.

¹⁴ See generally Churchill & Ulfstein, *supra* note 8.

¹⁵ FCCC, *supra* note 6, art. 3.

¹⁶ See Bodansky, *supra* note 5, at 501–05 (discussing Article 3 of the Convention, “Principles”).

¹⁷ FCCC, *supra* note 6, art. 3.

Second, the agreement articulates the goal of stabilizing GHG concentrations “at a level that would prevent dangerous anthropogenic interference with the climate system.”¹⁸ It states that “[s]uch a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.”¹⁹

The Convention is broadly applicable to all parties, but makes clearly defined distinctions with respect to certain states, identified by name in Annex I to the Convention.²⁰ In particular, the treaty commits developed country parties identified in the Convention’s Annex I to “communicate . . . detailed information on their policies and measures . . . with the aim of returning individually or jointly to their 1990 levels . . . anthropogenic emissions of carbon dioxide and other greenhouse gases”²¹

This language was subject to much controversy and debate for its implicit acknowledgement of a substantive need to control emissions in what was otherwise a procedurally oriented instrument. The Convention also enshrined a distinction that bedevils the multilateral regime to this day: a distinction between an enumerated list of developed countries that have substantive obligations for

¹⁸ *Id.* art. 2.

¹⁹ *Id.*

²⁰ *Id.* art. 4, para. 2. The parties to the FCCC identified in Annex I to the Convention are the following: Australia, Austria, Belarus†, Belgium, Bulgaria†, Canada, Croatia*†, Cyprus*, Czech Republic*†, Denmark, European Economic Community, Estonia†, Finland, France, Germany, Greece, Hungary†, Iceland, Ireland, Italy, Japan, Latvia†, Liechtenstein*, Lithuania†, Luxembourg, Malta*, Monaco*, Netherlands, New Zealand, Norway, Poland†, Portugal, Romania†, Russian Federation†, Slovakia*†, Slovenia*†, Spain, Sweden, Switzerland, Turkey, Ukraine†, United Kingdom of Great Britain and Northern Ireland, and United States of America. Countries added by amendment after the instrument’s initial adoption are indicated by *. Countries in the process of undergoing a transition to a market economy and identified as such in Annex I are indicated by †. *List of Annex I Parties to the Convention*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, <http://perma.cc/TLH7-YZAS>.

²¹ FCCC, *supra* note 6, art. 4, para. 2(b); *see also id.* art. 4, para. 2(a) (“[D]eveloped countries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention, recognizing [the need for] the return by the end of the present decade [i.e., by the year 2000] to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases”); *id.* art. 12, para. 2 (reporting requirements consistent with Article 4, paragraphs 2(a)–(b)). This obligation was discharged, if at all, by the turn of the century, and in any event is now understood to fall far short of the needed policy actions. *See generally* INTER-GOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS (2013), <http://perma.cc/F5LM-6249> (fifth assessment report).

The second principal distinction among states made by the Convention concerns those Annex I states other than those identified as undergoing the transition to a market economy (basically the Russian Federation and the former Warsaw Pact states of Central and Eastern Europe), to provide financial resources to developing country parties for mitigation, adaptation, and technology transfer, FCCC, *supra* note 6, art. 4, paras. 3–5, and to report those measures to the Secretariat, *id.* art. 12, para. 3. The need for this kind of differentiation related to funding between developed country donor states and developing country recipient states is not in serious dispute, and, indeed, has been the basis for the elaboration of operative provisions of the Convention. *See* David A. Wirth, Presentation at President’s Day Renaissance Weekend, Laguna Niguel, California, Greenhouse Implications of Energy Policies of International Financial Institutions (Feb. 15, 2014) (on file with the Harvard Law School Library).

emission control and reduction—“mitigation”—and those developing countries that do not.²²

President George H.W. Bush signed the Convention on behalf of the United States at the earliest opportunity, during the UNCED meeting in June 1992. The Senate gave its advice and consent to ratification in October of that year, and the President ratified the agreement that same month. The United States was consequently among the original parties to the agreement when it entered into force in March 1994.

B. *The Kyoto Protocol*

The first, and to date only, protocol to the Convention is the Kyoto Protocol²³ adopted in 1997, which specifies quantitative emission reductions in gases that contribute to climate change, notably carbon dioxide (“CO₂”), by thirty-three enumerated industrialized countries and economies in transition identified in Annex I to the Convention, transposed into Annex B of the Protocol.²⁴ Early on in the negotiations, it was agreed that there would be no new emission-reduction commitments for non-Annex I Parties to the Convention. The Protocol controls emissions of six GHGs, notably CO₂, methane, and nitrous oxide, weighted according to their relative contributions to climate disruption as measured by “carbon equivalents” based on global warming potentials established by the IPCC.

The overall goal of the Protocol is to lower global releases of these gases by those states with quantified emission-limitation or -reduction (“mitigation”) commitments by about 5% by reference to 1990 levels.²⁵ The multilaterally agreed regulatory vehicle for accomplishing this initial reduction goal was a first commitment period commencing in 2008 and ending in 2012.²⁶ The Protocol anticipates additional reductions in subsequent commitment periods. The

²² The justification for this bifurcation of states into those with quantified emission reductions, identified in Annex I of the Convention and Annex B of the Protocol, was at least partially the principle of common but differentiated responsibilities, expressly referenced in Article 3(1) of the Convention (principles) and alluded to in Article 3(2) (special situation and needs of developing countries). Cf. United Nations Conference on Environment and Development, Rio de Janeiro, Braz., June 3–14, 1992, *Rio Declaration on Environment and Development*, princ. 7, U.N. Doc. A/CONF.151/26 (Vol. 1), Annex I (Aug. 12, 1992) (principle of common but differentiated responsibilities); *id.* princ. 6 (special situation and needs of developing countries). This structure was by no means preordained, and in fact gave rise to serious criticism even before the Protocol was adopted. See S. Res. 98, 105th Cong. (1997) (Byrd-Hagel resolution). By contrast, Article 5 of the Montreal Protocol on Substances That Deplete the Ozone Layer, Sept. 16, 1987, 1522 U.N.T.S. 3, under the implicit rubric of “common but differentiated responsibilities,” creates emission-reduction obligations for all states, but delays implementation of those obligations for low-emitting developing countries.

²³ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 2303 U.N.T.S. 162 [hereinafter Kyoto Protocol].

²⁴ See *supra* notes 20–22 (describing bifurcation of states parties to the Convention by reference to inclusion in Annex I).

²⁵ Kyoto Protocol, *supra* note 23, art. 3, para. 1.

²⁶ *Id.*

reduction goals accepted by Annex I Parties to the Convention are set out on a state-by-state basis in an annex to the Protocol.²⁷

Among the novel features of the Kyoto Protocol is its “cap-and-trade” architecture. The principal vehicles for implementing this regulatory design are the Protocol’s “flexible mechanisms,” designed to reduce the cost of implementation by expanding the range of options available to states in fulfilling their obligations under the agreement. The Protocol specifies that rights to emit may be traded among parties to the Protocol with quantified emission-reduction obligations.²⁸ Second, the Protocol permits Annex I Parties to undertake cooperative projects that reduce emissions of GHGs in other Annex I countries and to obtain credit for those reductions, an option known as “joint implementation.”²⁹ The resulting “emissions reduction units” are also tradable. Third, the Protocol establishes a “Clean Development Mechanism” (“CDM”), which provides a basis for those countries with emission-reduction obligations to implement those commitments by undertaking projects in developing countries.³⁰ “Certified emissions reductions units” generated by such projects may also be traded.

In 2001, the infrastructure for implementation of the Protocol was completed with the adoption of the Marrakesh Accords, a set of rules governing important aspects of the operation of the agreement such as accounting for GHG emissions and reductions. The Accords, a group of decisions of the meeting of the parties to the Protocol, also adopted a compliance mechanism.³¹

The Clinton Administration negotiated the Kyoto Protocol for the United States, and the agreement owes much of its content, including the concept behind the flexible mechanisms, to U.S. governmental input. But even before the Protocol’s adoption, the Senate had expressed its objection to the agreement in a resolution sponsored by Senators Byrd and Hagel and adopted by a vote of 95–0.³² The Clinton Administration consequently had relatively little expecta-

²⁷ See generally MICHAEL GRUBB, CHRISTIAAN VROLIJK & DUNCAN BRACK, *THE KYOTO PROTOCOL: A GUIDE AND ASSESSMENT* (1999); SEBASTIAN OBERTHÜR & HERMANN E. OTT, *THE KYOTO PROTOCOL: INTERNATIONAL CLIMATE POLICY FOR THE 21ST CENTURY* (1999). For a negotiating history of the Protocol, see generally U.N. Framework Convention on Climate Change, *Tracing the Origins of the Kyoto Protocol: An Article-by-Article Textual History*, U.N. Doc. FCCC/TP/2000/2 (Nov. 25, 2000) (prepared under contract by Joanna Depledge).

²⁸ See Kyoto Protocol, *supra* note 23, art. 17.

²⁹ *Id.* art. 6.

³⁰ *Id.* art. 12.

³¹ Rep. of the Conference of the Parties on Its Seventh Session, Decisions 1/CP.7 to 14/CP.7, U.N. Doc. FCCC/CP/2001/13/Add.1 (Jan. 21, 2002) [hereinafter Marrakesh Rules]. See generally David A. Wirth, *The Sixth Session, Part Two, and Seventh Session of the Conference of the Parties to the Framework Convention on Climate Change*, 96 AM. J. INT’L L. 648 (2002) (analysis of Marrakesh Rules).

³² S. Res. 98, 105th Cong. (1997). See also 143 CONG. REC. 15,808 (1997) (specifying that “the United States should not be a signatory to any protocol to, or other agreement regarding, the United Nations Framework Convention on Climate Change of 1992, at negotiations in Kyoto in December 1997, or thereafter, which would . . . mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties [to the Convention, consisting of industrialized states], unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period”).

tion of obtaining Senate advice and consent to ratification of the Protocol by the two-thirds majority required by Article II, Section 2 of the Constitution. Vice President Gore nonetheless signed the Kyoto Protocol in November 1998, toward the end of the Clinton presidency, presumably on the expectation that the Senate's composition would shift in the future in a direction more receptive to the agreement.

In late March 2001, the prospects for the Kyoto Protocol darkened considerably when President George W. Bush announced that the United States would not ratify the Kyoto Protocol.³³ That action affected not only the international legal obligations of the United States,³⁴ but also endangered the prospects of the Protocol's taking effect for any state. One of the conditions precedent for the Protocol's entry into force was ratification by states representing 55% of 1990 global emissions of carbon dioxide.³⁵ Of that amount, the United States represented about 35%, meaning that a shortfall in ratifications from states representing only 10% of total Annex I emissions would preclude the Protocol's entry into force. After much uncertainty, the Protocol entered into force in February 2005, following the Russian Federation's ratification.

C. *After the Protocol's First Commitment Period*

Unsurprisingly, subsequent negotiations on mitigation (emission-reduction) commitments focused on next steps after the expiration of the Kyoto Protocol's first commitment period in 2012. The endpoint of that process was anticipated to be COP 15 held in Copenhagen, Denmark. In the event, that meeting turned out to be at best inconclusive, and in retrospect is probably best understood as an intermediate juncture on the way to the Paris meeting at the end of this year.

The concurrent thirteenth meeting of the parties to the FCCC and the third meeting of the parties to the Kyoto Protocol (COP 13/CMP 3) in Indonesia adopted the Bali Action Plan,³⁶ or "Bali Roadmap," intended to launch intensive multilateral consultations scheduled to conclude with a comprehensive agreement at COP 15 in Copenhagen at the end of 2009. The negotiations were divided into two tracks. The first, under the Kyoto Protocol, focused on the adoption of new binding mitigation (emission-reduction) commitments by de-

³³ See Letter to Members of the Senate on the Kyoto Protocol on Climate Change, 37 WEEKLY COMP. PRES. DOC. 444-45 (Mar. 13, 2001) [hereinafter Bush Letter].

³⁴ Signature of a multilateral treaty ordinarily indicates a preliminary intent to be bound, subject to confirmation by subsequent domestic ratification. Vienna Convention on the Law of Treaties art. 14, May 23, 1969, 1155 U.N.T.S. 331, 335-36 [hereinafter Vienna Convention on the Law of Treaties]. Although signature absent ratification does not bind a state to full performance of the obligations in a treaty, a signatory state is obliged to refrain from defeating the objects and purposes of the treaty until it has expressed its intention not to ratify. *Id.* art. 18. The Vienna Convention is ordinarily considered a codification of customary international law concerning treaties and is considered authoritative, if not binding, in the United States. See RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW, introductory n. (1987) [hereinafter RESTATEMENT].

³⁵ Kyoto Protocol, *supra* note 23, art. 25, para. 1.

³⁶ Bali Action Plan, Dec. 1/CP.13, U.N. Doc. FCCC/CP/2007/6/Add.1, at 3 (Mar. 14, 2008).

veloped (Annex I) countries that are party to that instrument, known as the Ad Hoc Working Group on Further Commitments for Annex I Parties Under the Kyoto Protocol. A parallel process under the Framework Convention, which involved all parties to the Convention, including the United States, was known as the Ad Hoc Working Group on Long-Term Cooperative Action Under the Convention.

After the election of President Obama, the United States vowed to reengage with the U.N.-sponsored multilateral process. President Obama appointed Todd Stern special envoy on climate change, reporting to then-Secretary of State Hillary Rodham Clinton.³⁷ As of this writing, he still serves in that position. Despite the high expectations and general atmosphere of goodwill, the United States went into the Copenhagen meeting in an arguably weak position. The legal authority in the U.S. Clean Air Act, if any, for a comprehensive, nationwide cap-and-trade scheme of the sort anticipated by the Kyoto Protocol is less than clear.³⁸

The new Obama Administration Environmental Protection Agency (“EPA”) nonetheless signaled its intention of utilizing existing statutory authority by also initiating the process of moving forward on motor vehicle emission standards called for by *Massachusetts v. EPA*.³⁹ The U.S. House of Representatives passed a bill cosponsored by Congressmen Waxman and Markey, H.R. 2454, establishing a Kyoto-style nationwide cap-and-trade scheme in June 2009.⁴⁰ But at the time of the Copenhagen meeting in December 2009 (and as of this writing), no analogous bill had passed the Senate. The Waxman-Markey bill established a goal of a 17% reduction in GHG emissions by 2020 and 83% by 2050,⁴¹ but with a reference year of 2005 arguably incommensurate with the Convention/Protocol scheme, which employs a 1990 baseline. Additionally, a proliferation of state and local initiatives had already been undertaken.

Despite all this, the U.S. proposal going into Copenhagen failed to identify quantified mitigation (emission-reduction) goals.⁴² The U.S. submission uses the curious (from the perspective of the Convention and the Protocol) term “implementing agreement,” impliedly suggesting that the outcome might be adopted as an executive agreement not requiring Senate advice and consent to ratification.⁴³

³⁷ *Office of the Special Envoy for Climate Change*, U.S. DEP’T ST., <http://perma.cc/2AA5-U94R>.

³⁸ For a similar reason, the statute was amended in 1990 to combat acid precipitation by establishing a nationwide sulfur trading scheme in Title IV of the Clean Air Act Amendments of 1990, Pub. L. No. 101-549, §§ 401–413, 104 Stat. 2399, 2584–634 (codified at 42 U.S.C. §§ 7651–7651o (2012)), which in turn served as a model for the Kyoto Protocol.

³⁹ See *infra* Part II.A.

⁴⁰ See *infra* Part II.B.

⁴¹ See American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009); see also *infra* text accompanying notes 116–24.

⁴² See U.S. SUBMISSION ON COPENHAGEN AGREED OUTCOME (2009), <http://perma.cc/3PP5-RHAP>.

⁴³ As defined by the Convention and Protocol, the textual options are an amendment to the Convention, an amendment to the Kyoto Protocol, an additional commitment period identified in the Kyoto Protocol, a new protocol, and a decision of either the Conference of the Parties to the Convention or of the Meeting of the Parties to the Protocol. An “implementing agreement” is not

The principal issues in the multilateral negotiations culminating in the Copenhagen summit included mitigation actions (emission reductions) for Annex I (developed) countries. Reductions on the order of 50% in CO₂ equivalents from 1990 levels by 2050 received serious discussion. Interim targets, such as for 2020, were more problematic because of the near-term impacts, both political and economic.

Mitigation actions for non-Annex I (developing) countries were important because of the increasing contributions of those countries to the problem. China has now surpassed the United States as the single largest national emitter of GHGs,⁴⁴ and there is widespread recognition that without the participation of developing countries, multilateral efforts to protect the climate will likely not be effective. Unlike the discussions of quantifiable emission reductions for Annex I countries, the discussion for developing countries focused on “nationally appropriate mitigation actions” (“NAMAs”), together with funding for achieving those goals.⁴⁵

Despite initial gridlock at the meeting, something of a breakthrough was achieved when twenty to twenty-five heads of state, who very rarely engage personally in face-to-face wordsmithing at a multilateral meeting, privately negotiated what is now known as the Copenhagen Accord. According to news reports,⁴⁶ the deal was clinched by a meeting between U.S. President Obama and the heads of state of the four BASIC countries: Brazil, South Africa, India, and China. The resulting Copenhagen Accord,⁴⁷ strictly speaking, is not part of the formal U.N. process. Some states objected to the “undemocratic” process that had produced it. The FCCC’s rules of procedure require the adoption of decisions, non-binding though they are, by consensus, meaning the absence of objection, but in effect unanimity. Continued objections by a few states such as

among these options. Although there appears to be no publicly available reason for this choice of terminology, the term “implementing agreement” might be taken to have domestic legal significance, as implying a subsidiary instrument whose legal authority might derive from the instrument to which it is subordinate. This might, in turn, justify its treatment as an executive agreement whose legal authority is provided by the Convention, an Article II, Section 2 treaty. *See infra* text accompanying note 172. The choice of the term might also be a response to the Senate Foreign Relations Committee’s observations with respect to the domestic treatment of protocols to the Convention. *See infra* note 278.

⁴⁴ John Vidal & David Adam, *China Overtakes US as World’s Biggest CO₂ Emitter*, THE GUARDIAN (June 19, 2007), <http://perma.cc/VD55-BMNY>.

⁴⁵ An additional part of the overall package from Copenhagen was expected to include a fund or funds to assist developing countries cope with the adaptation required to adjust to the impacts of climate change, as well as to promote technology transfer. Another priority with respect to developing countries was addressing emissions from changes in land use (for example, deforestation) and sequestering carbon in biomass (carbon sinks), known as “REDD,” as well as conserving existing forests (which, with the conservation component, is known as “REDD+”).

