

SUBSIDIARITY IN EUROPEAN ENVIRONMENTAL LAW: A COMPETENCE ALLOCATION APPROACH

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Since the 1970s, the influence of the European Union in the area of environmental law and policy has steadily expanded, even though environmental policy continues to be a shared competence between the European Union and its Member States. As such, the allocation of competences between the European and national levels is governed by the principle of subsidiarity, which is aimed at maintaining a high level of decentralization. As it stands, subsidiarity is tested primarily, if not exclusively, against the presence of, or potential for, economic or environmental externalities of the regulated activity. Notwithstanding recent changes in the Lisbon Treaty to strengthen *ex ante* political control over the application of the subsidiarity principle, a rebuttable presumption in favor of an ever-increasing European role in environmental policy has developed.

This Article aims to move beyond this rebuttable presumption by introducing additional criteria for competence allocation: heterogeneity of preferences and conditions between regulated jurisdictions and activities, and the potential for economies of scale and scope. In addition, a distinction is made between the different phases of the regulatory process—specifically, norm setting, implementation, and enforcement—also referred to as regulatory competences. By distinguishing between these stages of regulation, the relative importance of externalities, and the additional criteria mentioned above, each stage of regulation is explicated. Finally, this Article discusses the extent to which instrument choice can act as an alternative for the centralization or decentralization of competences. The potential of this complementary “competence allocation” approach to the interpretation of subsidiarity in European environmental law is illustrated by a case study of the European Union Emissions Trading Scheme.

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INTRODUCTION

Balancing the regulatory power of the central and local levels is of fundamental concern for federal systems.¹ The principle of subsidiarity is one of the key legal tools through which this balance is maintained. Although many variations of this principle exist,² it may generally be defined as prescribing a division of competence where “central authority should have a subsidiary function” and perform “only those tasks which cannot be performed at a more local level.”³ Most federal systems consider subsidiarity a constitutional principle, which is subject to judicial review and enforcement.⁴ Within the United States, the Supreme Court has the duty to test statutes that may unconstitution-

¹ See, e.g., Gary Marks, Liesbet Hooghe & Kermit Blank, *European Integration from the 1980s: State-Centric v. Multi-level Governance*, 34 J. COMMON MKT. STUD. 341 (1996); Beate Kohler-Koch, *Catching Up with Change: The Transformation of Interest Groups in a Framework of Multi-level Decision-making: The Case of the European Union*, 3 J. EUR. PUB. POL'Y 365 (1996); see generally DANIEL J. ELAZAR, *EXPLORING FEDERALISM* (1987); Ronald L. Watts, *The Theoretical and Practical Implications of Asymmetrical Federalism*, in *ACCOMMODATING DIVERSITY: ASYMMETRY IN FEDERAL STATES* 24–42 (Robert Agranoff ed., 1999) (discussing the different species of a federal order, such as federations, unions, confederations, leagues, and decentralized unions).

² For an overview, see Andreas Follesdal, *The Principle of Subsidiarity as a Constitutional Principle in International Law*, 2 GLOBAL CONSTITUTIONALISM 37 (2013).

³ *Subsidiarity Definition*, OXFORD LEGAL DICTIONARY, <http://perma.cc/5K9M-VT86>.

⁴ See, e.g., *THE ROLE OF CONSTITUTIONAL COURTS IN MULTILEVEL GOVERNANCE* (Patricia Popelier, Armen Mazmanyan & Werner Vandenbruwaene eds., 2013).

ally “aggrandize national power” at the expense of state power.⁵ Similar practices exist in Germany,⁶ Canada,⁷ Australia,⁸ and the former British Empire.⁹

Within the development of the European Union (“EU”), the principle of subsidiarity has played a crucial role. As a voluntary union of sovereign nation states, the European Union defies categorization within the traditional types of federal systems, and is often described as a *sui generis* system of governance.¹⁰ Aside from those policy areas that have been delegated to the European Union and thus fall within its exclusive jurisdiction,¹¹ most policy areas—also referred to as competences—continue to be shared between the European Union and its Member States. The primary areas of shared competence include the internal market, economic, social and territorial cohesion policy, and environmental and consumer protection.¹² In these policy areas, Article 2(2) of the Treaty on the Functioning of the European Union (“TFEU”) provides that “the Union and the Member States may legislate and adopt legally binding acts [and] [t]he Member States shall exercise their competence to the extent that the Union has not exercised its competence.”¹³ The principle of subsidiarity is meant to provide guidance in determining whether the European Union or the Member States should exercise their respective powers in areas of shared competence.