⁴⁶ *See, e.g.*, John Vidal et al., *Low Targets, Goals Dropped: Copenhagen Ends in Failure*, THE GUARDIAN (Dec. 18, 2009), <http://perma.cc/K3RM-JQ5R>.

⁴⁷ Copenhagen Accord, Dec. 2/CP.15, U.N. Doc. FCCC/CP/2009/11/Add.1, at 4 (Dec. 18, 2009) [hereinafter Copenhagen Accord, Dec. 2/CP.15]. *See generally* Dominic McGoldrick et al., *The Making and Unmaking of the Copenhagen Accord*, 59 INT’L & COMP. L.Q. 824 (2010). Unlike the terms “amendment,” “protocol,” and “decision,” “accord” has no technical or legal meaning within the FCCC lexicon. The Marrakesh Accords as a matter of form are decisions of the Meeting of the Parties to the Kyoto Protocol. *See supra* text accompanying note 31.

Venezuela, Sudan, Bolivia, and Nicaragua meant that the COP was able merely to “take[] note” of the Copenhagen Accord.⁴⁸

Despite defects in its legal status,⁴⁹ its unruly drafting history,⁵⁰ and opaque language, the Copenhagen Accord collects all the strands in the negotiation in a single instrument, in effect a snapshot reflecting the status of most of the issues to that point. Although there is much rhetoric about the importance of addressing climate change, in operative terms the salient points are few and vague.

Specifically with respect to mitigation, the Accord articulates a goal of limiting the increase in global average temperature to two degrees Celsius,⁵¹ with the possibility of more aggressive action to limit warming to no more than 1.5 degrees Celsius after a review of the Accord’s efficacy.⁵² The Copenhagen Accord is vague as to targets for both the level of emission cuts and the dates for achieving them.⁵³ In contrast to the Kyoto Protocol, which specifies numerical economy-wide emission reductions, the Copenhagen Accord does not identify any global numerical targets, nor does it allude to either a second commitment period, a new agreement, or any successor instrument, either binding or non-binding.⁵⁴

The Copenhagen Accord invites non-Annex I Parties to the Convention to implement NAMAs, even though these parties do not have quantified emission-reduction obligations under the Protocol.⁵⁵ Unlike subsequent submissions expected of Annex I states, NAMAs were not anticipated to be, and have not been, framed in terms of quantified reduction targets. Rather, NAMAs have tended to be phrased in sector-specific terms—as in reduction in deforestation or implementation of best practices in manufacturing (Brazil), as a reduction in energy intensity per unit GDP (China, India), or as curtailing emissions that otherwise would have taken place in a business-as-usual scenario without promising actual reductions (South Africa, Mexico).⁵⁶

⁴⁸ According to one legal analysis, “[T]he Accord is ‘politically binding’ on those countries that choose to sign up to it. . . . ‘Taking note’ of the Accord is a way for UNFCCC parties to formally acknowledge its existence. . . . However, the decision to ‘take note’ of the Copenhagen Accord does not change the nature of the Agreement; it does not, for example, give it the significance of a COP decision.” Jacob Werksman, “*Taking Note*” of the Copenhagen Accord: *What It Means*, WORLD RES. INST. (Dec. 20, 2009), <http://perma.cc/5JEP-KT84>.

⁴⁹ *See id.*

⁵⁰ One analysis at the time was quite critical of the Accord precisely because it was drafted by heads of state: “The world simply cannot afford another leader drafting exercise.” BENITO MÜLLER, OXFORD INST. FOR ENERGY STUDIES, COPENHAGEN 2009: FAILURE OR FINAL WAKE-UP CALL FOR OUR LEADERS?, at ii (2010), <http://perma.cc/MM2X-MV8B>. The analysis further stated that the poor drafting “should serve as warning against the drafting of Decisions under sleep deprivation, whatever the level of seniority.” *Id.* at 6 n.10.

⁵¹ Copenhagen Accord, Dec. 2/CP.15, *supra* note 47, para. 1.

⁵² *Id.* para. 12.

⁵³ *See id.* para. 1.

⁵⁴ *See id.* para. 4.

⁵⁵ *See id.* para. 5.

⁵⁶ *See Appendix II—Nationally Appropriate Mitigation Actions of Developing Country Parties*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, <http://perma.cc/3GUF-5U3F>. The Accord also addresses, inter alia, the important question of adaptation, the issue of funding—advocating the creation of a Green Climate Fund—the importance of reporting for both Annex I

COP 15 and its principal output, the Copenhagen Accord, snatched out of a chaotic soup, may have muddied the legal and policy situation more than they clarified it. The uncertain, indeterminate legal form of the Accord and its nearly incoherent text mirror the turbulent setting that gave rise to it. The Accord addresses both mitigation and adaptation by developing countries, which in the FCCC context are understood to be distinct from one another.⁵⁷ Similarly, the two-track process, one expressly confined to the Protocol and the other under the Convention, appears to have been conflated into a single product, without clear distinctions between the two undertakings. The Accord's legal status does not even rise to that of a decision, itself understood to be formally non-binding. Instead, the Accord exists in a legal limbo, at least formally disconnected from the FCCC process. Perhaps most importantly, the Accord is critically lacking in the sort of precision with respect to mitigation obligations required to retard, reduce, and reverse the worst effects of anthropogenically-induced climate warming.

Consequently, the text of the Copenhagen Accord was largely a disappointment, because it failed to articulate meaningful, consensus-based global goals going forward. By comparison with the structure of the Kyoto Protocol, the Accord, indeed, amounts to backtracking in terms of precision and ambition. But, if nothing else, the Copenhagen Accord served as a vehicle for both Annex I and non-Annex I states voluntarily to identify their intentions with respect to mitigation in a pledge-and-review mode.

In its submission to Annex I of the Copenhagen Accord,⁵⁸ in which states with economy-wide mitigation (emission-reduction) obligations in the Kyoto Protocol identified subsequent goals in a non-binding mode, the United States pledged, using a base year of 2005, emission reductions for the year 2020 “[i]n the range of 17%, in conformity with anticipated U.S. energy and climate legislation, recognizing that the final target will be reported to the Secretariat in light of enacted legislation.”⁵⁹ In a footnote, the United States clarified that “[t]he pathway set forth in pending legislation would entail a 30% reduction in 2025 and a 42% reduction in 2030, in line with the goal to reduce emissions by 83% by 2050.”⁶⁰

and non-Annex I states, and the need to address deforestation, forest degradation, enhancement of forest cover, and conservation.

⁵⁷ “Mitigation” is a term of art that implies emission-reduction obligations, while “adaptation” involves policy action, including in the case of providing countries international financial support, in response to the consequences of climate change.

⁵⁸ Letter from Todd Stern, U.S. Special Envoy for Climate Change, to Yvo de Boer, Exec. Sec’y, U.N. Framework Convention on Climate Change 2 (Jan. 28, 2010) [hereinafter U.S. Copenhagen Submission], <http://perma.cc/5FBR-TGR9>.

⁵⁹ *Id.* The legislation referred to is the then-pending Waxman-Markey bill. See *infra* Part II.B; see also Sophie Yeo, *US Denies Backtracking on Climate Change Goals: US Climate Envoy Said That More Ambitious Copenhagen Pledge Had Been Contingent upon Failed Legislation*, RTCC (Dec. 9, 2014), <http://perma.cc/K59G-3CFX>.

⁶⁰ U.S. Copenhagen Submission, *supra* note 58, at 2. Cf. *infra* Part II.B (discussing U.S. legislation on climate change).

D. From Durban to Paris

The 2009 Copenhagen meeting was at best inconclusive. Although it fell well short of producing the hoped-for major breakthrough in the form of a new, comprehensive agreement, it did serve as an occasion for forty-six non-Annex I states⁶¹ to offer mitigation commitments for the first time in the form of non-binding NAMAs, and for Annex I states to identify their future mitigation goals, also—and in contrast to the Kyoto Protocol—in a non-binding format.

Since then, multilateral efforts have regrouped around a new goal of Paris in 2015, this time in a more structured manner with clearer objectives agreed to in an incremental fashion along the way. After the disappointing Copenhagen outputs, the FCCC negotiations were somewhat reinvigorated at COP 17/CMP 7 held in Durban, South Africa at the end of 2011. There, the parties to both the Convention and the Protocol embarked on a stopgap effort to address the then-looming end of the first commitment period under Kyoto, as well as further collective action thereafter.

The Durban meeting took a non-binding decision⁶² proposing an amendment to extend the Kyoto Protocol for a second commitment period, beginning on January 1, 2013, the day after the expiration of the first commitment period, through the end of 2017 or 2020. Consistent with the requirements of the Convention⁶³ and Protocol,⁶⁴ the Amendment was formally adopted the next year in Doha, Qatar,⁶⁵ clarifying that the second commitment period extends until

⁶¹ See *Appendix II—Nationally Appropriate Mitigation Actions of Developing Country Parties*, *supra* note 56 (listing nationally appropriate mitigation actions of developing countries).

⁶² Outcome of the Work of the Ad Hoc Working Group on Further Commitments for Annex I Parties Under the Kyoto Protocol at Its Sixteenth Session, Decision 1/CMP.7, U.N. Doc FCCC/KP/CMP/2011/10/Add.1, at 2 (Mar. 15, 2012) [hereinafter AWP-KP Outcome Decision]. Many of the Annex I Kyoto Parties had already made non-binding mitigation commitments under the Copenhagen Accord. See *Appendix I—Quantified Economy-wide Emissions Targets for 2020*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, <http://perma.cc/A5YQ-BBUY>. In multilateral environmental regimes, non-binding statements of political will not infrequently precede legally binding agreements. See, e.g., David A. Wirth, *Hazardous Substances and Activities*, in *THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW* 394, 397–98 (Daniel Bodansky et al. eds., 2007). Indeed, the sequence of a statement of political will to a second commitment period under the Kyoto Protocol in Durban in 2011—itsself preceded by the non-binding Copenhagen Accord in 2009—was followed by the binding Amendment the following year in Doha. Compare AWP-KP Outcome Decision, *supra* (proposing Doha Amendment), with Amendment to the Kyoto Protocol Pursuant to Its Article 3, Paragraph 9 (the Doha Amendment), Dec. 1/CMP.8, U.N. Doc. FCCC/KP/CMP/2012/13/Add.1, at 2 (Feb. 28, 2013) [hereinafter Doha Amendment, Dec. 1/CMP.8] (adopting Doha Amendment). This process is also encouraged by the text of the Protocol, which requires six months advance notice of an amendment to the Protocol before adoption. Kyoto Protocol, *supra* note 23, art. 20, para. 2.

⁶³ FCCC, *supra* note 6, art. 17.

⁶⁴ Kyoto Protocol, *supra* note 23, arts. 20–21.

⁶⁵ Doha Amendment, Dec. 1/CMP.8, *supra* note 62. The decision adopting the Amendment encourages Protocol Parties provisionally to apply the Amendment pending its entry into force. *Id.* para. 5. Under customary international law, as well as both the Framework Convention and the Vienna Convention on the Law of Treaties, an amendment to a multilateral treaty is a new agreement which binds only those states that have agreed to be bound by its terms, as indicated in the case of the Doha Amendment by formal instruments of acceptance. FCCC, *supra* note 6, art. 15; Kyoto Protocol, *supra* note 23, art. 20; Vienna Convention on the Law of Treaties, *supra* note 34,

2020. A total of 144 instruments of acceptance are required for the entry into force of the Amendment.

In less auspicious developments, Canada formally withdrew from the Kyoto Protocol on the day after the end of COP 17, after widespread acknowledgment that it would not achieve its Kyoto target of a 6% reduction in GHG emissions by reference to the base year of 1990.⁶⁶ Among other things, this action might reduce the likelihood of sanctions against Canada by the Compliance Committee established by the Marrakesh Rules.⁶⁷ Informal reports suggested that Canadian emissions increased during that period by 35% or more. Moreover, Japan and the Russian Federation stated that they did not intend to accept new obligations in a second commitment period, positions indicated by black boxes in the proposed new reduction schedule for all three countries. The United States, still not a party to the Kyoto Protocol, was formally not part of this process, despite having made non-binding representations in 2009 in Copenhagen.

COP 17 created an Ad Hoc Working Group on the Durban Platform for Enhanced Action (“ADP”).⁶⁸ The ADP was mandated “to develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties,”⁶⁹ to be adopted at COP 21 in Paris at the end of 2015 and to take effect in 2020—that is, at the end of the Kyoto Protocol’s second commitment period. In the same decision, the COP launched a related undertaking aimed at closing the “ambition gap with a view to ensuring the highest possible mitigation efforts by all Parties”⁷⁰—that is, encouraging more aggressive emission-reduction commitments.

COP 19, held in Warsaw in 2013, instructed the ADP to identify “elements for a draft negotiating text . . . including . . . mitigation, adaptation, finance, technology development and transfer, capacity-building and transparency of action and support.”⁷¹ The same decision anticipates that “intended nationally determined contributions” (“INDCs”) will be identified by the first

arts. 39–40. An earlier amendment, which also has not yet entered into force, would have added Belarus to those states accepting emission-reduction obligations during the Protocol’s first commitment period. See Proposal from Belarus to Amend Annex B to the Kyoto Protocol, Dec. 10/CMP.2, U.N. Doc. FCCC/KP/CMP/2006/10/Add.1, at 36 (Mar. 2, 2007).

⁶⁶ See Canada: Withdrawal, C.N.796.2011.TREATIES-1 (Depositary Notification) (Dec. 16, 2011).

⁶⁷ See Marrakesh Rules, *supra* note 31; see also Canada’s Withdrawal from the Kyoto Protocol and Its Effects on Canada’s Reporting Obligations Under the Protocol, U.N. Doc. CC/EB/25/2014/2, at para. 36 (Aug. 20, 2014) (considering jurisdiction of enforcement branch to consider a “question of implementation” relating to a non-Party).

⁶⁸ Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action, Dec. 1/CP.17, U.N. Doc. FCCC/CP/2011/9/Add.1, at 2 (Mar. 15, 2012) [hereinafter Durban Platform Ad Hoc Working Group Establishment, Dec. 1/CP.17].

⁶⁹ *Id.* para. 2. In addition to a new protocol, the possibilities for a “legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties” include an amendment to the Convention or another amendment to the Kyoto Protocol. COP and CMP decisions are non-binding. See Werksman, *supra* note 48.

⁷⁰ Durban Platform Ad Hoc Working Group Establishment, Dec. 1/CP.17, *supra* note 68, para. 7.

⁷¹ Further Advancing the Durban Platform, Dec. 1/CP.19, U.N. Doc. FCCC/CP/2013/10/Add.1, at 3, para. 2(a) (Jan. 31, 2014) [hereinafter Further Advancing the Durban Platform, Dec. 1/CP.19].

quarter of 2015 “by those Parties ready to do so”⁷² with a view to ensuring the highest possible mitigation efforts by all parties. National submissions are “without prejudice to the legal nature of the contributions.”⁷³

The most recent conference of the parties, COP 20 held in Lima, Peru, at the end of 2014, produced the “Lima Call For Climate Action” in the form of a COP decision.⁷⁴ The decision contains “elements for a draft negotiating text”⁷⁵ designed to set out the framework for further discussion of the “protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties.”⁷⁶

With respect to mitigation, and consistent with the instrument’s applicability to all parties, there are numerous options as to the formulation of commitments from individual states beyond, or in addition to, the Kyoto-style, single, economy-wide numerical reduction targets. So, for instance, the draft framework includes national economy-wide commitments based on carbon intensity and sector-specific commitments as options.⁷⁷ As of this writing, the next juncture can be expected to be the submission by parties to the Convention of the crucial INDCs, expected by the first quarter of 2015, “by those Parties ready to do so.”⁷⁸

The United States’ position was set out by Todd Stern shortly before the Lima COP as follows:

The Durban mandate says, in effect, that the new agreement will be a legally binding one in at least some respects, but doesn’t specify which ones. . . . [T]here would be a legally binding obligation to submit a “schedule” for reducing emissions, plus various legally binding provisions for accounting, reporting, review, periodic updating of the schedules, etc. But the content of the schedule itself would not be legally binding at an international level.⁷⁹

⁷² *Id.* para. 2(b). For submissions to the ADP in 2014, see *Submissions from Parties to the ADP in 2014*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, <http://perma.cc/WC9G-8P8G>.

⁷³ Further Advancing the Durban Platform, Dec. 1/CP.19, *supra* note 71, para. 2(b).

⁷⁴ Lima Call for Climate Action, Dec. -/CP.20, <https://perma.cc/2T7V-YLVS> [hereinafter Lima Call for Climate Action].

⁷⁵ *Id.* para. 5.

⁷⁶ Durban Platform Ad Hoc Working Group Establishment, Dec. 1/CP.17, *supra* note 68, para. 2.

⁷⁷ See Lima Call for Climate Action, *supra* note 74, Annex para. 16.4, Option 2, para. b (identifying forms of national commitments, including “(a) a quantified, economy-wide, absolute emission limitation or reduction target in relation to a baseline year; (b) a quantified, economy-wide, emission limitation or reduction target relative to a projection of its emissions; (c) a quantified, economy-wide, emission limitation or reduction target relative to unit of GDP in relation to a previous year; (d) a quantified, economy-wide, emission limitation and reduction target per capita; (e) non-economy-wide actions”).

⁷⁸ Further Advancing the Durban Platform, Dec. 1/CP.19, *supra* note 71, para. 2(b). The Secretariat posts the INDCs as they are delivered at *INDCs as Communicated by Parties*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, <http://perma.cc/2HWP-M8AJ>.

⁷⁹ Remarks of Todd Stern, *supra* note 1. The legal form of a commitment, whether legally binding or merely precatory, may be dispositive in a judicial proceeding. See, e.g., *Natural Res. Def. Council v. EPA*, 464 F.3d 1, 7–10 (D.C. Cir. 2006) (declining to apply non-binding decisions of meeting of parties to Montreal Protocol on Substances That Deplete the Ozone Layer). And only a

The U.S. submission before the most recent COP, held in Lima, Peru, is consistent with this position.⁸⁰ The U.S. submission from February 2014,⁸¹ addressing “elements of the 2015 agreement,” anticipates that “[s]chedules may include more than one mitigation contribution, for example, a hard cap in one sector with emissions that are easy to project, an intensity target in another sector, and policies in a third sector.”⁸²

The United States released its INDC on March 31, 2015.⁸³ After years of the President reiterating the 17% goal to be achieved by 2020, originally identified in the Waxman-Markey bill,⁸⁴ the United States set out “an economy-wide target of reducing its greenhouse gas emissions by 26–28 per cent below its 2005 level in 2025 and to make best efforts to reduce its emissions by 28%.”⁸⁵

legally binding international instrument operates through the Supremacy Clause as federal law with respect to the states. Many of the procedural obligations, such as accounting, reporting, and review, identified by Stern as provisions that the United States would be prepared to accept as binding obligations, parallel those contained in the FCCC, *see supra* text accompanying notes 6–13, and are therefore presumably non-controversial by comparison with substantive mitigation goals.

⁸⁰ U.S. SUBMISSION—SEPTEMBER 2014, *supra* note 1. Although one might argue about the difference in practical effect between legally binding obligations and non-binding undertakings, as a formal matter they are clearly and crisply distinct. *See, e.g.,* José E. Alvarez, *The New Dispute Settlers: (Half) Truths and Consequences*, 38 TEX. INT'L L.J. 405, 421 (2003) (“[E]specially positivists . . . have argued that the very term ‘soft law’ is an oxymoron that erroneously suggests that binding authority lies along a spectrum (thus denying the fundamental distinction between *lex lata* and *lex ferenda*), disrespects the significance of traditional state-centric international sources of obligation, confuses the domain of law and politics, and undermines international lawyers’ attempts to convince people that international law is comparable to domestic law.”).

⁸¹ U.S. SUBMISSION ON ELEMENTS OF THE 2015 AGREEMENT (2014), <http://perma.cc/U4M9-AA4R>.

⁸² *Id.* at 1, 3. Taxes on energy intensity of fuels or products, or life-cycle carbon equivalents released during a product’s use or manufacture, have been widely discussed for a considerable time as a form of structuring a global agreement, as well as a vehicle for implementing national commitments. *See generally, e.g.,* Reuven S. Avi-Yonah & David M. Uhlmann, *Combating Global Climate Change: Why a Carbon Tax Is a Better Response to Global Warming Than Cap and Trade*, 28 STAN. ENVTL. L.J. 3 (2009); Roberta F. Mann, *The Case for the Carbon Tax: How to Overcome Politics and Find Our Green Destiny*, 29 ENVTL. L. REP. (Envtl. Law Inst.) 10,118 (Feb. 2009); Stephen Sewalk, *Carbon Tax with Reinvestment Trumps Cap-and-Trade*, 30 PACE ENVTL. L. REV. 580 (2013); Stephen Sewalk, *The EU-27, U.S., U.K., and China Should Dump Cap-and-Trade as a Policy Option and Adopt a Carbon Tax with Reinvestment to Reduce Global Emissions*, 47 SUFFOLK U. L. REV. 525 (2014); Jonathan Shaw, *Time to Tax Carbon: Enhancing Environmental Quality and Economic Growth*, HARV. MAG., Sept.–Oct. 2014, at 52 (interview with Dale Jorgenson); *see also* James W. Coleman, *Unilateral Climate Regulation*, 38 HARV. ENVTL. L. REV. 87, 121 (2014) (arguing that a carbon tax is an especially effective regulatory design for leveraging action by other jurisdictions). Although a carbon tax can be accommodated within the broad language of the ADP mandate, the likelihood that such a strategy will be adopted as the core of a global agreement appears low, although individual parties may very well rely upon energy or GHG taxes as part of their national mitigation strategies.

⁸³ U.S. COVER NOTE, INDC, AND ACCOMPANYING INFORMATION (2015) [hereinafter U.S. INDC], <http://perma.cc/C92R-7ZTF>. The Convention Secretariat publishes INDCs as they are received at INDCs as Communicated by Parties, *supra* note 78.

⁸⁴ *See infra* text accompanying note 119. Baseline emissions in 2005 were 6,741 million short tons of CO₂ equivalents, and the expectation under a business-as-usual baseline was 6,689 million tons for 2020. A 17% reduction would require reaching a target of 5,595 million tons in 2020. *See* Dallas Burtraw & Matt Woerman, *US Status on Climate Change Mitigation* 3 (Resources for the Future Discussion Paper No. 12-48, 2012), <http://perma.cc/5KDM-RWFU>.

⁸⁵ U.S. INDC, *supra* note 83, at 1.

This was not unexpected, as those numerical targets track those in the understanding with China reached in November 2014.⁸⁶ Under the heading, “Domestic laws, regulations, and measures relevant to implementation,” the U.S. INDC identifies “completed” regulatory actions, including mandated increases in vehicle fuel efficiency.⁸⁷ Proposed actions underway include EPA’s proposed regulations, to be “finalize[d] by summer 2015 . . . to cut carbon pollution from new and existing power plants.”⁸⁸ Unlike the European Union⁸⁹ and Norwegian⁹⁰ INDCs, both of which identify their contributions as “binding,” the U.S. INDC does not identify the legal force of its proposed targets.⁹¹

II. DOMESTIC LEGAL DEVELOPMENTS WITH INTERNATIONAL SIGNIFICANCE

Consistent with the British doctrine of the supremacy of Parliament from which the American legal system is derived, the United States is primarily a dualist system, in which the international and domestic legal orders do not intersect except through the operation of some mechanism linking the two. Binding agreements, whose parties are states, operate as the legal equivalent of a contract or compact in the international legal order, thereby making law for the states parties to them.⁹² Treaties have binding effect on the domestic level as well,⁹³ typically with the legal force of a statute. Because the international and

⁸⁶ Press Release, U.S.-China Joint Announcement on Climate Change (Nov. 11, 2014), <http://perma.cc/VA6Z-K2HX>. China promised to “achieve the peaking of CO₂ emissions around 2030” and to “increase the share of non-fossil fuels in primary energy consumption to around 20% by 2030.” *Id.* Prefiguring the identical pledge in its INDC released the following March, the United States pledged to economy-wide reductions of 26–28% below 2005 levels by 2025, plus best efforts to reach 28%, a more ambitious undertaking than any announced to that date for that period. *Id.* The Joint Announcement is a non-binding statement of purpose, not a binding international agreement governed by international law.

⁸⁷ U.S. INDC, *supra* note 83, at 4.

⁸⁸ *Id.* at 5.

⁸⁹ SUBMISSION BY LATVIA AND THE EUROPEAN COMMISSION ON BEHALF OF THE EUROPEAN UNION AND ITS MEMBER STATES (2015) [hereinafter EU INDC], <http://perma.cc/6ZX2-DM7T>.

⁹⁰ SUBMISSION BY NORWAY TO THE ADP (2015), <http://perma.cc/Y8KC-WTZG>.

⁹¹ *Cf. infra* note 170 (binding legal character determined by intent).

⁹² Known as the principle of *pacta sunt servanda*, this rule is one of the cornerstones of public international law. Vienna Convention on the Law of Treaties, *supra* note 34, art. 26 (“Every treaty in force is binding upon the parties to it and must be performed by them in good faith.”). The test of an instrument’s legally binding character is the underlying intent to be bound. *See* 22 C.F.R. § 181.2 (2014) (State Department regulations establishing standards for identifying international agreement); RESTATEMENT, *supra* note 34, § 301.

⁹³ U.S. CONST. art. VI, § 2 (“[A]ll treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land . . .”). Treaties that are not “self-executing” may require, in addition to Senate advice and consent to ratification, the adoption of implementing legislation to effectuate their purposes as a matter of domestic law. *See, e.g., Foster v. Neilson*, 27 U.S. (2 Pet.) 253, 314 (1829); *Comm. of U.S. Citizens Living in Nicar. v. Reagan*, 859 F.2d 929, 937–38 (D.C. Cir. 1988); *United States v. Postal*, 589 F.2d 862, 875–77 (5th Cir. 1979), *cert. denied*, 444 U.S. 832 (1979); RESTATEMENT, *supra* note 34, § 111 cmt. h. & reporters’ note 5; LOUIS HENKIN, FOREIGN AFFAIRS AND THE CONSTITUTION 156–62 (1972).

domestic regimes are conceptually and legally distinct, meshing the two can under some circumstances be complex, a form of a two-level game.⁹⁴

Far from remaining static, since the adoption of the U.N. Framework Convention on Climate Change in 1992, domestic law and policy on climate change in the United States has moved forward—although not, as described above, consistent with or guided by the international Framework Convention/Kyoto Protocol structure. There have been significant developments at every level and in many governmental departments in the United States, including in all three branches at the federal level. These initiatives in turn have substantially expanded the array of legal approaches that might be deployed to harmonize U.S. and international climate policy.

But recent domestic regulatory initiatives, such as the President's Climate Action Plan, and the multilateral negotiations under the authority of the FCCC have continued to move on largely distinct tracks that have yet to converge, even as the time between now and Paris is growing ever shorter. The President has pledged to “[l]ead [i]nternational [e]fforts to [c]ombat [g]lobal [c]limate [c]hange.”⁹⁵ At the same time, press reports and official statements have tended to lower expectations for the level of ambition to be expected from the United States, particularly with respect to the legal form of mitigation commitments.⁹⁶ The imminence of COP 21 in Paris is an occasion to ask whether and to what extent the United States may be able to commit to binding obligations that are more substantial in both kind and magnitude than received wisdom has previously suggested.

As discussed in Part III below, all these developments have international legal significance for the U.S. INDC and the agreement to be adopted in Paris. As discussed in Part III, to the extent that the President has already taken action, or has the authority to do so under existing laws like the Clean Air Act, Senate participation is arguably unnecessary because those statutes and regulations provide the necessary legal authority for the President to enter into binding commitments on behalf of the United States in the form of an executive agreement. As set out in this Part, the legal and policy setting is now entirely different from the late 1990s, at the time of Kyoto when the United States had done little to cut climate-disrupting carbon emissions, and has dramatically changed even since the Copenhagen conference in 2009.

⁹⁴ See generally, e.g., David A. Wirth, *A Matchmaker's Challenge: Marrying International Law and American Environmental Law*, 32 VA. J. INT'L L. 377 (1992).

⁹⁵ CLIMATE ACTION PLAN, *supra* note 2, at 5.

⁹⁶ See *supra* note 1.

A. Massachusetts v. EPA

In mid-March 2001, President George W. Bush reversed a major campaign promise⁹⁷ and decided not to regulate CO₂ emissions from power plants under the Clean Air Act, a move that prefigured his decision declining to ratify the Kyoto Protocol about two weeks later.⁹⁸ The Clean Air Act already regulates emissions and ambient levels of sulfur dioxide, nitrogen oxides, carbon monoxide, lead, ground-level ozone, and particulate matter (soot). The statute quite plausibly could—and, as later confirmed by the Supreme Court, does⁹⁹—provide a domestic statutory basis for the United States at least partially to meet its Kyoto target of a reduction of all GHGs, weighted for the impact on climate, by 7% by reference to 1990 levels.¹⁰⁰

At the time of the President's announcement, a petition from nineteen environmental organizations was pending with EPA, requesting the Agency to regulate emissions of GHGs from new motor vehicles under section 202 of the Clean Air Act.¹⁰¹ Consistent with the President's 2001 decision, EPA denied the petition in 2003.¹⁰² Twelve states, along with several municipalities and public interest organizations, filed suit, challenging the denial. After they lost in the United States Court of Appeals for the District of Columbia Circuit,¹⁰³ the Supreme Court granted certiorari. In *Massachusetts v. EPA*, the Court reversed by a 5–4 vote, rejecting the arguments relied on by the court of appeals.¹⁰⁴

The Court concluded that EPA has the authority to regulate GHGs,¹⁰⁵ and has a nondiscretionary duty to consider whether GHGs “cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.”¹⁰⁶ If EPA were to make such a determination, it would then be under a mandatory duty to regulate emissions of GHGs from mobile sources—principally automobiles and trucks—under section 202 of the Clean Air Act unless “it determines that greenhouse gases do not contribute to climate change or if it

⁹⁷ See Robert V. Percival, *Presidential Power to Address Climate Change in an Era of Legislative Gridlock*, 32 VA. ENVTL. L.J. 134, 140–42 (2014) (documenting President Bush's “stunning policy reversal”); see also Bush Letter, *supra* note 33.

⁹⁸ See *supra* text accompanying note 33.

⁹⁹ *Massachusetts v. EPA*, 549 U.S. 497 (2007).

¹⁰⁰ Kyoto Protocol, *supra* note 23, Annex B. The United States' most recent submission to the FCCC states that:

In 2011, total U.S. greenhouse gas emissions were 6,702.3 Tg, or million metric tons, CO₂ Eq. [weighted according to global warming potentials determined by the potency of each contributing gas.] Total U.S. emissions have increased by 8.4 percent from 1990 to 2011, and emissions decreased from 2010 to 2011 by 1.6 percent (108.0 Tg CO₂ Eq.).

EPA, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990–2011, at ES-4 (2013), <http://perma.cc/2T9C-LKJP> (to access, download United States National Inventory Report file).

¹⁰¹ 42 U.S.C. § 7521 (2012).

¹⁰² Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922, 52,925 (Sept. 8, 2003).

¹⁰³ *Massachusetts v. EPA*, 415 F.3d 50, 58–59 (D.C. Cir. 2005), *rev'd*, 549 U.S. 497 (2007).

¹⁰⁴ *Massachusetts*, 549 U.S. at 535.

¹⁰⁵ *Id.* at 528–33.

¹⁰⁶ *Id.* at 533–35; see also 42 U.S.C. § 7521(a)(1).

provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do.”¹⁰⁷

B. Legislative Activity

Despite the current domestic policy, political, and legal prominence of the climate issue, even now there is relatively little federal statutory authority directly addressing GHGs. Those legislative efforts that might have tied the U.S. legal system into the Kyoto structure were not effective in achieving this goal.

Congress in the Global Climate Protection Act of 1987 (“GCPA”)¹⁰⁸ made an initial foray into the field of climate change. The GCPA is largely structural, in the sense that it articulates responsibilities among different departments of the executive branch in addressing this then-new challenge. The GCPA directs that “[t]he President, through the Environmental Protection Agency, shall be responsible for developing and proposing to Congress a coordinated national policy on global climate change.”¹⁰⁹ The statute also charges the State Department with the “[c]oordination of United States [p]olicy in the [i]nternational [a]rena.”¹¹⁰ The GCPA does not mandate reductions in GHG emissions from the United States.

In terms of new legislative initiatives that might mesh domestic law with the FCCC/Kyoto cap-and-trade regime, the results have been disappointing. As evidence of anthropogenically-induced climate warming increased, so did legislative proposals. Most legislative proposals have had a cap-and-trade approach similar to the Kyoto Protocol. For instance, the proposed McCain-Lieberman Climate Stewardship and Innovation Act,¹¹¹ introduced in 2005, would have capped 2010 emissions at their 2000 levels. The measure was endorsed by the presidential candidates of both major parties in the 2008 elec-

¹⁰⁷ *Massachusetts*, 549 U.S. at 533. Former Secretary of State Madeleine Albright filed an amicus brief in the case, challenging EPA’s assertion that it ought not be mandated to regulate GHGs unilaterally in the United States because that could potentially cost the United States leverage to demand reciprocal reductions from other states in the international negotiations under the FCCC. Brief for Amicus Curiae Madeleine K. Albright in Support of Petitioners at 11–16, *Massachusetts*, 549 U.S. 497 (No. 05-1120), 2006 WL 2570988, at *11–16. The Secretary noted that the United States had frequently implemented unilateral policies on many international environmental issues prior to concluding reciprocal agreements with foreign states on similar subject matters. *Id.* at 10–11. She then went on to make the relatively obvious point that it was unreasonable to expect refraining from regulating to be an effective strategy to leverage emission reductions from potential treaty partners when “[t]he United States has declined to pursue mandatory emissions reductions under the auspices of the U.N. Framework Convention on Climate Change, the Kyoto Protocol, or any other international bilateral or multilateral process whose purpose is to provide the forum for negotiating *quid pro quo* reductions in greenhouse gas emissions.” *Id.* at 13–14 (footnotes omitted).

¹⁰⁸ Pub. L. No. 100-204, §§ 1101–06, 101 Stat. 1331, 1407–09 (codified at 15 U.S.C. § 2901 note (2012)).

¹⁰⁹ *Id.* § 1103(b).

¹¹⁰ *Id.* § 1103(c).

¹¹¹ Climate Stewardship and Innovation Act of 2005, S. 1151, 109th Cong. (2005). Although defeated by a vote of thirty-eight yeas to sixty nays on the Senate floor, 151 CONG. REC. 13,657 (2005), the bill was influential as a bipartisan initiative on climate change that garnered significant support.

tion.¹¹² Then-Speaker of the House of Representatives Nancy Pelosi created a Select Committee on Energy Independence and Global Warming, chaired by then-Representative Ed Markey.¹¹³

In 2009, in the context of his first budget proposal, President Obama promoted a legislative initiative under the rubric of “cap and trade,” presumably to mimic the Kyoto Protocol’s structure.¹¹⁴ The measure became mired in political maneuvering over revenue questions, and some constituencies labeled it a new tax because of the bill’s requirement for regulated entities to purchase at least some initial emission allowances from the government.¹¹⁵ More or less by default, the benchmark with respect to legislative proposals is consequently taken to be H.R. 2454, the American Clean Energy and Security Act of 2009, introduced by Congressmen Waxman and Markey.¹¹⁶ Alone among legislative initiatives, the bill passed one chamber of Congress, the House of Representatives, in June 2009 by a vote of 219–212 with the support of the Obama Administration.¹¹⁷

The Waxman-Markey legislation would have established a long-term emission-reduction target of 83% by 2050, using 2005 as the base year.¹¹⁸ Interim reductions targets for 2020 were more controversial, with the legislation calling for reductions of 17%, again using 2005 as the base year.¹¹⁹ Chastened by the “cap-and-trade” budget battle, and in what is generally taken as an acknowledgement of political reality, the allocation of most initial allowances would be gratis in predetermined amounts to specific sectors such as electric utilities,¹²⁰ as opposed to an auction which might have generated significant revenue for the Treasury as well as have created an incentive for earlier reductions by the regulated community.

Other important features of H.R. 2454 included: requirements for electric utilities to meet 20% of their electricity demand from renewables and energy efficiency by 2020;¹²¹ mandated energy-efficiency standards for buildings, appliances and industry; and investments in clean energy technologies, energy efficiency, renewables, carbon capture and sequestration, and electric and other advanced technology vehicles.¹²² The Waxman-Markey bill also included at-the-border offsets for imports of energy-intensive products from countries that

¹¹² See Vicki Arroyo, Vice President for Policy Analysis and Gen. Counsel, Pew Ctr. on Global Climate Change, Overview of U.S. Climate Policy (Oct. 2008), <http://perma.cc/T2QM-ZB8C>.