Aside from establishing the constitutional basis on which the legislator *could* exercise its competence, the principle of subsidiarity may be applied at a secondary level of analysis to determine whether this competence *should* in fact be exercised.¹⁴ The latter interpretation of subsidiarity, also referred to as legislative subsidiarity,¹⁵ has been incorporated through Article 5(3) of the Treaty on European Union (“TEU”). Within the European context, the principle of sub-

⁵ Steven G. Calabresi & Lucy D. Bickford, *Federalism and Subsidiarity: Perspectives from U.S. Constitutional Law* (Northwestern University School of Law Scholarly Commons, Working Paper No. 215, 2011); *see also* Steven G. Calabresi, *A Government of Limited and Enumerated Powers: In Defense of United States v. Lopez*, 94 MICH. L. REV. 752 (1995); *Marbury v. Madison*, 5 U.S. 137 (1803).

⁶ *See* DONALD P. KOMMERS, *THE CONSTITUTIONAL JURISPRUDENCE OF THE FEDERAL REPUBLIC OF GERMANY* 69–79 (1989).

⁷ *See* RICHARD E. JOHNSTON, *THE EFFECT OF JUDICIAL REVIEW ON FEDERAL-STATE RELATIONS IN AUSTRALIA, CANADA, & THE UNITED STATES* 233–78 (1969).

⁸ *See id.*

⁹ Calabresi & Bickford, *supra* note 5, at 25 (“In the British Empire, the Privy Council in London enforced imperial federal allocations of power between Britain and its colonies and, in Canada, between the provinces and the national government.”).

¹⁰ *See generally* BEATE KOHLER-KOCH & RAINER EISING, *THE TRANSFORMATION OF GOVERNANCE IN THE EUROPEAN UNION* (1999).

¹¹ *Compare* Consolidated Version of the Treaty on the Functioning of the European Union art. 2(1), Oct. 26, 2012, 2012 O.J. (C326) 55 [hereinafter TFEU] *with* TFEU art. 3(1) *and* TFEU art. 3(2).

¹² TFEU art. 4(2).

¹³ TFEU art. 2(2).

¹⁴ Werner Vandendriessche, *Multi-Tiered Political Questions: The ECJ’s Mandate in Enforcing Subsidiarity*, 6 LEGISPRUDENCE 321, 326 (2012).

¹⁵ *Id.* at 326–28; *see also* Daniel Halberstam, *Comparative Federalism and the Role of the Judiciary*, in *THE OXFORD HANDBOOK OF LAW AND POLITICS* 152–54 (Keith E. Whittington et al. eds., 2008); KOEN LENAERTS & PIET VAN NUFFEL, *CONSTITUTIONAL LAW OF THE EUROPEAN UNION* 100–02 (Robert Bray ed., 2d ed., 2005); Franz Mayer, *Competences-Reloaded? The Vertical Division of Powers in the EU and the New European Constitution*, 3 INT’L J. CONST. L. 498 (2005).

sidiarity aims to increase both the efficiency and legitimacy of European governance by assessing which level of government is better suited to perform certain tasks.¹⁶

Specifically, Article 5(3) TEU provides that the European Union shall act only to the extent necessary to successfully obtain the objectives of the European Union, in cases where Member State action on the same issue is unlikely to succeed due to “reasons of scale or effect.”¹⁷ This phrasing of the subsidiarity principle within the European Treaties speaks to the aim of maintaining the highest possible level of decentralization.¹⁸ However, the history of the European Union has been one of growing European influence in shared competence areas—in other words, centralization.¹⁹ Many attribute the failure to stop this centralization to the lack of judicial enforcement of the subsidiarity principle due to the reluctance of the Court of Justice of the European Union (“CJEU”) to construct a verifiable standard on the basis of Article 5(3) TEU.²⁰ Aside from ex post enforcement of the subsidiarity principle, efforts have been undertaken to strengthen the ex ante testing of legislative action to the subsidiarity principle.²¹ During the most recent revision of the European Treaties,²²

¹⁶ These two goals represent two historical normative underpinnings of the subsidiarity principle. See Follesdal, *supra* note 2, at 41–46.