¹¹³ H.R. Res. 202, 110th Cong. § 4 (2007) (enacted).

¹¹⁴ OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, A NEW ERA OF RESPONSIBILITY: RENEWING AMERICA’S PROMISE 100 (2009), <http://perma.cc/8EPV-7577>.

¹¹⁵ See, e.g., John M. Broder, “Cap and Trade” Loses Its Standing as Energy Policy of Choice, N.Y. TIMES, Mar. 26, 2010, at A13.

¹¹⁶ American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009).

¹¹⁷ 155 CONG. REC. 16,740 (2009).

¹¹⁸ H.R. 2454 § 703(a)(4).

¹¹⁹ *Id.* § 703(a)(2). This is the “pending legislation” referred to in the U.S. submission under the Copenhagen Accord, with numbers that track the Waxman-Markey proposal. See *supra* text accompanying notes 58–60.

¹²⁰ H.R. 2454 §§ 781–95.

¹²¹ *Id.* § 101.

¹²² *Id.* tits. I–II.

do not have similar reduction schemes in place.¹²³ Ultimately, the Senate failed to adopt an analogous bill and the Waxman-Markey legislation never became law. The legislative momentum on climate change faded, a situation that prevails as of this writing. The Waxman-Markey targets, however, did inform the U.S. submission to the Copenhagen Accord, albeit in a contingent form.¹²⁴

C. *The Obama EPA's Post-Massachusetts Actions*

EPA did not take further action under the Supreme Court's opinion in *Massachusetts v. EPA* until 2009, after the election of President Obama. Particularly by comparison with the lackluster success of legislative initiatives described in the previous section, it became clear that *Massachusetts v. EPA* had dramatically changed the regulatory landscape.

President Obama had pledged to take executive branch action if Congress failed to act on climate change. Consistent with that promise, in April 2009 EPA proposed two findings in response to the clearly delineated instructions to it contained in the Supreme Court's opinion.¹²⁵ In the first, an "endangerment" finding, the EPA Administrator found that the current and projected concentrations of six well-mixed GHGs and families of gases whose concentrations are essentially uniform worldwide¹²⁶ in the atmosphere threaten the public health and welfare of current and future generations.¹²⁷ In the second, the "cause or contribute" finding, the Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.¹²⁸

EPA subsequently issued a number of important related regulations. The first was the vehicle ("tailpipe") rule.¹²⁹ This is the regulation anticipated by the holding in *Massachusetts v. EPA*, promulgated together with the National Highway Traffic Safety Administration. The principal regulatory tool is an increase in vehicle fuel efficiency standards, estimated to save more than six billion barrels of oil through 2025 and to reduce CO₂ emissions by more than

¹²³ *Id.* tit. IV.

¹²⁴ See *supra* text accompanying note 59.

¹²⁵ See *supra* text accompanying notes 105–07.

¹²⁶ Carbon dioxide ("CO₂"), methane ("CH₄"), nitrous oxide ("N₂O"), hydrofluorocarbons ("HFCs"), perfluorocarbons ("PFCs"), and sulfur hexafluoride ("SF₆"). These are the same six substances and categories of substances regulated under the first commitment period of the Kyoto Protocol, *supra* note 23, Annex A.

¹²⁷ Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,497 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1) [hereinafter Endangerment Finding].

¹²⁸ *Id.* at 66,499.

¹²⁹ Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. 25,324 (May 7, 2010) (to be codified in scattered parts of 40 and 49 C.F.R.) [hereinafter Tailpipe Rule].

3,000 million metric tons.¹³⁰ The rule also prescribed a minimum percentage of renewable fuels as a component of gasoline and diesel fuel.¹³¹

Second, EPA issued regulations creating reporting requirements for new and modified stationary sources of air pollution based on their GHG emissions—known as the “reporting,” “timing,” and “tailoring” rules.¹³² In anticipation of subsequent regulation of large stationary sources, EPA required reporting of GHG data from large emission sources across a diverse array of industry sectors. It also established GHG emission thresholds for facilities that would be regulated under EPA’s Prevention of Significant Deterioration (“PSD”) program, setting out technology-based emission limitations, and Title V permitting requirements. EPA modified the statutory requirements (“tailoring”) to capture only larger installations, and specified that the emission limitations would become effective at the same time as the vehicle rule (“timing”), in January 2011.

D. *The President’s Climate Action Plan*

In June 2013, at a speech at Georgetown University, the President unveiled his Climate Action Plan (“CAP”),¹³³ a comprehensive agenda for further action in response to the threat of climate change that relies on executive authority. He simultaneously released a presidential memorandum¹³⁴ directing EPA further to regulate GHG emissions from new power plants, as well as modified, reconstructed, and existing facilities, under the Clean Air Act.¹³⁵

Relying on the authority of section 111 of the Clean Air Act,¹³⁶ EPA had originally published proposed standards for new power plants in 2012¹³⁷ and,

¹³⁰ See *Regulatory Initiatives*, EPA, <http://perma.cc/J4GM-P4T5>.

¹³¹ See Tailpipe Rule, *supra* note 129, at 25,330–31. Subsequent regulations cover light-duty vehicles through model year 2025, 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62,624 (Oct. 15, 2012) (to be codified in scattered parts of 40 and 49 C.F.R.), and heavy-duty vehicles through 2018, Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, 76 Fed. Reg. 57,106 (Sept. 15, 2011) (to be codified in scattered parts of 40 and 49 C.F.R.).

¹³² Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 Fed. Reg. 17,004 (Apr. 2, 2010) (to be codified at 40 C.F.R. pts. 50–51, 70–71); Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514 (June 3, 2010) (to be codified at 40 C.F.R. pts. 51–52, 70–71) [hereinafter Tailoring Rule]. See *infra* Part II.E for discussion of the Supreme Court’s decision largely upholding these rules.

¹³³ CLIMATE ACTION PLAN, *supra* note 2.

¹³⁴ Memorandum on Power Sector Carbon Pollution Standards, 2013 DAILY COMP. PRES. DOC. 1–3 (June 25, 2013).

¹³⁵ 42 U.S.C. § 7411 (2012) (standards of performance for new stationary sources).

¹³⁶ *Id.*

¹³⁷ Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, 77 Fed. Reg. 22,392 (proposed Apr. 13, 2012) (to be codified at 40 C.F.R. pt. 60).

pursuant to the President's memorandum, subsequently re-proposed them.¹³⁸ The proposal would set an emissions limit of 1,100 pounds of CO₂ per megawatt-hour of electricity generated by new coal-fired electric power plants, and similar standards for natural gas-fired units.¹³⁹ The proposal assumes a carbon removal rate of approximately 40% through the deployment of carbon-capture-and-sequestration technology.¹⁴⁰

The second major component of the CAP, EPA's proposed "Clean Power Plan" addressing GHG emissions from existing power plants under the authority of section 111(d) of the Clean Air Act, was published in June 2014.¹⁴¹ The Clean Power Plan is scheduled to be finalized by June 2015, several months before COP 21 in Paris. The proposal articulates state-specific standards, framed in terms of pounds of CO₂ permitted per megawatt-hour of electricity produced at a regulated facility.

EPA identified four "building blocks" that it expected states could employ in crafting their plan, which subsequently would require Agency approval: (1) improving operating efficiency; (2) emissions averaging across power plants; (3) substitution of zero-carbon options (for example, renewables or nuclear); and (4) demand reduction through end-use energy-efficiency improvements.¹⁴² Among other options available are carbon taxes; real or shadow prices on carbon emissions; and participation in single- or multi-state emission trading programs.¹⁴³

The CAP is multi-sectoral, including, in addition to reductions from power plants, the following components: (1) doubling electricity generation from renewables, including wind, solar, and geothermal, by 2020; (2) eliminating tax incentives benefiting fossil fuels; (3) increasing federal funding for research and development into clean energy options; (4) developing next-generation low-carbon transportation options; (5) strengthening efficiency standards for appliances and federal buildings; and (6) developing an interagency methane strategy.¹⁴⁴

¹³⁸ Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 1430 (proposed Jan. 8, 2014) (to be codified at 40 C.F.R. pts. 60, 70–71, 98).

¹³⁹ *Id.* at 1433.

¹⁴⁰ See, e.g., David A. Wirth, *Engineering the Climate: Geoengineering as a Challenge to International Governance*, 40 B.C. ENVTL. AFF. L. REV. 413 (2013).

¹⁴¹ Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830 (proposed June 18, 2014) (to be codified at 40 C.F.R. pt. 60) [hereinafter Carbon Pollution Emission Guidelines for Existing Stationary Sources].

¹⁴² See *FACT SHEET: Clean Power Plan Framework*, EPA, <http://perma.cc/QEZ9-AA96>.

¹⁴³ See generally Carbon Pollution Emission Guidelines for Existing Stationary Sources, *supra* note 141.

¹⁴⁴ See JANE A. LEGETT, CONG. RESEARCH SERV., R43120, PRESIDENT OBAMA'S CLIMATE ACTION PLAN (2014); see also THE WHITE HOUSE, PRESIDENT OBAMA'S CLIMATE ACTION PLAN: PROGRESS REPORT (2014), <http://perma.cc/7AGC-HUL6> [hereinafter PROGRESS REPORT]. Cf. *infra* note 147 (President Obama's statement to 2014 Climate Summit that he has reiterated emission reduction pledge for five years).

Although the President in the CAP commits to “leading efforts to address climate change through international negotiations,”¹⁴⁵ those commitments are vague, general, procedurally oriented, and largely restate received wisdom. Tellingly, nowhere does the CAP describe how the President intends to meet the quantitative goal of a 17% reduction from 2005 emissions of CO₂ equivalents by 2020, identified in the U.S. submission to the FCCC process after the Copenhagen meeting¹⁴⁶ and subsequently repeatedly intoned.¹⁴⁷

E. EPA’s Regulations in the Courts

EPA’s regulations have fared rather well in the courts thus far, surviving a number of major challenges. In the process, the courts have confirmed not only EPA’s authority to regulate GHGs under the Clean Air Act, established in *Massachusetts v. EPA*, but have also addressed many of the particulars of multiple regulations undertaken pursuant to that statutory authority.

American Electric Power Co. v. Connecticut (“AEP”)¹⁴⁸ began life as a pre-*Massachusetts* attempt by eight states, the City of New York, and a number of nonprofit land trusts to obtain judicially ordered relief requiring reductions in emissions of GHGs directly from utilities under the federal common law of nuisance.¹⁴⁹ After initial dismissal in the district court based on the political question doctrine,¹⁵⁰ the United States Court of Appeals for the Second Circuit reversed,¹⁵¹ concluding that the Clean Air Act did not displace the federal common law of nuisance. By the time the case reached the Supreme Court, EPA had already adopted technology-based emission limitations under the PSD pro-

¹⁴⁵ CLIMATE ACTION PLAN, *supra* note 2, at 21; *see also* PROGRESS REPORT, *supra* note 144, at 13–14.

¹⁴⁶ *See supra* text accompanying notes 59–60.

¹⁴⁷ *See* LEGETT, *supra* note 144, at iii (“Notably, the CAP does not quantify whether it would meet the President’s commitment to reduce GHG emissions by 17% from 2005 levels by 2020.”). As recently as September 2014, the President formally reminded the world that:

Five years ago, I pledged America would reduce our carbon emissions in the range of 17 percent below 2005 levels by the year 2020. America will meet that target. And by early next year, we will put forward our next emission target, reflecting our confidence in the ability of our technological entrepreneurs and scientific innovators to lead the way.

Remarks by the President at U.N. Climate Change Summit (Sept. 23, 2014), <https://perma.cc/WJJ8-FJL5>. The President’s 2015 State of the Union address was less specific, particularly with respect to the global negotiations:

In Beijing, we made an historic announcement—the United States will double the pace at which we cut carbon pollution, and China committed, for the first time, to limiting their emissions. And because the world’s two largest economies came together, other nations are now stepping up, and offering hope that, this year, the world will finally reach an agreement to protect the one planet we’ve got.

Remarks of President Barack Obama—As Prepared for Delivery State of the Union Address (Jan. 20, 2015), <http://perma.cc/UM3Z-93YS>; *see also supra* note 86 (describing November 2014 U.S.–China joint announcement).

¹⁴⁸ 131 S. Ct. 2527 (2011).

¹⁴⁹ *Connecticut v. Am. Elec. Power Co.*, 406 F. Supp. 2d 265, 267 (S.D.N.Y. 2005).

¹⁵⁰ *Id.* at 274.

¹⁵¹ *Connecticut v. Am. Elec. Power Co.*, 582 F.3d 309, 392 (2d Cir. 2009).

gram and had initiated a rulemaking under section 111 of the Act addressing emissions of GHGs from new, modified, or existing fossil fuel-fired power plants.

Without dissent, the Supreme Court reversed the court of appeals and rejected plaintiffs' claims, holding that the Clean Air Act displaced the federal common law of nuisance.¹⁵² The Court took particular note of EPA's then-existing exercise of its authority under the statute. At that time, those actions consisted of endangerment and cause or contribute findings,¹⁵³ the light-duty vehicle emissions and fuel economy standards,¹⁵⁴ and emission limitations as part of the PSD program,¹⁵⁵ all of which had been published in final form, and commitments from EPA to propose and finalize rules dealing with new and existing power plants under sections 111(b) and (d).¹⁵⁶ Against this background, observed the Court, "*Massachusetts [v. EPA]* made plain that emissions of carbon dioxide qualify as air pollution subject to regulation under the Clean Air Act. . . . And it is equally plain that the Act 'speaks directly' to emissions of carbon dioxide from defendants' plants."¹⁵⁷

EPA's climate change regulations featured in a Supreme Court case for a third time in *Utility Air Regulatory Group v. EPA* ("*UARG*").¹⁵⁸ This case began as an industry challenge to the endangerment finding and the vehicle, timing, and tailoring rules promulgated after *Massachusetts v. EPA*. The United States Court of Appeals for the District of Columbia Circuit upheld the endangerment finding and the rules,¹⁵⁹ and the Supreme Court granted certiorari limited to a specific point of law concerning the relationship between EPA's finding under section 202 of the statute and EPA's assertion that this finding also triggered the need for regulation of GHGs from a broad array of stationary sources, particularly power plants under the PSD and Title V permitting programs.¹⁶⁰

In deciding the case, the Court struck down the theory employed in EPA's tailoring rule, which would have limited the scope of sources to which GHG permitting requirements applied strictly by virtue of their GHG emissions, as an unwarranted exercise of agency discretion to regulate sources that would require permits only because of their GHG emissions and to reinterpret the statutory mandate in light of administrative imperatives.¹⁶¹ The Court nonetheless upheld the application of technology-based GHG-reduction requirements to facilities requiring permits under the PSD program because of the emission of other pollutants (referred to by the Court as "anyway" sources, because they

¹⁵² See *Am. Elec. Power Co.*, 131 S. Ct. at 2537.

¹⁵³ Endangerment Finding, *supra* note 127.

¹⁵⁴ Tailpipe Rule, *supra* note 129.

¹⁵⁵ Tailoring Rule, *supra* note 132.

¹⁵⁶ See *Am. Elec. Power Co.*, 131 S. Ct. at 2533.

¹⁵⁷ *Id.* at 2537.

¹⁵⁸ 134 S. Ct. 2427 (2014).

¹⁵⁹ *Coal. for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 113 (D.C. Cir. 2012).

¹⁶⁰ See *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 418 (2013) (mem.).

¹⁶¹ See *Util. Air Regulatory Grp.*, 134 S. Ct. at 2446.

were already emitting criteria pollutants).¹⁶² The Court in *UARG* addressed in a footnote the relationship between that case and its earlier opinion in *AEP*. The Court explained:

[T]he [Clean Air] Act’s authorization for EPA to establish performance standards for powerplant greenhouse-gas emissions displaced any federal-common-law right that might otherwise have existed to seek abatement of those emissions. . . . The authorization to which we referred was that given in the [New Source Performance Standards] program of § 7411 [(section 111 of the Clean Air Act)], a part of the Act not at issue here and one that no party in *American Electric Power* argued was ill suited to accommodating greenhouse gases.¹⁶³

Despite the legal deficiencies in the tailoring rule, EPA estimated that after the Supreme Court’s opinion its rules would reach 83% of GHG emissions from regulated power plants, as opposed to 86% had the tailoring rule not been set aside.¹⁶⁴

UARG consequently clarified that EPA does not have the statutory authority to regulate stationary sources that would require permits because of GHG emissions alone. At the same time it confirmed the Agency’s authority to regulate GHGs from “anyway” sources regulated under the PSD program. Although regulations promulgated under section 111 were not directly challenged in *UARG*, in reconciling its holding with *AEP*, the *UARG* Court’s dictum tends to reinforce *AEP*’s statement of the Agency’s authority with respect to establishing GHG emission standards under section 111.¹⁶⁵

III. A BINDING MULTILATERAL EXECUTIVE AGREEMENT ON CLIMATE?

The implicit assumption, dating to the Byrd-Hagel resolution and the adoption of the Kyoto Protocol in 1997, has been that either Senate advice and consent to ratification, new legislation, or both are necessary before the United

¹⁶² *Id.* at 2448–49.

¹⁶³ *Id.* at 2441 n.5.

¹⁶⁴ *Id.* at 2438–39.

¹⁶⁵ As of this writing, those rules are still at the proposal stage, and have already been challenged in the courts. Petition for Extraordinary Writ, *In re Murray Energy Corp.*, No. 14-1112 (D.C. Cir. June 18, 2014). Litigation with respect to regulations implementing an anticipated executive agreement is not necessarily an impediment to the agreement’s conclusion without Senate advice and consent. For example, EPA regulations under section 112 of the Clean Air Act are the subject of a challenge pending in the Supreme Court as of this writing. *Michigan v. EPA*, 135 S. Ct. 702 (2014) (mem.). The petition for review in this case was filed in the United States Court of Appeals for the District of Columbia Circuit on February 16, 2012, and the court of appeals did not decide the case until April 15, 2014. *White Stallion Energy Ctr. v. EPA*, 748 F.3d 1222 (D.C. Cir. 2014). The United States nonetheless concluded the Minamata Convention as an executive agreement on October 18, 2013. See *infra* Part III.C.2 (discussing conclusion of Minamata Convention on mercury as executive agreement). Cf. *infra* notes 183, 218 (international legal responses available if domestic legal authority for executive agreement lacking). The Senate Environment and Public Works Committee held hearings on the legality of the Clean Power Plan on May 5, 2015. *Legal Implications of the Clean Power Plan: Hearing Before the Sen. Comm. on Environment & Public Works*, 114th Cong. (2015).

States can become party to a substantive agreement under the auspices of the Framework Convention that requires reductions in emissions of GHGs. Whether or not that was the case in 1997, or in 2001 when President Bush announced his decision to decline to ratify Kyoto, or for that matter at COP 15 in Copenhagen in 2009,¹⁶⁶ it is a question that is worth reexamining in light of current circumstances. Among other things, the exercise of executive authority under the Clean Air Act to require reductions in emissions of GHGs strongly suggests that domestic law provides sufficient authority for the United States to make at least some portion of its mitigation commitments in Paris in a binding format.

A. *Executive Agreements and U.S. Domestic Law*

The text of the Constitution requires the advice and consent of the Senate, by a two-thirds majority, to the President's ratification of concluded international agreements.¹⁶⁷ But the executive branch also enters into a distinct and much larger category of "executive agreements" on behalf of the United States that, unlike treaties concluded under Article II, Section 2 of the Constitution, do not require subsequent congressional endorsement.¹⁶⁸ In contrast to a treaty in

¹⁶⁶ See generally EMILY C. BARBOUR, CONG. RESEARCH SERV., R41175, INTERNATIONAL AGREEMENTS ON CLIMATE CHANGE: SELECTED LEGAL QUESTIONS (2010).

¹⁶⁷ U.S. CONST. art. II, § 2. The President has the exclusive power to "make Treaties," *id.*, in effect, simultaneously to define both the national law and the international legal obligations of the United States. See generally HENKIN, *supra* note 93, at 130–36. For Article II, Section 2 treaties, the President enters into international commitments provisionally, conditional upon subsequent ratification after Senate advice and consent. See RESTATEMENT, *supra* note 34, § 303 cmt. d; HENKIN, *supra* note 93, at 133–36. The Senate ordinarily has wide discretion to give or withhold its consent to ratification subject to conditions or reservations. See RESTATEMENT, *supra* note 34, § 303 cmt. d; HENKIN, *supra* note 93, at 133–36. Contrary to popular belief, the President, and not the Senate, ratifies treaties, in the sense of perfecting their obligations, but only after Senate advice and consent. S. COMM. ON FOREIGN RELATIONS, 106TH CONG., TREATIES AND OTHER INTERNATIONAL AGREEMENTS: THE ROLE OF THE UNITED STATES SENATE 12 (Comm. Print 2001) (prepared by the Congressional Research Service). Ratification is a political act by the President pursuant to his plenary powers as the "sole organ of the nation in its external relations," *United States v. Curtiss-Wright Export Corp.*, 299 U.S. 304, 319 (1936) (quoting 6 ANNALS OF CONG. 613 (1800)), and has never been subjected to judicial supervision.

Ratification is an action by which a state indicates its formal intention to accept the obligations in an international agreement, in the case of a multilateral agreement typically by delivery of a written instrument to the depositary. Vienna Convention on the Law of Treaties, *supra* note 34, arts. 2(1)(b), 14. Signature ad referendum does not necessarily imply a state's full consent to be bound by an agreement, but instead is frequently intended as a preliminary indication of a state's intent to be bound. "Ratification" in this context then refers to a state's perfection of those obligations and full consent to be bound, often after confirmation through domestic constitutional processes. *Id.* art. 14(1)(c). These processes were in place and well accepted as a matter of customary international law at the time of the adoption of the U.S. Constitution, which makes explicit reference to them.

¹⁶⁸ The practice of executive agreements done without Senate advice and consent dates from the early years of the Republic. See *Am. Ins. Ass'n v. Garamendi*, 539 U.S. 396, 415 (2003). From 1939 through 2013 the United States concluded about 17,300 executive agreements, by contrast with approximately 1,100 treaties in the constitutional sense. MICHAEL JOHN GARCIA, CONG. RESEARCH SERV., RL32528, INTERNATIONAL LAW AND AGREEMENTS: THEIR EFFECT UPON U.S. LAW 5 (2014).

the constitutional sense, which has the same legal force as a statute,¹⁶⁹ the domestic legal effect of an executive agreement not expressly authorized by statute or treaty, and concluded without congressional participation, can be somewhat more difficult to discern. But under international law, it is clear that executive agreements have the same binding force as treaties;¹⁷⁰ the distinction is a purely domestic one peculiar to the United States and largely unknown to other legal systems.

In the case of an Article II, Section 2 treaty, the Senate's resolution of advice and consent provides the necessary legal authority for the agreement to operate as domestic law, as opposed to merely as an international legal compact binding the states parties to it. With respect to an executive agreement, however, which is not subject to Senate advice and consent, the legal authority for its domestic implementation must be found elsewhere in the law of the United States. An executive agreement, like every other act of the President, must be supported by domestic legal authority. Although not identified within the Constitution, executive agreements have been recognized by the courts¹⁷¹ and by extensive practice. An executive agreement has come to be understood as requiring legal authority in the form of one or more of the following: (1) congressional legislation; (2) an Article II, Section 2 treaty; or (3) the President's own constitutional powers.¹⁷²

In the environmental field, characterized by a complex web of legislative mandates, the most likely, although not necessarily the only, authority for an executive agreement is a statutory enactment. Although some executive agreements may be concluded based on express statutory authorizations or instruction, neither is necessary as a condition precedent to the legality of an executive agreement. Rather, the Executive may conclude an international agreement without Senate advice and consent so long as the agreement is consistent with existing statutory authority.¹⁷³

¹⁶⁹ U.S. CONST. art. VI; *see also* *Whitney v. Robertson*, 124 U.S. 190, 194 (1888) ("By the Constitution, a treaty is placed on the same footing, and made of like obligation, with an act of legislation."); *RESTATEMENT*, *supra* note 34, § 111; *HENKIN*, *supra* note 93, at 163–64.

¹⁷⁰ For the sake of precision, the remainder of this Article uses the generic term "international agreement" to identify all instruments binding on the United States under international law. The term "treaty" is limited to those international agreements for which the Senate's advice and consent to ratification is necessary or has been given under the U.S. Constitution Article II, Section 2. *See RESTATEMENT*, *supra* note 34, §§ 301, 303 cmt. a. The defining feature of an international agreement binding under international law is an intent by the parties to be bound by its terms. *See id.* § 301; 21 C.F.R. § 181 (2014) (State Department regulations establishing standards for identifying international agreement).

¹⁷¹ *See infra* Part III.B.

¹⁷² *See RESTATEMENT*, *supra* note 34, § 303; *HENKIN*, *supra* note 93, at 173–87. Interestingly, State Department policy also anticipates that "[t]he President may conclude an international agreement . . . subject to legislation to be adopted by the Congress, or upon the failure of Congress to adopt a disapproving joint or concurrent resolution within designated time periods." 11 U.S. DEPT OF STATE, FOREIGN AFFAIRS MANUAL § 723.2-2(B) (2006). This Article relies on neither of those theories, but instead upon the well-accepted principle that the President may enter into an executive agreement relying on the authority of existing legislation.

¹⁷³ So-called "Congressional-Executive" agreements, the form in which international trade pacts have been concluded by the United States since 1974, are conceptually distinct because they have a different legal basis from most executive agreements in the environmental area. Congress, exer-

As an attribute of our constitutional structure, the executive branch makes a unilateral determination both as to the legal form of an executive agreement and the legal authority underpinning it. To assure the existence of adequate legal authority, the Department of State has adopted a procedure known as “Circular 175.”¹⁷⁴ Pursuant to that process, the negotiation and conclusion of virtually all international agreements require the prior approval of the Secretary of State or his or her designee.¹⁷⁵ The State Department, in necessary cases, oversees an interagency consultation to solicit the views of interested and affected executive branch departments and agencies.¹⁷⁶ The request for State Department approval is accompanied by a memorandum of law setting out the constitutional and statutory authority supporting the proposed agreement and identifies additional laws or regulations that may be necessary for the agreement’s domestic implementation.¹⁷⁷ The process provides for congressional consultation in appropriate situations.¹⁷⁸ Pursuant to a legislative requirement, the Case-Zablocki Act,¹⁷⁹ the Executive is required to transmit executive agreements to Congress. The State Department is also responsible for making legal determinations as to the binding nature of international agreements, which are then collated and published.¹⁸⁰

cising its Article I, Section 8 powers, authorizes the President, by prior statute, to negotiate an international trade agreement on general terms, provided that the agreement does not enter into force until Congress adopts subsequent implementing legislation. Formerly known as “fast track” authority, the prior statutory authorization now is known as “trade promotion authority.” See RESTATEMENT, *supra* note 34, § 303 cmt. e. The President carries out and concludes the negotiations, subsequently presenting the agreement to Congress, along with implementing legislation that is typically drafted by the executive branch. *Id.* Consequently, in terms of domestic legal authority, these agreements rest on both the statutory authority prior to negotiation and the post-conclusion implementing legislation. See *id.* Some have asserted the additional need for Senate advice and consent, at least in some instances. See, e.g., Letter from Laurence H. Tribe, Professor of Law, Harvard Univ., to Senator Robert Byrd (July 19, 1994), reprinted in INSIDE U.S. TRADE, July 22, 1994, at 1 (arguing that “the legal regime put in place by the Uruguay Round [of Trade Agreements in GATT] represents a structural rearrangement of state-federal relations of the sort that requires ratification by two thirds of the Senate as a Treaty”). Nonetheless, the weight of opinion supports the conclusion that these Congressional-Executive agreements, supported by two statutory actions involving a majority vote of both chambers of the Congress, are legally the equivalent of Article II, Section 2 treaties. RESTATEMENT, *supra* note 34, § 303 cmt. e; see also *Made in the USA Found. v. United States*, 56 F. Supp. 2d 1226, 1323 (N.D. Ala. 1999), vacated on other grounds, 242 F.3d 1300 (11th Cir. 2001) (upholding constitutionality of the North American Free Trade Agreement as a Congressional-Executive agreement).

¹⁷⁴ 22 C.F.R. § 181.4 (2014); 11 U.S. DEP’T OF STATE, FOREIGN AFFAIRS MANUAL § 720 (2006); see also *Circular 175 Procedure*, U.S. DEP’T ST., <http://perma.cc/QHC2-WBBB>.

¹⁷⁵ 11 U.S. DEP’T OF STATE, FOREIGN AFFAIRS MANUAL § 724.1 (2006) (“Negotiations of treaties, or other ‘significant’ international agreements, or for their extension or revision, are not to be undertaken, nor any exploratory discussions undertaken with representatives of another government or international organization, until authorized in writing by the Secretary or an officer specifically authorized by the Secretary for that purpose.”).

¹⁷⁶ *Id.* § 724.3(a).

¹⁷⁷ *Id.* § 724.3(h)(3).

¹⁷⁸ See, e.g., *id.* §§ 722(4), 723.4, 725.1(5).

¹⁷⁹ 1 U.S.C. § 112b (2012).

¹⁸⁰ *Treaties in Force*, U.S. DEP’T ST., <http://perma.cc/QJA5-RC3E>.

B. Executive Agreements in the Courts

International agreements as a group present challenges to the judiciary that are different from those ordinarily encountered with respect to domestic legislation and many executive branch actions. Unlike domestic legislation, international agreements, both Article II, Section 2 treaties and executive agreements, originate with the President. And unlike domestic legislation, all international agreements, both Article II, Section 2 treaties and executive agreements, have a dual role that domestic legislation does not. They operate as compacts creating law between the United States and other sovereign powers party to the instrument, and they have domestic legal effect through the Supremacy Clause.¹⁸¹

This latter feature presents particular difficulties to the rule of law and our constitutional structure. Because all international agreements are subordinate to the Constitution, their domestic legal legitimacy, like other actions of the executive branch,¹⁸² is subject to review by the courts. Thus, a reviewing court has the authority to conclude that an agreement lacks the necessary legal authority. The capacity to test the legality of an international agreement is essential to assure that the President remains a creature of law, and that his authority to conclude a pact with foreign powers is not an occasion for an aggrandizement of power beyond the constraints of the domestic rule of law. The United States' federal structure and the consequent distribution of power between the federal and state governments can add additional complexities to the judicial inquiry.

From the point of view of a court, judicial review of any international agreement, whether an Article II, Section 2 treaty or an executive agreement concluded without Senate advice and consent, involves a number of unique attributes. A challenge to the domestic legal authority underlying an international agreement of necessity reaches a court only after the agreement is already in place as a matter of international law, creating binding rights and obligations for the United States and the foreign power treaty partners. Even if a court were to conclude that an international agreement lacks domestic authority, that agreement would still remain in force internationally, having already been concluded with foreign powers and having created international law between them to which the United States will be bound regardless of the court's holding. In other words, concluding that an international agreement lacks domestic legal authority does not affect the agreement's international legal status, which continues to bind the United States.¹⁸³

¹⁸¹ U.S. CONST. art. VI, § 2; *see, e.g.*, *Am. Ins. Ass'n v. Garamendi*, 539 U.S. 396, 421 (2003) (finding that the Executive's settlement of claims by executive agreement impliedly preempts state law).

¹⁸² 5 U.S.C. § 704 (2012) (noting types of agency action subject to judicial review).

¹⁸³ Concern about binding future Presidents, as opposed to the United States, is a conceptually distinct concept. Most modern multilateral agreements, including the FCCC, *see* FCCC, *supra* note 6, art. 25, and the Kyoto Protocol, *see* Kyoto Protocol, *supra* note 23, art. 27, contain denunciation or withdrawal clauses that would permit a state to terminate its obligations under the instrument. Indeed, Canada did precisely that with respect to the Kyoto Protocol. *See supra* note 66 and accompanying text. There is some domestic authority suggesting that the President's termination of an international agreement is a nonjusticiable political question. *See* *Goldwater v. Carter*,

A judicial determination that an international agreement lacks domestic legal authority in turn has serious separation of powers implications. An adverse judicial decision will likely undermine the President's ability to comply with or implement the agreement on the domestic level. In an extreme case, a judicial finding of an international agreement's absence of legal authority could compel the President to violate the pact, in turn triggering foreign relations difficulties that the President may find impossible to address because of a court order. In our domestic constitutional architecture, in which the President is the "sole organ of the nation in its external relations"—originating from the case of *United States v. Curtiss-Wright Export Corp.*¹⁸⁴—the after-the-fact nature of judicial review of international agreements raises the specter of judicial management of foreign policy from the bench.

Other attributes of the treaty power, both structural and textual, have produced a unique constitutional jurisprudence in this field. Not only does the President have the sole authority to "make Treaties,"¹⁸⁵ he is also the Commander in Chief of the Army and Navy,¹⁸⁶ the nation's diplomat in chief,¹⁸⁷ the chief executive officer of the government,¹⁸⁸ and the sole elected official exercising executive power.¹⁸⁹ At the same time he is under a duty to "take Care that the Laws be faithfully executed."¹⁹⁰ Not only the text, but also the structure of the Constitution embody a tension between the President's power effectively to represent the United States as a unitary state in foreign relations and the essential need to preserve the rule of law at home.¹⁹¹

Accordingly, doctrines specifically applicable to international agreements have arisen. In the famous case of *Missouri v. Holland*,¹⁹² Justice Holmes acknowledged the broad scope of the treaty power to meet pressing national needs, even if there might be an ancillary effect on the domestic rule of law such as, in that case, the distribution of power between the federal government and the states. Interestingly, from the point of view of the current subject matter, that case dealt with a treaty addressing migratory birds, which Justice Holmes described as "a national interest of very nearly the first magnitude."¹⁹³

444 U.S. 996, 996 (1979) (termination of mutual defense treaty with Taiwan upon recognition of People's Republic of China). Cf. Letter from Harold Hongju Koh, Legal Adviser, Dep't of State, to Hon. Ron Wyden (D-Ore.) (Mar. 6, 2012).

¹⁸⁴ 299 U.S. 304, 319 (1936).

¹⁸⁵ U.S. CONST. art. II, § 2.

¹⁸⁶ *Id.*

¹⁸⁷ *Id.* (power to appoint Ambassadors of the United States to foreign states); *id.* art. II, § 3 (power to "receive Ambassadors and other public Ministers").

¹⁸⁸ *Id.* art. II, § 1.

¹⁸⁹ *Id.*

¹⁹⁰ *Id.* art. II, § 3.

¹⁹¹ See Wirth, *supra* note 94, at 393–95 (discussing *Japan Whaling Ass'n v. Am. Cetacean Soc'y*, 478 U.S. 221 (1986)).

¹⁹² 252 U.S. 416, 433 (1920) ("It is obvious that there may be matters of the sharpest exigency for the national well being that an act of Congress could not deal with but that a treaty followed by such an act could, and it is not lightly to be assumed that, in matters requiring national action, 'a power which must belong to and somewhere reside in every civilized government' is not to be found.")

¹⁹³ *Id.* at 435.

At the time, after the end of World War I, even the most ardent conservationist would have been unlikely to describe protection of migratory birds as among the most pressing challenges confronting the nation's security. Correctly understood, Justice Holmes is really saying that the courts lack the expertise to distinguish among international agreements by reference to the importance of their subject matter, as determined by the President. More generally, and entirely understandable in context, the jurisprudence evinces a tendency for the courts to grant the executive branch a particularly high degree of deference in matters of foreign affairs.¹⁹⁴

But taking such a perspective to its logical extreme of total deference—sometimes summed up in the aphorism on behalf of the President, “*Curtiss-Wright* so I’m right”¹⁹⁵—is quite plainly unacceptable as implying an abdication of the rule of law. Accordingly, the courts have developed specially crafted doctrines for dealing with such situations. These include the desirability of harmonizing a treaty and a statute where possible, to avoid a conflict between the two and the attendant disruption of international obligations and separation of powers problems.¹⁹⁶

The Supreme Court applied this principle to an executive agreement in *Japan Whaling Ass’n v. American Cetacean Society*.¹⁹⁷ This case is an excellent example of the dynamics surrounding the conclusion of executive agreements and their treatment by the courts. Although the subject matter concerned natural resources, and consequently is particularly illustrative in the instant context, the analysis would apply equally well in other areas of the law. In *Japan Whaling*, the Supreme Court construed statutory mandates in light of a subsequent executive agreement. The existence of that agreement, and the Executive’s interpretation of the statutory mandate as reflected in it, was decisive in the Court’s rejection of arguments that a federal official had violated a statutory directive.

The multilateral International Convention for the Regulation of Whaling¹⁹⁸ created the International Whaling Commission (“IWC”), which has the author-

¹⁹⁴ See generally Thomas M. Franck, *Courts and Foreign Policy*, FOREIGN POL’Y, Summer 1991, at 66, 66 (criticizing judicial deference to political branches in foreign policymaking); Harold Hongju Koh, *Why the President (Almost) Always Wins in Foreign Affairs*, 97 YALE L.J. 1255, 1311 (1988).