¹⁷ Consolidated Version of the Treaty on the European Union art. 5(3), Oct. 26, 2012, 2012 O.J. (C326) 13 [hereinafter TEU].

¹⁸ The preference for decentralization is also a central tenet within the economic theory of federalism, represented, for instance, by Wallace Oates’s Decentralization Theorem. See WALLACE E. OATES, *FISCAL FEDERALISM* 54 (1972). Oates’ Decentralization Theorem posits that the local provision of public goods will be Pareto superior to centralized provision of public goods. This result depends on the absence of spillovers or externalities and assumes that centralized provision of the public good results in a uniform level of output across jurisdictions. *Id.* For an alternative view of the subsidiarity principle, see Vandenbruwaene, *supra* note 14, at 344 (“subsidiarity legally understood is a neutral regulative principle”).

¹⁹ See Alberto Alesina et al., *What Does the European Union Do?*, 123 *PUB. CHOICE* 275 (providing empirical evidence on the expansion of the policymaking role of the European Union between 1971 and 2000). In the European Union, something seems to have drawn the process of allocation of policy responsibilities away from the optimal balance of economies of scale and the heterogeneity of preferences. Substantial harmonization and centralization have occurred in areas where heterogeneity of preferences is predominant (such as social protection or agricultural policy), whereas other areas characterized by strong economies of scale (such as defense and environmental protection) have remained in the local domain. See *id.*

²⁰ See ANTONIO ESTELLA, *THE EU PRINCIPLE OF SUBSIDIARITY AND ITS CRITIQUE* 156 (2002) (“Prudence . . . best summarizes the [European] Court’s doctrine on the principle of subsidiarity.”); see also Richard H. Fallon, *Judicially Manageable Standards and Constitutional Meaning*, 119 *HARV. L. REV.* 1274, 1331 (2005) (advocating an activist approach: “When a constitutional norm is not a judicially manageable standard, it becomes the function of courts to attempt to devise or select one.”); Werner Vandenbruwaene, *The Judicial Enforcement of Subsidiarity: The Quest for an Appropriate Standard*, in *THE ROLE OF CONSTITUTIONAL COURTS IN A CONTEXT OF MULTILEVEL GOVERNANCE* 131–64 (Patricia Popelier et al. eds., 2012) (presenting an analysis of European case law).

²¹ Additional procedural standards were introduced in the Edinburgh Guidelines but these were ultimately not included in the Lisbon revisions and are currently found only in the Impact Assessment Guidelines—a source of soft law applicable to the European Commission in executing its legislative duties. European Commission, *Impact Assessment Guidelines*, SEC (2009) 92 (Jan. 15, 2009) (part of the European Commission’s Smart Regulation agenda); see also Vandenbruwaene, *supra* note 14, at n. 52.

ex ante subsidiarity review by national parliaments was introduced²³ through the addition of Protocol No. 2 on the application of the principles of subsidiarity and proportionality.²⁴ Despite these changes, concrete criteria for the allocation of competences between the European and national level remain elusive.²⁵

Subsidiarity is particularly relevant for environmental policy. Since the 1990s, the European Union has manifested itself as an environmental leader by advancing environmental policy within its own territory, as well as internationally. Environmental policy only became part of European governance in the 1970s, and continues to be a shared competence.²⁶ Yet a rebuttable presumption in favor of centralization, rather than decentralization, appears to have developed within this area, which has witnessed one of the fastest expansions of competences of any area of EU policy making. The strongest argument in favor of centralization is the transboundary nature of many environmental problems, which speaks for their regulation at the EU level.²⁷ However, the European Union has also become the main regulator with respect to purely local environmental problems. The rationale behind the European Union's role in local environmental problems is that Member States' heterogeneous responses to local environmental problems could result in potential trade barriers and thereby disrupt the internal market.²⁸

This Article questions the presumption in favor of centralization that has developed with respect to environmental competence within the European Union.²⁹ After discussing the current practice of subsidiarity in EU law, and specifically EU environmental law (Part I), the Article introduces an alternative "regulatory competence" approach to subsidiarity (Part II).³⁰ This approach differs from existing practice in three important ways. First, the exclusive focus on externalities as a grounds for centralization is expanded with two additional criteria for competence allocation based on economic theories of federalism: (1) heterogeneity of preferences and conditions between regulated jurisdictions

²² Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Communities, Dec. 13, 2007, 2007 O.J. (C 306) 1 [hereinafter Treaty of Lisbon].

²³ Treaty of Lisbon Protocol No. 1.

²⁴ Treaty of Lisbon Protocol No. 2.

²⁵ For a small sample of the rich academic literature on this topic, see Kees van Kersbergen & Bert Jan Verbeek, *The Politics of Subsidiarity in the European Union*, 32 J. COMMON MKT. STUD. 215 (1994); Jonathan Golub, *Sovereignty and Subsidiarity in EU Environmental Policy*, 44 POL. STUD. 686 (1996); David Benson & Andrew Jordan, *Understanding Task Allocation in the European Union: Exploring the Value of Federal Theory*, 15 J. EUR. PUB. POL'Y 78 (2008).

²⁶ TFEU art. 4(2)(e); see also TFEU arts. 191–93.

²⁷ Nicolas de Sadeleer, *Principle of Subsidiarity and the EU Environmental Policy*, 9 J. EUR. ENVTL. & PLAN. L. 63, 64 (2012).

²⁸ *Id.*

²⁹ The regulatory competence approach as applied in this paper was first developed in JOSEPHINE VAN ZEBEN, *THE ALLOCATION OF REGULATORY COMPETENCE IN THE EU EMISSIONS TRADING SCHEME* (2014).

³⁰ For the remainder of this Article, and particularly in the context of the competence allocation approach to subsidiarity, the term "competence" refers to the exercise of government authority, primarily by public actors. This is distinct from the use of the same term earlier in this Article when describing areas of competence in which the European Union can or cannot act.

and activities, and (2) the potential for economies of scale and scope. Second, the regulatory process is separated into three different stages: norm setting, implementation, and enforcement. Distinguishing between these different stages of the policy process, also referred to as regulatory competences, allows us to determine the relative weight of substantive subsidiarity criteria—externalities, heterogeneity, and economies of scale/scope—at each stage of the regulatory process. Finally, the extent to which instrument choice can act as an alternative for the centralization, or decentralization, of regulatory competences is explored.

The implications of this “competence allocation” approach for the practice of environmental regulation in the European Union are then studied through a case study of the European Union Emissions Trading Scheme (“EU ETS”) (Part III). The EU ETS is one of the main regulatory instruments through which the European Union aims to fulfill its emission reduction obligations under the United Nations Framework Convention on Climate Change and the related Kyoto Protocol.³¹ It establishes a market for CO₂ emission allowances which may be traded between regulated industries.³² Thus far, the EU ETS has gone through three distinct trading phases—the “learning by doing” phase (2005–2007), the “Kyoto commitment” phase (2008–2012), and the “post-Kyoto” phase (2013 onwards)—and the division of power between the European Union and the Member States has changed between each of these phases. The system has changed from a predominantly decentralized system into a more centralized one.³³ The extent of this centralization differs across stages of the regulatory process and in many respects there has been an intermingling, rather than separation, of powers.³⁴ As a consequence, the successful functioning of the EU ETS depends on regulatory action across several governance levels within the European Union, and in part, on the international level. Analyzing the effects of centralization and decentralization on implementation

³¹ See United Nations Framework Convention on Climate Change art. 4(1), May 9, 1992, 1771 U.N.T.S. 107 [hereinafter UNFCCC]; Kyoto Protocol to the United States Framework Convention on Climate Change Annex IB, Dec. 11, 1997, 37 I.L.M. 22 [hereinafter Kyoto Protocol]; see also *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions for Commission Communication, “20 20 by 2020 – Europe’s Climate Change Opportunity,”* at 13, COM (2008) 30 final (Jan. 23, 2008) [hereinafter 20 20 by 2020] (setting out some of the ways in which the EU ETS fits into the general climate and energy policy of the European Union). The EU ETS is also the largest cap-and-trade system currently in operation: In 2010, the EU ETS market volume amounted to 5.5 billion tons CO₂ with a weighted average price of € 14.5/ton, accounting for eighty percent of global transacted volume. Guy Turner, *Value of the Global Carbon Market Increases by 5% in 2010 but Volumes Decline*, BLOOMBERG NEW ENERGY FIN., Jan. 6, 2011, <http://perma.cc/K5LD-2DBT>. By comparison, the market share of the Regional Greenhouse Gas Initiative (“RGGI”) in the United States dropped from nine percent to less than one percent in 2010 due to the lack of prospects for a federal cap-and-trade scheme in the United States. *Id.*

³² See Part III.