¹⁹⁵ See HAROLD HONGJU KOH, THE NATIONAL SECURITY CONSTITUTION: SHARING POWER AFTER THE IRAN-CONTRA AFFAIR 94 (1990) (“Among government attorneys, Justice Sutherland’s lavish description of the president’s powers is so often quoted that it has come to be known as the “‘Curtiss-Wright so I’m right’ cite”—a statement of deference so sweeping as to be worthy of frequent citation in any government foreign-affairs brief.”); see also MICHAEL D. RAMSEY, THE CONSTITUTION’S TEXT IN FOREIGN AFFAIRS 14 (2007).

¹⁹⁶ The leading case is *Murray v. The Schooner Charming Betsy*, 6 U.S. (2 Cranch) 64, 118 (1804) (“[A]n Act of Congress ought never to be construed to violate the law of nations if any other possible construction remains.”); see also *Chew Heong v. United States*, 112 U.S. 536, 539–40 (1884) (interpreting statute to avoid conflict with earlier treaty); *United States v. Palestine Liberation Org.*, 695 F. Supp. 1456, 1468–71 (S.D.N.Y. 1988); RESTATEMENT, *supra* note 34, § 114 & reporters’ note 1 (citing additional cases construing statutes to avoid conflict with earlier treaty provisions); HENKIN, *supra* note 93, at 163–64.

¹⁹⁷ 478 U.S. 221 (1986).

¹⁹⁸ International Convention for the Regulation of Whaling, Dec. 2, 1946, 62 Stat. 1716, T.I.A.S. No. 1849, 161 U.N.T.S. 72 [hereinafter Whaling Convention].

ity to limit the harvest of various whale species. An “opt-out” procedure allows a state party to the Convention unilaterally to reject a quota, relieving itself as a matter of international law of the catch limits established by the IWC.¹⁹⁹ Domestic legislation, the Packwood Amendment to the Magnuson Fishery Conservation and Management Act²⁰⁰ and the Pelly Amendment to the Fishermen’s Protective Act of 1967,²⁰¹ is intended to reinforce and enhance the vigor of measures adopted by the IWC, which does not have the power to impose sanctions for violations. These two statutory authorities require the Secretary of Commerce to track the whaling activities of foreign nationals and to investigate potential violations of the Convention. After completing an investigation, the Secretary must promptly decide whether to certify conduct by foreign nationals that “diminishes the effectiveness”²⁰² of the Convention. After certification by the Secretary, the Packwood Amendment directs the Secretary of State to reduce the offending nation’s fishing allocation within the United States’ fishery conservation zone by at least 50%.²⁰³

The IWC established a zero quota for harvests of sperm whales in 1981.²⁰⁴ The following year, the Commission ordered a five-year moratorium on commercial whaling to begin in the 1985–86 season and to last until 1990.²⁰⁵ Japan objected to the sperm whale quotas for the years 1982 through 1984.²⁰⁶ Although Japan consequently had no international legal obligation to refrain from taking sperm whales, the potential sanction under the Pelly and Packwood Amendments from the United States threatened Japanese whaling for the 1984–85 season.²⁰⁷ After extensive negotiations, the United States and Japan concluded an executive agreement in which Japan agreed to catch no more than 400 sperm whales in each of the 1984 and 1985 seasons.²⁰⁸ In the bilateral executive agreement with the United States, Japan also agreed to refrain from commercial whaling by 1988, three years after the date specified by the IWC. In return, the United States agreed not to certify Japan under the Pelly and Packwood Amendments.

A number of environmental and conservation organizations brought suit, seeking an order directing the Secretary of Commerce to certify Japan. The Supreme Court, reversing both the district court and the court of appeals, in a 5–4 opinion concluded that the Secretary had no mandatory duty to certify in response to IWC quota violations.²⁰⁹ While Justice White’s opinion focuses on

¹⁹⁹ *Id.* art. V, para. 3.

²⁰⁰ 16 U.S.C. § 1821(e)(2) (2012).

²⁰¹ 22 U.S.C. § 1978 (2012).

²⁰² 16 U.S.C. § 1821(e)(2)(A)(i); 22 U.S.C. § 1978(a)(1)–(2).

²⁰³ 16 U.S.C. § 1821(e)(2)(B)(ii).

²⁰⁴ David A. Wirth & Douglas J. Caldwell, *Unilateral Trade-Based Measures for Protection of the Marine Environment: A Legal and Policy Perspective*, in *VALUES AT SEA: ENVIRONMENTAL ETHICS FOR THE MARINE ENVIRONMENT* 147, 151 (Dorinda G. Dallmeyer ed., 2003).

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ *Id.*

²⁰⁸ Whaling Agreement Between the United States and Japan, U.S.–Japan, Nov. 13, 1984, T.I.A.S. No. 11,070.

²⁰⁹ *Japan Whaling Ass’n v. Am. Cetacean Soc’y*, 478 U.S. 221, 241 (1986).

the construction of the Pelly and Packwood Amendments, it is clear that the Court's interpretive methodology involved considerable deference to the executive branch's interpretation in the bilateral executive agreement with Japan. Indeed, the Court specifically stated that it was harmonizing the agreement and its interpretation of the statute to give effect to both:

In enacting these Amendments, Congress' primary goal was to protect and conserve whales and other endangered species. The Secretary furthered this objective by entering into the agreement with Japan, calling for that nation's acceptance of the worldwide moratorium on commercial whaling and the withdrawal of its objection to the IWC zero sperm whale quota, in exchange for a transition period of limited additional whaling. . . .

We conclude, therefore, that the Secretary's decision to secure the certainty of Japan's future compliance with the IWC's program through the 1984 executive agreement, rather than rely on the possibility that certification and imposition of economic sanctions would produce the same or better result, is a reasonable construction of the Pelly and Packwood Amendments.²¹⁰

The executive branch's conclusion of executive agreements, binding international instruments done without Senate advice and consent, dates to the early years of the Republic and has routinely withstood legal challenges in the courts. It is consequently clear that the President has the power to enter into executive agreements binding the United States under international law. But because of the unilateral nature (from a domestic legal perspective) of the President's conclusion of an executive agreement, there are frequently questions about the nature and scope of the legal authority on which the President relies, as well as the breadth of the executive agreement power more generally. The courts have responded to these concerns as well.

Thanks to both the necessity for, and undisputed legality of, the executive agreement power, the courts have on occasion been prepared to consider long-standing congressional acquiescence to its exercise as providing the necessary legal authority for an executive agreement.²¹¹ In any event, the President's extensive plenary powers in foreign affairs²¹² can provide particularly compelling legal justification in a particular case.²¹³ The rare occasions on which the legal

²¹⁰ *Id.*

²¹¹ *See, e.g.,* Am. Ins. Ass'n v. Garamendi, 539 U.S. 396, 398 (2003) (Executive's settlement of claims by executive agreement impliedly preempts state law); Dames & Moore v. Regan, 453 U.S. 654, 655-56 (1981) (President's authority to settle international claims by executive agreement inferred from prior congressional acquiescence).

²¹² *See supra* text accompanying notes 184-90.

²¹³ *See, e.g.,* United States v. Pink, 315 U.S. 203, 229-30 (1942) (authority to settle international claims incident to recognition of foreign government inherent in President's Article II powers); United States v. Belmont, 301 U.S. 324, 330 (1937). *Medellin v. Texas*, 552 U.S. 491 (2007), is not to the contrary. The President's memorandum addressed to the state courts at issue in that case was, according to the Court, a unilateral, strictly domestic action relying on a non-self-executing Article II, Section 2 treaty and "reach[ed] deep into the heart of the State's police powers and

authority for executive agreements has been found to be lacking have little relevance from a structural perspective to the environmental field²¹⁴ or amount to gross departures from statutory constraints.²¹⁵ More commonly, courts will interpret executive agreements concluded in connection with a domestic statutory framework in a manner that harmonizes one with the other.²¹⁶

One might be concerned about the potential for the President, in an extreme case, to accomplish by international agreement what he could not obtain from Congress or the Senate, either in the form of a statute or a resolution of advice and consent to an Article II, Section 2 treaty.²¹⁷ Additionally, the legal authority for an executive agreement, at least in theory, could be undermined if Congress were to amend or repeal the underlying legislation.²¹⁸ The Framers' remedy for this concern was the Senate's constitutional prerogative of advice and consent articulated in the text of the Constitution.

But subsequent practice, particularly in the modern era, has uniformly acknowledged the legitimacy of the executive agreement as an alternative in situations in which the necessary alternative legal authority can be discerned. And it is important to recognize that this legitimacy has been earned. The exercise of the executive agreement power does not take place in a lawless vacuum. To the contrary, the power has been deployed against the backdrop of judicial review, congressional oversight and statutory supervision, and executive branch internal review and self-restraint.

compel[led] state courts to . . . set aside neutrally applicable state laws." *Id.* at 532. By contrast, an executive agreement on climate change as posited in this Article would be reciprocal, involving a flow of rights and obligations on the international level among sovereign powers, and entirely within the President's existing federal authority as delegated to him by Congress.

²¹⁴ *E.g.*, *Reid v. Covert*, 354 U.S. 1, 6 (1957) (implementing agreement on criminal matters pursuant to foreign status of forces agreements inconsistent with constitutional rights to trial by jury).

²¹⁵ *E.g.*, *United States v. Guy W. Capps, Inc.*, 204 F.2d 655, 658 (4th Cir. 1953) (executive agreement dealing with trade lacking legal authority due to express conflict with statute), *aff'd on other grounds*, 348 U.S. 296 (1955); *Swearingen v. United States*, 565 F. Supp. 1019, 1021 (D. Colo. 1983) (executive agreement on double taxation lacking in legal authority in "amending internal revenue laws by arrangements with foreign governments").

²¹⁶ *E.g.*, *Japan Whaling Ass'n v. Am. Cetacean Soc'y*, 478 U.S. 221 (1986) (interpreting bilateral agreement on whaling with Japan in light of Pelly and Packwood Amendments to Magnuson Fishery Conservation and Management Act).

²¹⁷ *Cf. Missouri v. Holland*, 252 U.S. 416 (1920) (upholding Article II, Section 2 treaty subject to Senate advice and consent against constitutional challenge when statute on virtually identical subject matter held unconstitutional).

²¹⁸ *See, e.g.*, Letter from Harold Hongju Koh, Legal Adviser, Dep't of State, to Hon. Ron Wyden (D-Ore.) (Mar. 6, 2012) (noting that, in context of Anti-Counterfeiting Trade Agreement ("ACTA")) concluded as executive agreement relying on existing statutory authority, "[a]s in the case of other international agreements, it is possible that Congress could enact subsequent changes in U.S. law that are inconsistent with U.S. international obligations. If Congress were to enact a law that put the United States in breach of its ACTA obligations, the United States could, of course, seek to convince the other parties that the ACTA should be amended to make it consistent with the change in U.S. law. Alternatively, the United States could withdraw from the ACTA, in accordance with its provisions.").

C. Executive Agreements on the Environment

The United States has concluded any number of international environmental pacts as executive agreements. Prominent among these are multilateral air pollution agreements for which the statutory authority is the Clean Air Act. These include, notably, major multilateral conventions done without express prior statutory authorization. As described below, the practice is sufficiently frequent, extensive, and well-accepted that there can be no doubt about the legality of the President's conclusion of a binding executive agreement that is consistent with domestic legislative authority.²¹⁹

1. Convention on Long-Range Transboundary Air Pollution and Protocols

In a structural setting analogous to the FCCC architecture, the fifty-six member states of the U.N. Economic Commission for Europe²²⁰ have been working since the 1970s on questions of transboundary transport of conventional air pollutants in Europe, the Caucasus, Central Asia, and North America. The cornerstone of the regime is a multilateral Convention on Long-Range Transboundary Air Pollution ("LRTAP"),²²¹ concluded in 1979. The LRTAP Convention is similar to the FCCC in structure, including seven substantive ancillary protocols as of this writing. Indeed, the FCCC and other framework-convention-plus-protocol schemes are consciously modeled on LRTAP and other analogous precedents.²²² After articulating a commitment to "limit and, as far as possible, gradually reduce and prevent air pollution,"²²³ the LRTAP Convention sets out a general framework for cooperation, consultation, and exchange of information on air pollution very similar in structure to the FCCC. Significantly, the United States concluded this major multilateral convention, understood at the time to be the centerpiece for the construction of future infrastructure on transboundary air pollution in the form of subsequent protocols, as an executive agreement, without Senate advice and consent to ratification.²²⁴

The United States is party to three of the ancillary protocols adopted under the agreement, all concluded as executive agreements. A protocol on emissions of nitrogen oxides, designed to address one of the principal precursors of acid rain, was signed in Sofia, Bulgaria in 1988.²²⁵ The protocol states an overall

²¹⁹ See Hannah Chang, *International Executive Agreements on Climate Change*, 35 COLUM. J. ENVTL. L. 337, 362–65 (2010).

²²⁰ See *Dates of Membership of the Economic Commission for Europe 56 Member Countries*, UNITED NATIONS ECON. COMMISSION FOR EUR., <http://perma.cc/5U4F-G7JQ>.

²²¹ Convention on Long-Range Transboundary Air Pollution, Nov. 13, 1979, 34 U.S.T. 3043, T.I.A.S. No. 10,541, 1302 U.N.T.S. 217 [hereinafter LRTAP].

²²² Cf. Wirth & Lashof, *supra* note 8, at 97 (noting similar structure of ozone framework convention).

²²³ LRTAP, *supra* note 221, art. 2.

²²⁴ See generally LRTAP, *supra* note 221.

²²⁵ Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Nitrogen Oxides or Their Transboundary Fluxes, Oct. 31, 1988, T.I.A.S. No. 12,086, 1593 U.N.T.S. 287.

obligation to level off emissions at 1987 levels by 1994, and enumerates precise engineering requirements for mobile and stationary sources of nitrogen oxide pollutants. Another, adopted in 1998, governs transboundary pollution from the heavy metals lead, mercury, and cadmium.²²⁶ A third, dating from 1999, is designed to combat interstate pollution from ground-level ozone, a lung irritant and precursor to photochemical smog.²²⁷ Nitrogen oxides, lead, and ground-level ozone are regulated as criteria pollutants under the Clean Air Act,²²⁸ and mercury and cadmium as toxic air pollutants under the same authority.²²⁹

2. *Minamata Convention*

Major multilateral efforts to deal with one of these pollutants concluded with the adoption of the Minamata Convention on Mercury²³⁰ in October 2013. In contrast to the LRTAP protocol on heavy metals, the Minamata Convention is intended to be global rather than regional in scope. While the motivation for the LRTAP Convention is primarily to minimize interstate transport, the Minamata Convention directly targets domestic extraction, production, use, emissions, releases, storage, disposal, and treatment of contaminated sites.²³¹ Specifically, the Convention calls for states parties to control and reduce airborne mercury emissions to the air from particular industrial sources, to reduce or eliminate the use of mercury in enumerated products and industrial processes, to curtail mercury mining, and to ensure the environmentally sound storage and disposal of mercury and mercury-containing wastes.²³²

While the Minamata Convention, like LRTAP, does not expressly anticipate subsequent protocols, in all other particulars it is a major, multilateral convention with the features characteristic of a modern multilateral framework convention. The Minamata Convention has provisions addressing information exchange, reporting, settlement of disputes, and procedures for amendment of the Convention,²³³ as well as those for adoption and amendment of annexes containing important obligations, such as the products and industrial processes to which the agreement applies.²³⁴ The Convention, like other major multilateral

²²⁶ Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Heavy Metals, June 24, 1998, T.I.A.S. No. 12,966, 2237 U.N.T.S. 4.

²²⁷ Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone, Nov. 30, 1999, T.I.A.S. No. 13,073, 2319 U.N.T.S. 81; *see also* Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution Concerning the Control of Emissions of Volatile Organic Compounds or Their Transboundary Fluxes, Nov. 18, 1991, 2001 U.N.T.S. 187 (signature but no acceptance by United States).

²²⁸ 42 U.S.C. §§ 7408–7410 (2012).

²²⁹ *Id.* § 7412.

²³⁰ Minamata Convention on Mercury, Oct. 10, 2013 [hereinafter Minamata Convention], <http://perma.cc/9F8J-44W3> (not in force). *See generally* Tseming Yang, *The Minamata Convention on Mercury and the Future of Multilateral Environmental Agreements*, 45 *Envtl. L. Rep.* (Envtl. Law Inst.) 10,064 (Jan. 2015).

²³¹ Minamata Convention, *supra* note 230, arts. 3–5, 7–12.

²³² *Id.*

²³³ *E.g.*, *id.* arts. 17, 21, 25–26.

²³⁴ *Id.* art. 27.

environmental agreements, also establishes the institutional infrastructure for periodic meetings of a conference of the parties, a professional secretariat, implementation and compliance, financial assistance to developing countries, capacity building, technical assistance, and technology transfer.²³⁵

Consistent with the Convention's status in domestic law as an executive agreement, Secretary of State John Kerry signed an instrument of acceptance on behalf of the United States within days of its adoption.²³⁶ According to the State Department, "[t]he United States has already taken significant steps to reduce the amount of mercury generated and released into the environment, and can implement Convention obligations under existing law."²³⁷

3. Stratospheric Ozone Depletion

As demonstrated by the examples above, the executive branch enters into many executive agreements that rely on existing statutory authority, but are neither expressly authorized by statute nor approved by Congress after the fact. In such cases, the authority to enter into the agreement with a foreign power is assumed to be implied, and the obligations in any resulting agreement may not exceed the statutory boundaries. It is also possible, although not necessary, for Congress expressly to authorize the conclusion of an international agreement, in effect pre-authorizing the international compact from a legal point of view.²³⁸

Stratospheric ozone depletion is a problem similar to climate change, in that the gases of concern are "well-mixed," meaning evenly distributed over the planet. As a consequence, emissions anywhere on Earth affect everyone, everywhere. By contrast with the climate issue, however, all the pollutants of concern in the case of stratospheric ozone depletion are of anthropogenic ori-

²³⁵ *Id.* arts. 13–15, 20, 23–24.