³³ On the tension between centralization and decentralization in the EU ETS, see Josephine van Zeben, *(De)Centralized Law-making in the Revised EU ETS*, 3 CARBON & CLIMATE L. REV. 340 (2009).

³⁴ Laurens Jan Brinkhorst, *Subsidiarity and European Community Environment Policy: A Panacea or a Pandora’s Box?*, 2 EUR. ENERGY & ENVTL. L. REV. 8, 17, 20 (1993).

and enforcement within the EU ETS, in terms of externalities, heterogeneity, and economies of scale/scope, provides additional grounds for power sharing between the European Union and the Member States.

I. SUBSIDIARITY WITHIN EUROPEAN ENVIRONMENTAL LAW

The European Union falls short of a federal system but achieves a level of integration that goes beyond that of an international organization.³⁵ As a result, the European Union is constructed out of a unique combination of institutional features that are typically found only within international organizations or nation states, but not in one single system.³⁶ At times, the application of principles that developed within a domestic federal setting can prove problematic, as their meaning changes together with their institutional setting. Subsidiarity is a prime example of such a principle.

The virtues ascribed to subsidiarity in the European context are very similar to those ascribed to, for instance, American federalism:³⁷ “self-determination and accountability, political liberty, flexibility, preservation of identities, diversity and respect for internal division of component states.”³⁸ Naturally, the aim of “diversity and the preservation of identities” carries different weight and meaning in a coalition of sovereign nations as compared to a federal nation state.³⁹ Similarly, the relationship between individual citizens and the European Union—the role of individuals within the democratic process of the European Union—is distinct from that of a national citizen and its government.⁴⁰

³⁵ Christine Reh, *The Lisbon Treaty: De-Constitutionalizing the European Union?*, 47 J. COMMON MKT. STUD. 625, 628 (2009) (“In a ‘thin’ sense, any law ‘that establishes and regulates the main organs of government, their constitution and powers’ would qualify as a constitution . . . [I]f a constitution designates ‘the core principles of any given polity’, defines and delimits political power and provides normative guidance, the EU’s primary law clearly qualifies as such.”) (quoting Joseph Raz, *On the Authority and Interpretation of Constitutions: Some Preliminaries*, in CONSTITUTIONALISM: PHILOSOPHICAL FOUNDATIONS (Larry Alexander ed., 1998)); Erik O. Eriksen et al., *Introduction: A Constitution in the Making?*, in DEVELOPING A CONSTITUTION FOR EUROPE 2 (Erik O. Eriksen et al. ed., 2004).

³⁶ See, e.g., EISING & KOHLER-KOCH, *supra* note 10, at xi.

³⁷ As summarized by Justice O’Connor, federalism assures a decentralized government that will be more sensitive to the diverse needs of a heterogeneous society; increases opportunity for citizen involvement in democracy; and allows for more innovation and experimentation, a more responsive government, and, most importantly, a check on abuses of government power. Gregory v. Ashcroft, 501 U.S. 452, 458 (1991).

³⁸ Gerald L. Neuman, *Subsidiarity, Harmonization, and Their Values: Convergence and Divergence in Europe and the United States*, 2 COLUM. J. EUR. L. 573, 574 (1995) (quoting George Bermann, *Taking Subsidiarity Seriously: Federalism in the European Community and the United States*, 94 COLUM. L. REV. 331, 343, n. 31 (1994)).

³⁹ *Id.* at 575.

⁴⁰ The formalization of public authority beyond the nation-state through an increase of formal laws—the European institutions exercise public power in ways similar to nation states—is the post-national feature of the European Union that many consider definitive of the EU’s sui generis nature. See, e.g., Gerda Falkner, *European Social Policy: Towards Multi-level and Multi-actor Governance*, in EISING & KOHLER-KOCH, *supra* note 10, at 81, 93–94 (referring to the creation of a post-national democracy).

The question as to whether a stronger application of the subsidiarity principle would remedy the much-debated “democratic deficit” of the European Union remains unclear and is beyond the scope of this Article.⁴¹ In the context of the current discussion, this debate illustrates that the interpretation of the principle of subsidiarity within the EU context, and its implications for power sharing, must take note of the specific institutional context of the European Union. Before discussing the development of a European competence in environmental policy and the role of subsidiarity within this development, this Part will therefore briefly touch upon the institutional structure of the European Union, the relationship between its institutions, and the relationship between these institutions and the Member States.

A. Power Sharing Within the European Union

The European Community, which provided the foundation for the European Union as it stands today, was founded through a set of treaties negotiated by sovereign states under international law. This intergovernmental system has since developed from a “relationship binding upon the states *qua* states, to an integrated legal order that confers rights and obligations on private parties.”⁴² Put differently, the international treaties that founded the European Commission/European Union may be seen to behave as constitutional charters rather than instruments of international law.⁴³ These constitutional charters govern four main categories of relationships: the relationship between the EU institutions, between the EU institutions and the Member States, between the EU institutions and EU citizens, and between the European Union and external parties.⁴⁴ The first two relationships will be the focus of our analysis, as most weight attaches to subsidiarity in the relationship between the EU institutions and the Member States. In addition, when considering power sharing within the European Union more generally, we must also take note of the relationship between the EU institutions themselves.

⁴¹ The process of implementation and adoption of EU laws by committees under the guidance of the European Commission, known colloquially as “comitology,” is heavily criticized for its lack of democratic legitimacy. See, e.g., Mark Rhinard, *The Democratic Legitimacy of the European Union Committee System*, 15 GOVERNANCE 185 (2002). Since 2005, the European Parliament has gained significant influence in the comitology process, which means that the Parliament and the Council now have the prerogative to scrutinize the outcome of quasi-legislative comitology procedures. For purely executive and administrative decisions, the review powers of the Parliament and Council remain very limited. The Commission was, therefore, obliged to create a register of comitology documents and a web-based repository to the register, which allows direct access to certain documents and contains a link for requesting non-public documents. See *Comitology Register*, EUROPEAN COMMISSION, <http://perma.cc/7DDJ-DSBL>.

⁴² Reh, *supra* note 35, at 627 (quoting Paul Craig, *Constitutions, Constitutionalism, and the European Union*, 7 EUR. L. J. 125, 128 (2001)).

⁴³ Joseph H. H. Weiler, *The Reformation of European Constitutionalism*, 35 J. COMMON MKT. STUD. 97, 97 (1997).

⁴⁴ Several other relationships are governed directly or indirectly by treaties that may be considered sub-species of these four categories. For instance, treaties govern the relationship between companies (EU competition law), between the EU institutions and its employees, and between EU political parties and Members of Parliament.

1. Power Sharing Between EU Institutions⁴⁵

The provisions of Title III of the TEU and Part Six, Title I of the TFEU govern the European institutions that compose the European “government.”⁴⁶ The three primary legislative bodies are the European Parliament, the Council of the European Union, and the European Commission (“the Commission”). Of these three bodies, the Commission has the exclusive right to initiate new legislation,⁴⁷ which must then be approved by the Parliament and the Council in line with the “ordinary legislative procedure” as set out in Article 224 of the TFEU. The Commission is also the only body which is not directly or indirectly elected;⁴⁸ the Parliament is directly elected by citizens of the Member States,⁴⁹ whereas the Council is composed of governmental representatives from the ministerial level, who may cast votes for their respective Member States.⁵⁰ Once European laws are adopted—in the form of regulations, directives, or decisions⁵¹—they must be implemented by the Member States with the help and oversight of the Commission. In terms of power sharing, the relationship between the three core European institutions is best described as one of institutional balance, rather than a separation of powers model that governs most Member State governments.⁵²

The Court of Justice of the European Union (“CJEU”) and the General Court embody the judicial branch of the European Union.⁵³ The CJEU has played a crucial role in the constitutionalization of the European Treaties, estab-

⁴⁵ A rich body of literature exists with respect to each European institution, as well as to institutions’ interactions with each other. This Part will only set out the core features of these institutions and their roles within EU government and governance. For further reading, see, e.g., Wayne Sandholtz, *Membership Matters: Limits of the Functional Approach to European Institutions*, 34 J. COMMON MKT. STUD. 403 (1996); Sophie Meunier, *What Single Voice? European Institutions and EU-U.S. Trade Negotiations*, 54 INT’L ORG. 103 (2000); Paul Kirchhof, *The Balance of Powers Between National and European Institutions*, 5 EUR. L. J. 225 (1999).