²³⁶ Minamata Convention, United States of America Acceptance, Oct. 2013, <http://perma.cc/F6SH-PT6Y>. Ratification, acceptance, approval, and accession are all actions by which a state indicates its formal intention to accept the obligations in an international agreement. In the case of a multilateral agreement such as the Minamata Convention, this is ordinarily done by delivery of a written instrument to the depositary. Vienna Convention on the Law of Treaties, *supra* note 34, arts. 2(1)(b), 14; *cf. supra* note 167 (addressing signature and ratification process in Constitution and customary international law). "Acceptance" and "accession" have the same international legal effect as ratification—perfection of the legal obligations in an international agreement—but do not imply the potential preliminary step of signature. "Accession" often refers to the process by which a state becomes party to an international agreement that is already in force, frequently after the period for signature—typically a year after formal adoption—has closed. The terms on which states may sign, ratify, accept, approve, or accede to a multilateral agreement are routinely set out in the instrument itself as part of the "final clauses" that also address such questions as requirements and timing of entry into force. *E.g.*, FCCC, *supra* note 6, arts. 19–26. U.S. practice in the case of international instruments concluded as executive agreements tends to favor depositing instruments of acceptance, as opposed to signature followed by subsequent ratification. In any event, the international legal effect of acceptance is the same as ratification, i.e., the state concerned is fully bound under international law by the obligations in the agreement.

²³⁷ *Minamata Convention on Mercury*, U.S. DEP'T ST., <http://perma.cc/G4Z6-CKKD>.

²³⁸ *Cf. supra* note 173 (Congressional-Executive agreements on trade). In distinct contrast to Congressional-Executive agreements, an agreement anticipated by section 157 of the Clean Air Act and similar prior authorizations does not anticipate subsequent implementing legislation, but instead could be implemented purely by executive branch action, as in a regulation or rulemaking.

gin. In a provision somewhat analogous in form to section 115,²³⁹ the 1977 amendments to the Clean Air Act added section 157, which formerly directed EPA to respond by regulation if there was reason to believe that human activities that damage the ozone layer might endanger public health and the environment.²⁴⁰ In 1978, EPA and the Food and Drug Administration (“FDA”) prohibited nonessential uses of ozone-destroying chlorofluorocarbons (“CFCs”) such as spray aerosol propellants as a matter of domestic U.S. regulation.²⁴¹ A number of other countries, including Canada and the Nordic nations, enacted similar controls on nonessential aerosol uses of CFCs. By contrast, the European Community (now the European Union) established a limit, considerably above then-existing levels, on total CFC production.²⁴²

UNEP initiated a multilateral process for addressing this global issue in the late 1970s and early 1980s. Early in this process, governments negotiating under UNEP auspices made an explicit decision to bifurcate this undertaking. Similar to the FCCC, one product was to be a “framework” multilateral convention. Ancillary agreements, or “protocols” containing substantive regulatory measures, would be appended to this convention. The ozone umbrella treaty evolved into the Vienna Convention for the Protection of the Ozone Layer,²⁴³ concluded in March 1985, which contains no regulatory requirements, but instead is designed to encourage multilateral cooperation and exchange of information. Negotiations on the more substantive CFC protocol broke down, primarily due to differences in regulatory approaches between states like the United States that had eliminated aerosol uses and the European Community, which had established across-the-board controls on production regardless of use.²⁴⁴

²³⁹ 42 U.S.C. § 7415 (2012); *see also infra* Part III.C.4.

²⁴⁰ “If . . . any substance, practice, process, or activity may reasonably be anticipated to affect the stratosphere, especially ozone in the stratosphere, and such effect may reasonably be anticipated to endanger public health or welfare, the [EPA] Administrator shall promptly promulgate regulations respecting the control of such substance, practice, process, or activity” Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 157, 91 Stat. 685, 729–30 (1977). In the Clean Air Act Amendments of 1990, section 157 was repealed and replaced with a new and considerably more detailed statutory directive tracking the Montreal Protocol, which now provides the statutory authority for that instrument. 42 U.S.C. §§ 7671–7671q.

²⁴¹ 21 C.F.R. § 2.125 (2014) (FDA rule prohibiting use of certain CFCs as propellants); 40 C.F.R. § 762 (1994) (EPA final rule prohibiting most manufacture, processing, and distribution in commerce of CFCs) (deleted as obsolete after 1990 amendments to Clean Air Act implementing Montreal Protocol, Chemical Substances; Deletion of Certain Chemical Regulations; Technical Amendments to the Code of Federal Regulations, 60 Fed. Reg. 31,917, 31,919 (June 19, 1995) (to be codified in scattered parts of 40 C.F.R.)).

²⁴² *See* THOMAS B. STOEL, JR. ET AL., FLUOROCARBON REGULATION (1980).

²⁴³ Vienna Convention for the Protection of the Ozone Layer, Mar. 22, 1985, 1513 U.N.T.S. 293.

²⁴⁴ This history provided the explicit model for the characterization of the FCCC as a “framework” convention, a designation not expressly contained in the text of LRTAP, which is an earlier precursor. *See generally* Wirth & Lashof, *supra* note 8. The ozone example was also referenced during the FCCC negotiations for the proposition that a framework convention ought not to contain substantive regulatory measures. *See supra* text accompanying note 21 (discussing FCCC art. 4(2)(a)–(b), concerning returning Annex I Parties’ emissions to 1990 levels by the year 2000). Tellingly, at least some states, including the United States, advocated a mandatory CFC protocol to the ozone framework convention, meaning that states would have been obliged to become party to both the framework convention and the CFC protocol together, if at all.

Renegotiation of the protocol in late 1986 after a scheduled one-year "cooling off" period coincided with an upsurge in scientific and public concern about a seasonal, continent-sized thinning or "hole" in the ozone layer over Antarctica. By this time, it had become apparent that the limited U.S. ban on a small number of CFC uses was insufficient to address grave threats to the integrity of the stratospheric ozone layer. Accordingly, after being prodded with a lawsuit,²⁴⁵ the Executive Branch in effect chose UNEP's multilateral forum as the venue for crafting additional domestic and international policy responses for further mitigating stratospheric ozone depletion.

Significantly, at least from the beginning of the reconstituted negotiations in 1986, it was assumed that a rule promulgated pursuant to the then-existing Clean Air Act subsequent to the conclusion of the international instrument would be the vehicle for domestic implementation of the United States' international obligations.²⁴⁶ EPA proposed its implementing rule on December 14, 1987.²⁴⁷

Although not necessarily legally required because of the existence of prior authorizing legislation in the form of section 157 of the Clean Air Act, the Executive Branch submitted both the Protocol and the framework Vienna Convention to the Senate, which unanimously gave its advice and consent to ratification in March 1988.²⁴⁸ Nonetheless, in its final rule implementing the Montreal Protocol in August of that year, the Agency relied on section 157, enacted more than a decade earlier, as the legal authority for its implementing regulation, mentioning U.S. ratification of the Protocol only in passing.²⁴⁹ But that action was taken in response to political considerations, not necessarily because it was essential from a legal point of view. EPA had already acknowledged that section 157 provided the necessary legal authority for conclusion of the Protocol by the United States without congressional input.²⁵⁰ EPA's regula-

²⁴⁵ Order, Natural Res. Def. Council, Inc. v. Thomas, No. 84-3587 (D.D.C. May 17, 1986) (consent decree establishing schedule for regulatory action on CFCs).

²⁴⁶ See generally David A. Wirth, *Public Participation in International Processes: Environmental Case Studies at the National and International Levels*, 7 COLO. J. INT'L ENVTL. L. & POL'Y 1 (1996).

²⁴⁷ Protection of Stratospheric Ozone, 52 Fed. Reg. 47,489 (proposed Dec. 14, 1987) (to be codified at 40 C.F.R. pt. 82) (proposed regulation for implementing Montreal Protocol under Clean Air Act Section 157(b)).

²⁴⁸ See 134 CONG. REC. 3718 (1988) (Senate resolution of advice and consent to ratification of Montreal Protocol); see also 132 CONG. REC. 17,560 (1986) (Senate resolution of advice and consent to ratification of Vienna Convention).

²⁴⁹ Protection of Stratospheric Ozone, 53 Fed. Reg. 30,566, 30,566 (Aug. 12, 1988) (to be codified at 40 C.F.R. pt. 82) (final regulation implementing Montreal Protocol).

²⁵⁰ According to State Department policy, a choice between concluding an international agreement as, on the one hand, a treaty in the constitutional sense and, on the other, an executive agreement should be determined by consideration of the following eight factors:

- (1) The extent to which the agreement involves commitments or risks affecting the nation as a whole;
- (2) Whether the agreement is intended to affect state laws;
- (3) Whether the agreement can be given effect without the enactment of subsequent legislation by the Congress;
- (4) Past U.S. practice with respect to similar agreements;
- (5) The preference of the Congress with respect to a particular type of agreement;

tion continued to provide the domestic authority for implementing the Protocol until the Clean Air Act Amendments of 1990 repealed section 157, and replaced it with a new, and considerably more detailed, statutory directive tracking the Montreal Protocol.²⁵¹

4. *Clean Air Act Section 115*

Section 115 of the Clean Air Act²⁵² presents yet a different situation, and one which has recently received attention in the policy debate,²⁵³ in the professional literature,²⁵⁴ and even in the popular press.²⁵⁵

In part because of increasing concern about the problem of sulfur pollution originating in the United States with impacts in Canada, in the Clean Air Act Amendments of 1977 Congress adopted a new section 115 to the statute,²⁵⁶ entitled “International Air Pollution.” The provision anticipates unilateral action by the United States in response to three conditions precedent or statutory

- (6) The degree of formality desired for an agreement;
- (7) The proposed duration of the agreement, the need for prompt conclusion of an agreement, and the desirability of concluding a routine or short-term agreement; and
- (8) The general international practice with respect to similar agreements.

11 U.S. DEP’T OF STATE, FOREIGN AFFAIRS MANUAL § 723.3 (2006). Some of these factors are policy and prudential considerations not legal in nature, and consequently are not relevant to the determination of the legality of an executive agreement. *Cf. supra* Parts III.A–B.

²⁵¹ Clean Air Act Amendments of 1990, Pub. L. No. 101-549, §§ 601–602, 104 Stat. 2399, 2648–70 (1990) (adding new Title VI to Clean Air Act, §§ 601–618, codified at 42 U.S.C. §§ 7671–7671q (2012)).

²⁵² 42 U.S.C. § 7415.

²⁵³ *See, e.g.*, Letter from Seven Law Professors to Rep. Henry A. Waxman and Sen. Sheldon Whitehouse (Mar. 21, 2014) (on file with the Harvard Law School Library) (advocating “Clean Air Act Section 115 as a Regulatory Tool to Address Climate Change”); Inst. for Policy Integrity, N.Y. Univ. Sch. of Law, Petition for Rulemakings and Call for Information under Section 115, Title VI, Section 111, and Title II of the Clean Air Act to Regulate Greenhouse Gas Emissions (Feb. 19, 2013), <http://perma.cc/A7SM-FE4M> (citizen petition requesting EPA to “[m]ake a formal finding that all the prerequisites for action to control international air pollution under Section 115 have been satisfied for greenhouse gases”); Stephen Siciliano, *California Paving Way for U.S. on Reducing Carbon Emissions*, BLOOMBERG BNA (Mar. 18, 2014), <http://perma.cc/UKL2-89FW> (reporting Mary Nichols, chairwoman of the California Air Resources Board, as stating that “EPA can, and should, use Section 115 authority to tie the national carbon pollution program into commitments that negotiating partners will seek in Paris, where a global greenhouse gas treaty process will begin in 2015”).

²⁵⁴ *See, e.g.*, David R. Baake, *International Climate Action Without Congress: Does § 115 of the Clean Air Act Provide Sufficient Authority?*, 44 *Env’tl. L. Rep.* (Env’tl. Law Inst.) 10,562 (July 2014); Hannah Chang, *Cap and Trade Under the Clean Air Act?: Rethinking § 115*, 40 *Env’tl. L. Rep.* (Env’tl. Law Inst.) 10,894 (Sept. 2010); Roger Martella & Matthew Paulson, *Regulation of Greenhouse Gases Under Section 115 of the Clean Air Act*, 43 *Daily Env’t Rep.* (BNA) B-1 (Mar. 9, 2009); *Is This Short Provision in the Clean Air Act the Best Means to Regulate Greenhouse Gases?*, ENVTL. F., Nov.–Dec. 2013, at 46–51 (contribution from four practitioners and academics with respect to applicability of Clean Air Act Section 115 to domestic greenhouse gas regulation); Nathan Richardson et al., *Greenhouse Gas Regulation Under the Clean Air Act: Structure, Effects, and Implications of a Knowable Pathway* (Resources for the Future Discussion Paper 10-23, 2010), <http://perma.cc/BBX6-C3G7>.

²⁵⁵ *See, e.g.*, Zoë Schlanger, *Why It’s Already Legal for Obama to Take on Climate Change Without Congress*, NEWSWEEK (Aug. 28, 2014), <http://perma.cc/9Q7M-8KN9>.

²⁵⁶ 42 U.S.C. § 7415.

“triggers:” (1) “a report[], survey[] or stud[y] from any duly constituted international agency;”²⁵⁷ (2) a finding of “endangerment” by the EPA Administrator, concluding that he or she “has reason to believe that any air pollutant or pollutants emitted in the United States cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare in a foreign country or whenever the Secretary of State requests him to do so with respect to such pollution which the Secretary of State alleges is of such a nature;” and (3) a finding of “reciprocity” by the EPA Administrator meaning that the affected state has given the United States “essentially the same rights with respect to the prevention or control of air pollution occurring in that country as is given that country by [section 115].”²⁵⁸ Upon satisfaction of all three conditions, the Administrator “shall give formal notification thereof to the Governor of the State in which such emissions originate,”²⁵⁹ which in turn requires the affected states to respond in a manner that eliminates the endangerment identified in the Administrator’s notice.

In January 1981, in the waning hours of the Carter Administration, then-EPA Administrator Douglas Costle and Secretary of State Edmund Muskie signed letters purporting to make the endangerment finding.²⁶⁰ In subsequent litigation, states and environmental organizations asserted that the Costle and Muskie findings triggered a non-discretionary duty on the part of the Reagan Administration to take action to abate the sources of acid rain.²⁶¹ The United States Court of Appeals for the District of Columbia Circuit, in an opinion written by then-Circuit Judge Antonin Scalia, concluded that the purported findings were procedurally defective for failure to have been preceded by notice and an opportunity for comment as would be required for a rulemaking conducted under the Administrative Procedure Act.²⁶²

Having lost on the theory that the Costle and Muskie findings satisfied the statutory requirements, the Province of Ontario, along with a number of U.S. states and environmental organizations, petitioned EPA to initiate such a rulemaking.²⁶³ In a second opinion, the D.C. Circuit held that, because the Agency could not correlate the source of emissions in the United States with

²⁵⁷ At the time of the adoption of section 115, the term “duly constituted international agency” was understood to include the International Joint Commission, a bilateral international organization created by the Boundary Waters Treaty of 1909, U.S.-Gr. Brit., Jan. 11, 1909, 36 Stat. 2448. Article IX of the Treaty creates a channel through which either of the parties, the United States and Canada, can submit to the International Joint Commission a “reference,” in response to which the Commission shall “examine into and report upon the facts and circumstances of the particular questions and matters referred, together with such conclusions and recommendations as may be appropriate.” See generally INT’L JOINT COMM’N, <http://perma.cc/PT9A-L6XR> (International Joint Commission website).

²⁵⁸ 42 U.S.C. § 7415.

²⁵⁹ *Id.* § 7415(b).

²⁶⁰ See *New York v. Thomas*, 613 F. Supp. 1472, 1486–93 (D.D.C. 1985) (reproducing the two letters), *rev’d*, 802 F.2d 1443 (D.C. Cir. 1986), *cert. denied*, 482 U.S. 919 (1987).

²⁶¹ *Id.*

²⁶² *Thomas v. New York*, 802 F.2d 1443 (D.C. Cir. 1986), *cert. denied*, 482 U.S. 919 (1987).

²⁶³ See *Her Majesty the Queen in Right of Ontario v. EPA*, 912 F.2d 1525, 1529–30 (D.C. Cir. 1990).

adverse impacts in Canada, EPA was under no legal duty to commence such a proceeding.²⁶⁴

Section 115 is a unilateral requirement contained in U.S. legislation. Around the time it was enacted, the United States was also engaged in bilateral discussions with Canada over the issue of acid rain. In 1980, the two states concluded a “Memorandum of Intent”²⁶⁵ which, contrary to the implication of the instrument’s title, is a binding agreement concluded as an executive agreement by the United States. Among other things, the parties agreed to “develop a bilateral agreement which will reflect and further the development of effective domestic control programs and other measures to combat transboundary air pollution.”²⁶⁶

The contemplated agreement, the bilateral Air Quality Agreement,²⁶⁷ was not actually concluded until 1991, and its context strongly suggests that it was not viewed by the Executive Branch as a serious vehicle for environmental policymaking on the national and international levels. First, the agreement was concluded only after the enactment of the 1990 amendments to the Clean Air Act,²⁶⁸ which for the first time set out a domestic regulatory structure specifically for combatting acid rain: a nationwide sulfur trading scheme to control the precursors to acid rain, a long-range transport problem not only internationally with respect to Canada, but also domestically within the United States.²⁶⁹ Significantly, for the United States, the Air Quality Agreement was done as an executive agreement and not as a treaty in the constitutional sense.

Second, the text of the 1991 agreement limits reductions in emissions of acid rain precursors to levels required by the domestic statutory and regulatory program. Significantly, the obligations in this agreement are identical to the reduction goals in the underlying statute, the Clean Air Act. Consistent with its form as an executive agreement, congressional participation in the conclusion of the agreement was not required, presumably because the agreement did not exceed existing statutory authority.

Finally, the decision to treat the bilateral instrument as an executive agreement, without formal participation by the legislature, eliminated the possibility that Congress or, for that matter, the Government of Canada might utilize the agreement to address the need for additional reductions necessitated by international considerations that may not have been adequately addressed in the United States’ legislative process. Had they been greater, in that the promises undertaken in the agreement exceeded the existing statutory authority, in all likelihood the agreement would have been submitted to the Senate for its ad-

²⁶⁴ *Id.*

²⁶⁵ Memorandum of Intent Between the Government of the United States of America and the Government of Canada Concerning Transboundary Air Pollution, U.S.-Can., Aug. 5, 1980, T.I.A.S. No. 9856, 32 U.S.T. 2521.

²⁶⁶ *Id.* at 2524.

²⁶⁷ Agreement on Air Quality, U.S.-Can., Mar. 13, 1991, T.I.A.S. No. 11,783.

²⁶⁸ 42 U.S.C. §§ 7651–7651o (2012).

²⁶⁹ *See id.* § 7426 (interstate air pollution).

vice and consent under Article II of the Constitution. The Senate's approval would then have supplied the legal authority lacking in the statute.