⁴⁶ The European institutions are governed by provisions within the European Treaties, specifically under Title III of the TEU and Part Six, Title I of the TFEU. Article 13 of the TEU lists the EU institutions, which include the European Parliament, the European Council, the Council of the European Union, the European Commission, the Court of Justice of the European Union, the European Central Bank, and the Court of Auditors. TEU arts. 13–19; TFEU arts. 223–81.

⁴⁷ The Parliament may request the Commission to initiate new legislation. If the Commission refuses to do so, the Commission is required to give reasons for the refusal. TFEU art. 225.

⁴⁸ TEU art. 10(2).

⁴⁹ An important feature of the European Parliament is that its elected members do not sit by nationality but rather by party—for example, members of the Dutch Green party sit with members of the Polish Green party. *The European Parliament*, EUROMOVE.ORG, <http://perma.cc/NBV4-DL7Q>.

⁵⁰ TEU art. 16(2).

⁵¹ See TFEU art. 288. The European Union can also adopt recommendations and opinions, but these have no binding force.

⁵² See also Reh, *supra* note 35, at 638.

⁵³ The Court of Justice consists of one judge from each Member State—meaning there are currently twenty-eight judges—and is assisted by advocates-general. Each judge serves for a set term of six years, and may be reappointed. *Court of Justice of the European Union*, EUROPA.EU, <http://perma.cc/6NHJ-SFVA>. The General Court includes at least one judge from each Member State. *Presentation*, EUROPA.EU, <http://perma.cc/FRE4-TYJ2>.

lishing doctrines such as the direct effect and supremacy of European law,⁵⁴ which are not to be found in the European Treaties but rather have been read into them by the European Courts.⁵⁵ Through landmark judgments in the 1960s, the CJEU established the supremacy of EU law over national law, including national constitutions.⁵⁶ In addition, the Treaties now “do not only create relationships between states *qua* states (as does international law), but confer rights and obligations on third parties and curb public power (as do constitutions).”⁵⁷

Together with the Commission, the European Courts are also tasked with the enforcement of European law. When Member States choose not to implement directives, to implement directives incorrectly, or adopt national legislation that runs contrary to European law, the Commission may begin an infringement procedure. Such an infringement procedure starts with extra-judicial communication between the Commission and the Member States but may be supplemented by judicial enforcement by the European Court.⁵⁸ These interpretative and enforcement powers have added to the autonomy of the EU institutions, which may now be considered formally independent from the Member States that created the European Union, or rather its predecessors, in the 1950s.

2. *Subsidiarity Between the EU Institutions and the Member States*

The European Union is only empowered to act within the limits of the competences conferred upon it by the Member States through the Treaties.⁵⁹ The Union’s power is further restricted by the principles of subsidiarity and proportionality in areas of shared competence.⁶⁰ The legal and factual application of subsidiarity varies per policy area and comprehensive discussion of these practices goes beyond the scope of this Article. A general observation may be made, however, that willingness of Member States to accept centralized policymaking at the European level has decreased across policy areas over the past ten years. During the last Treaty revisions, specific steps were taken in

⁵⁴ Case 26/62, *N.V. Algemene Transport - en Expeditie Onderneming van Gend & Loos v. Neth. Inland Revenue Admin.*, 1962 E.C.R. 1; Case 6/64, *Flaminio Costa v. It. Nat’l Elec. Bd.*, 1964 E.C.R. 585 (establishing the supremacy and direct effect of EU law).

⁵⁵ See, e.g., Weiler, *supra* note 43, at 112 (“Direct effect and supremacy are at the core of the constitutional construct.”).

⁵⁶ *Id.*; see also, e.g., Roman Kwiecień, *The Primacy of European Union Law Over National Law Under the Constitutional Treaty*, 6 GERMAN L. J. 1479 (2005).

⁵⁷ Reh, *supra* note 35, at 633.