Section 115 of the Clean Air Act can be interpreted as affirmative authority for the United States to enter into an executive agreement on climate, provided all three of the section's predicate conditions are met. There are highly plausible arguments that those conditions either have been or will be met. First, the IPCC's periodic reports would presumably qualify as "a report[], survey[] or stud[y] from any duly constituted international agency." Second, the President has already made an "endangerment" finding,²⁷⁰ which has withstood judicial review.²⁷¹ Third, the requirement for reciprocity would be expected to be satisfied by the reciprocal obligations undertaken by other states in Paris at the end of this year, for which the "protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties"²⁷² expected to be adopted there would be per se evidence of the acceptance by parties to that agreement of reciprocal obligations. For those states that had not become party to the agreement anticipated by the Paris meeting, the United States could negotiate reciprocal arrangements on a bilateral basis. Finally, the constraint identified in *Her Majesty the Queen in Right of Ontario v. EPA*,²⁷³ which requires correlating sources and impacts to address the regional problem of long-range transport of precursors to acid precipitation before giving notice to the states, would presumably be inapplicable to global warming, in which the gases of concern are globally well-mixed.

The analysis in this Article so far demonstrates that the United States has the authority to enter into binding international legal commitments that extend to, but do not exceed, existing statutory authority. That includes, but is not limited to, regulatory undertakings that have already been taken under the Clean Air Act, such as EPA's post-*Massachusetts* rulemakings concerning vehicle fuel efficiency that have already withstood judicial review and proposals for the regulation of GHGs from new and existing stationary sources. And the Supreme Court's dicta in *AEP* and *UARG* are clearer indications of the judiciary's interpretation of the relevant statutory authority than is often available before the conclusion of many executive agreements.

Section 115 extends the reach of that authority by contemplating—as did the now-repealed section 157 related to stratospheric ozone—the congressionally preapproved *enhancement* of that statutory authority provided the statutory conditions have been met. In the case of the Montreal Protocol, that authority was exercised by the Executive Branch to craft and accept obligations that were much more ambitious and aggressive than any regulation already in place in the United States. Similarly, provided the requisite findings have been made, the President arguably *already* has the authority to put in place a cap-

²⁷⁰ See Endangerment Finding, *supra* note 127.

²⁷¹ *Coal. for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 117 (D.C. Cir. 2012).

²⁷² Durban Platform Ad Hoc Working Group Establishment, Dec. 1/CP.17, *supra* note 68.

²⁷³ 912 F.2d 1525 (D.C. Cir. 1990).

and-trade system, or even a carbon- or energy-based tax, based on the congressional delegation in section 115.

If the conditions precedent identified in section 115 were to be satisfied, they “shall be deemed to be a finding under section 7410(a)(2)(H)(ii) of [Title 42] which requires a plan revision”²⁷⁴ The “plan” referred to in the legislation includes a state implementation plan designed to implement a National Ambient Air Quality Standard (“NAAQS”) established by EPA to protect public health and welfare. But even at the time of section 115’s enactment, it was understood that the regulatory vehicle of an ambient standard designed to protect health and welfare from local air pollution would be unlikely to address the problems of long-range transport associated with acid rain. As demonstrated by one trenchant analysis, the use of the term “plan” in section 115 need not be confined to one designed to implement an ambient air quality standard, and “the ‘air pollutant’ discussed in § 115 need not be one for which NAAQS have been established.”²⁷⁵ Significantly, the President’s Clean Power Plan relies on state-by-state implementation through the preparation of individual state plans, which under this theory could well meet the requirements of a “plan” for the purposes of section 115.

D. Domestic Choice of Instrument and the Multilateral Climate Regime

All of these developments will come together in Paris at the end of 2015, for the United States as for all other countries on the planet. In its INDC released at the end of March 2015, the United States articulated a clear, economy-wide emission-reduction (mitigation) goal, and identified the domestic legal authorities that will contribute to achieving that target.²⁷⁶ But unlike the European Union and Norway, the United States has refrained from identifying its mitigation contribution as legally binding in whole or in part, and has given every indication that it is not intended as legally binding.²⁷⁷

As outlined in this Article, the next logical inquiry is whether legal authority other than new legislation or Senate advice and consent to ratification might support that commitment.²⁷⁸ While the answer to the question may not be simple, the legal landscape has changed significantly as a result of *Massachusetts v. EPA* and that case’s regulatory and judicial progeny.

²⁷⁴ 42 U.S.C. § 7415(a).

²⁷⁵ Chang, *supra* note 254, at 10,896.

²⁷⁶ See generally U.S. INDC, *supra* note 83.

²⁷⁷ See *supra* text accompanying notes 89–91.

²⁷⁸ The Senate Foreign Relations Committee report on the resolution of ratification for the FCCC expressed the expectation that future actions that would require legally binding emission reductions would require the Senate’s advice and consent. S. EXEC. REP. NO. 102-55, at 14 (1992). This is a preference expressed by a committee of the Senate, and not a formal reservation to the full Senate’s resolution of advice and consent, see RESTATEMENT, *supra* note 34, § 303 cmt. d & reporters’ note 4. The full Senate’s resolution of advice and consent to ratification of the Framework Convention does not contain such a condition, or any others for that matter. 138 CONG. REC. 33527 (1992) (Senate resolution of advice and consent to Framework Convention). See Chang, *supra* note 219, at 348. See also *supra* note 167 (discussing legal effect of Senate resolution of advice and consent).

Based on the authority of the Clean Air Act, the United States has already adopted and finalized emissions standards for GHGs for mobile sources for model years 2014 to 2018.²⁷⁹ Those rules have withstood legal challenge in the federal courts.²⁸⁰ The regulations will result in a reduction of 960 million metric tons in emissions of carbon equivalents.²⁸¹ Subsequent rules based on the same legal authority tightened the standards for light-duty vehicles, with reductions expected of two billion tons over the lifetime of 2017 to 2025 model year vehicles.²⁸² Complementary regulations addressing medium- and heavy-duty vehicles took effect in 2014.²⁸³ As demonstrated by these numbers, the actual and projected emissions consequences resulting from these actions can be and have been quantified. Moreover, EPA has announced that it intends to propose additional measures to address methane pollution, a potent GHG, again using existing authority.²⁸⁴

With respect to stationary power plants, proposed rules scheduled to be finalized in 2015 from new²⁸⁵ and existing²⁸⁶ power plants are critical pieces of the President's CAP. The Clean Power Plan, addressing existing facilities, will reduce carbon emissions from this sector by 30% from 2005 levels by 2030, while starting to make progress toward meaningful reductions in 2020.²⁸⁷ While not entirely certain because the administrative actions are still proposals as of this writing, the Supreme Court's jurisprudence has preliminarily tended to confirm EPA's broad authority to regulate GHG emissions from power plants.²⁸⁸

The CAP does not expressly specify how the President expects to achieve the 2020 target of an economy-wide reduction in GHG equivalents of 17% by reference to the base year of 2005,²⁸⁹ nor does the China deal in identifying an even more ambitious goal. The U.S. INDC provides somewhat more information relative to the same goal identified in the bilateral arrangement with China—a reduction of 26–28% by 2025 as measured against a baseline of 2005—but, under the category “Sectors,” states merely that “[t]he U.S. target

²⁷⁹ Tailpipe Rule, *supra* note 129, at 25,324.

²⁸⁰ *See, e.g.*, *Coal. for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 126 (D.C. Cir. 2012).

²⁸¹ Tailpipe Rule, *supra* note 129, at 25,397.

²⁸² 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62,624, 62,627 (Oct. 15, 2012) (to be codified at scattered parts of 40 and 49 C.F.R.).

²⁸³ Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, 76 Fed. Reg. 57,106, 57,108 (Sept. 15, 2011) (to be codified at scattered parts of 40 and 49 C.F.R.).

²⁸⁴ *See, e.g.*, EPA, FACT SHEET: EPA'S STRATEGY FOR REDUCING METHANE AND OZONE-FORMING POLLUTION FROM THE OIL AND NATURAL GAS INDUSTRY (2015), <http://perma.cc/5KUG-WAB8>; Press Release, The White House, FACT SHEET: Administration Takes Steps Forward on Climate Action Plan by Announcing Actions to Cut Methane Emissions (Jan. 14, 2015), <https://perma.cc/Y85R-EZ8Q>.

²⁸⁵ Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 1430 (proposed Jan. 8, 2014) (to be codified at scattered parts of 40 C.F.R.).

²⁸⁶ Carbon Pollution Emission Guidelines for Existing Stationary Sources, *supra* note 141.

²⁸⁷ FACT SHEET: Clean Power Plan Framework, *supra* note 142.

²⁸⁸ *See supra* Part II.E.

²⁸⁹ *See supra* text accompanying notes 146–47.

covers all IPCC sectors.”²⁹⁰ By comparison, the European Union INDC provides a detailed breakdown by sector, including energy, manufacturing, agriculture, waste, and land use.²⁹¹ Moreover, there is some disagreement as to whether these goals are likely to be achieved.²⁹² But whether or not that is possible, once these talismanic numbers are disaggregated into their component pieces, it becomes possible to make some significant observations about the capacity of the United States to deliver on major reduction obligations in an internationally legally binding mode.

In one important sector, motor vehicles, major regulatory initiatives are already in place and have survived judicial challenge. In a second crucial sector, power plants, regulations are currently proposed and expected to be finalized before Paris.²⁹³ The President could in good faith rely upon the Supreme Court’s positive indications with respect to section 111, reiterated twice even if in a tentative mode, as authority to conclude a binding executive agreement calling for GHG emission reductions in the power sector. This is more judicial guidance with respect to interpretation of the statutory authority underlying an executive agreement than is frequently available at the time such an agreement is concluded.

Although not all regulatory in nature, the CAP also contains a number of other quantifiable goals, all within the President’s powers: (1) doubling renewable energy generation by 2020 by reference to a similar accomplishment in the President’s first term;²⁹⁴ (2) accelerating clean energy permitting on federal lands to a total of 20 gigawatts by reference to 2012;²⁹⁵ (3) implementing a renewable fuel standard, to ensure that transportation fuel sold in the United States contains a minimum volume of fuel from renewable resources;²⁹⁶ and (4) new energy-efficiency standards for appliances and federal buildings.²⁹⁷ Other goals, although less obvious in producing quantifiable emission reductions, include the following: (1) providing federal loan guarantees to advanced fossil

²⁹⁰ U.S. INDC, *supra* note 83, at 3. The U.S. INDC references EPA’s 1990 to 2013 Greenhouse Gas Inventory Report, *see U.S. Greenhouse Gas Inventory Report: 1990–2013*, EPA, <http://perma.cc/7DJ5-U7AT>, which documents a 9% reduction in 2013 by reference to 2005. The INDC itself states that “[t]he United States has already undertaken substantial policy action to reduce its emissions, taking the necessary steps to place us on a path to achieve the 2020 target of reducing emissions in the range of 17 percent below the 2005 level in 2020,” a pledge dating from 2009. U.S. INDC, *supra* note 83, at 1. *See also supra* note 59 and accompanying text (U.S. submission to Annex I to Copenhagen Accord). As of this writing, the Executive Branch has not publicly released an analysis correlating the 26–28% economy-wide goal articulated in its INDC with the specific domestic policy actions.

²⁹¹ EU INDC, *supra* note 89, at 3–4.

²⁹² *See, e.g.,* Burtraw & Woerman, *supra* note 84, at 17–18.

²⁹³ Regulations for new sources and existing sources under the Clean Power Plan are expected to be finalized in June 2015. Presidential Memorandum—Power Sector Carbon Pollution Standards (June 25, 2013), <http://perma.cc/5E76-TJDQ> (requesting final regulations for modified, reconstructed, and existing power plants by 2015); *Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units*, FED. REG., <https://perma.cc/PV73-8MTF> (presenting January 2015 as date for final rule for new stationary sources).

²⁹⁴ CLIMATE ACTION PLAN, *supra* note 2, at 6–7.

²⁹⁵ *Id.* at 7.

²⁹⁶ *Id.* at 8.

²⁹⁷ *Id.* at 9.

energy projects;²⁹⁸ (2) reducing barriers to investment in energy efficiency;²⁹⁹ (3) encouraging energy efficiency in commercial and industrial buildings;³⁰⁰ and (4) conservation and sustainable management of forests.³⁰¹

The President already has the authority, either expressly under the Clean Air Act and other legislative authority, or under his own constitutional powers such as that of Chief Executive,³⁰² to take every one of the initiatives identified in this Part. It consequently follows as a legal matter that those same initiatives can be confirmed on the international level in binding legal obligations concluded by the President without either Senate advice and consent or the need for additional legislation. And the legal authority for him to do so in what are likely the most controversial sectors—GHG emissions from vehicles and power plants—is either already in place or, in the case of power plants, approvingly referenced in general terms twice over by the Supreme Court even before those rules have been issued in final form.

Internationally legally binding sectoral commitments—understood as a component of a larger, nationwide quantified target such as that identified in the U.S. INDC—may look different from the now-traditional economy-wide emission reductions contained in a single number, as listed in Annex B to the Kyoto Protocol. But the FCCC process, and even the United States itself, has acknowledged that that formulation may not be appropriate in all cases.³⁰³ The Lima Call for Climate Action³⁰⁴ specifically anticipates a variety of formulations. For instance, although it may be difficult for the United States to agree to a “hard” or binding economy-wide target, such a commitment is clearly possible on the part of the United States in particular sectors such as power plants and motor vehicles. Additionally, it might be possible to phrase binding obligations in the form of additional sector-specific binding best-practice standards, as with respect to end-use energy efficiency or land use.

²⁹⁸ *Id.* at 7.

²⁹⁹ *Id.* at 9.

³⁰⁰ *Id.* at 9–10.

³⁰¹ *Id.* at 11. The CAP also references a number of subnational actions taken not by the federal government, but by subsidiary governmental units such as the states and groups of states in the form of regional undertakings. This Article does not address those actions, which unlike regulations promulgated under federal statutes, are not under the direct control of the federal government, and hence are not amenable to implementation through direct action by the President.

³⁰² For instance, in 2015, the President by executive order directed reductions in emissions from federal facilities in the United States relying on his executive power. Exec. Order No. 13,693, 80 Fed. Reg. 15,871 (Mar. 19, 2015) (mandating “reduc[tions in] agency direct greenhouse gas emissions by at least 40 percent over the next decade”). This is the only domestic legal authority correlated with quantified reductions in the U.S. INDC.

³⁰³ See *supra* note 77.

³⁰⁴ See generally Lima Call for Climate Action, *supra* note 74 (offering various proposals for a draft negotiating text).

CONCLUSION

Although other international activities are underway and have been supported by the United States,³⁰⁵ the U.N.-sponsored climate negotiations are unique. They are global, and to that extent include essentially every state on the planet, from those like the United States contributing the most to the problem to those such as small island states that stand to suffer the worst consequences. Importantly, the global negotiations include all developing countries, which understandably lack the resources meaningfully to control their own emissions due to other pressing priorities, but are a source of increasing concern as emissions increase with economic development. For that reason, U.N.-sponsored climate negotiations are both difficult and frustrating to navigate, but also necessary to success on this truly global issue. For perhaps related reasons, the FCCC is controversial as a forum, particularly in the United States, due to the association with the Kyoto Protocol.

Particularly in the FCCC, there is no escaping the conclusion that binding character matters. A number of states, and particularly the European Union, have stated that they are prepared to make meaningful, internationally binding mitigation commitments and expect the same from their treaty partners. This is the reason that the parties to the Framework Convention have agreed to adopt “a protocol, another legal instrument or an agreed outcome with legal force.” The binding character of an international agreement matters domestically as well, not only in the courts and in relations between the federal government and the states,³⁰⁶ but also in terms of the seriousness of the commitment on the part of the executive branch and in its relations with Congress.

Unlike the Framework Convention in 1992, the Kyoto Protocol in 1997, and the Copenhagen Accord in 2009, there is now no plausible argument that there are legal barriers to conclusion by the United States of at least some internationally legally binding mitigation commitments in Paris at the end of

³⁰⁵ Much of the CAP discusses international cooperation in the context of adaptation, a critical issue but not directly relevant as a forum in which the United States will likely make commitments to mitigation. Of those alternative venues identified in the CAP where emission reductions are under discussion—for instance the Major Economies Forum and the Asia-Pacific Economic Cooperation Forum—participation is selective and not global, and outputs are understood to be non-legally binding. The possibility of a global free trade agreement in environmental goods and services is effectively a dead letter as a result of the collapse of the Doha Round in the World Trade Organization, of which an agreement along these lines was a component. Actions under the Montreal Protocol, Montreal Protocol on Substances That Deplete the Ozone Layer, Sept. 16, 1987, 1522 U.N.T.S. 3, on HFCs, which simultaneously deplete stratospheric ozone and exacerbate greenhouse warming, have considerable independent momentum of their own. Undertakings that are not binding under international law have likewise typically been considered neither Article II, Section 2 treaties nor executive agreements, and hence have not been subject to Senate advice and consent. *See, e.g.*, Michael D. Ramsey, *Executive Agreements and the (Non)treaty Power*, 77 N.C. L. REV. 133, 188 (1998). Of necessity, non-binding undertakings are not subject to judicial review. *Cf. generally* Duncan B. Hollis & Joshua J. Newcomer, “Political” Commitments and the Constitution, 49 VA. J. INT’L L. 507 (2009) (advocating legislative assertiveness in oversight of political commitments).

³⁰⁶ *E.g.*, *supra* text accompanying notes 142–43 (discussing the Clean Power Plan’s reliance on state-level action).

2015. Even under the most conservative legal interpretation, the binding international commitments that can be undertaken by the United States in a “protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties” in Paris include at a minimum those that are already in place domestically. And even those that have been undertaken by the executive branch unilaterally and are still in process, such as the regulations of GHGs from power plants, stand on sufficiently firm legal footing that the President can confidently make parallel legally binding international commitments that track those domestic undertakings.

The remaining impediments are political, not legal. President Obama has courageously, creatively, and constructively set out a path for the United States in the face of domestic sclerosis on the climate issue at the federal level. One of the benefits of that achievement is that he is now in a position genuinely to seize a leadership role by offering meaningful, legally binding international mitigation commitments on behalf of the United States well in advance of Paris. The entire world looks to the United States for guidance, sorely lacking so far on this crucial multilateral initiative. Serious and ambitious binding commitments from the United States can leverage similar pledges from other nations, particularly developing countries. Some domestic political discomforts are to be expected, but the benefits to all the peoples of the world are immeasurable. The world has waited a quarter century for this moment, and it can’t wait a second longer.