⁵⁸ TFEU art. 258. For those Member States who fail to comply, the Court may impose penalty payments. Press Release, European Commission, *Financial Penalties for Member States who Fail to Comply with Judgments of the European Court of Justice: European Commission Clarifies Rules* (Dec. 14, 2005), available at <http://perma.cc/Y3XV-MPSK>.

⁵⁹ See *supra* Introduction.

⁶⁰ TEU arts. 5(3)–(4) (“3. Under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level. . . . 4. Under the principle of proportionality, the content and form of Union action shall not exceed what is necessary to achieve the objectives of the Treaties.”). For exclusive and shared competences, see TEU arts. 3–4.

order to reinforce the subsidiarity principle, such as the inclusion of Protocol No. 2 on the interpretation of the subsidiarity principle by the EU institutions.⁶¹ The guidelines contained in the Protocol are mainly procedural, setting out certain legislative steps for the European institutions to follow.⁶² A procedural safeguard with significant democratic implications is the explicit role for national parliaments in the “good functioning of the Union” under Title II of the TEU.⁶³ National parliaments have the right to, *inter alia*, be informed of draft legislative acts and take part in revision procedures of the Treaties.⁶⁴ It is not yet clear to what extent national parliaments will be able to curb excessive centralization in certain policy areas by enforcing the subsidiarity principle.⁶⁵ Overall, the relationship between the European Union and its Member States appears to move on a continuum between centralization and decentralization.⁶⁶ In addition, there are indirect and informal restrictions to European regulation that impact the interpretation of subsidiarity. For instance, Member States retain different levels of discretion in the implementation and enforcement of EU-based policies depending on the legal instrument used to regulate: Whereas directives are binding only with respect to the result of legislation,⁶⁷ regulations are far more restrictive and leave no room for Member State discretion regarding implementation.⁶⁸

B. Subsidiarity Within Environmental Policy

Environmental issues first appear on the European agenda after the 1972 Paris Summit. During this summit, the heads of state and government of the then-European Economic Community (“EEC”) adopted a declaration on environmental and consumer policy,⁶⁹ which led to the adoption of the First Envi-

⁶¹ TFEU Protocol (No. 2).

⁶² Reference is made to an assessment of the proposal’s financial impact and to the fact that account should be taken “of the need for any burden, whether financial or administrative, falling upon the Union, national governments, regional or local authorities, economic operators and citizens to be minimized.” See TFEU Protocol (No. 2) art. 5.

⁶³ TEU art. 12.

⁶⁴ TEU art. 12.

⁶⁵ See, e.g., Tapio Raunio, *Destined for Irrelevance? Subsidiarity Control by National Parliaments* (Real Instituto Elcano Working Paper 36/2010, 2010), available at <http://perma.cc/G34K-FZQY>. But see Ian Cooper, A ‘Virtual Third Chamber’ for the European Union? *National Parliaments After the Treaty of Lisbon*, 35 W. EUR. POL. 441 (2012).

⁶⁶ See generally Paul D. Hutchcroft, *Centralization and Decentralization in Administration and Politics: Assessing Territorial Dimensions of Authority and Power*, 14 GOVERNANCE 23, 46 (2001). The framework of competence allocation developed in Part II will not incorporate the continuous nature of centralization and decentralization as modeling such a framework would have its own additional complications that are outside the scope of this Article. However, the author subscribes to the theoretical understanding of this process as continuous rather than binary and agrees that further work is needed on modeling this question.

⁶⁷ TFEU art. 288, ¶ 3.

⁶⁸ TFEU art. 288, ¶ 2.

⁶⁹ *Statement from the Paris Summit*, E.C. BULL., no. 10, at 14 (1972), available at <http://perma.cc/4VTR-KEUP> (“The Heads of State or of Government emphasised the importance of a Community environmental policy. To this end they invited the Community Institutions to establish before 31 July, 1973, a programme of action accompanied by a precise timetable.”) (emphasis added).

ronmental Action Program (“EAP”) in November 1973.⁷⁰ Nevertheless, environmental policy was not explicitly incorporated into the European Community’s objectives until the adoption of the Maastricht Treaty in 1992.⁷¹ In this Part, the development of environmental policy as a shared competence will briefly be set out in order to illustrate the policy considerations that inform subsidiarity and power sharing decisions in this area.

1. *An Environmental Dimension to European Trade*

Despite the initial steps taking during the 1972 Paris Summit and in the First and Second Environmental Action Plans, environmental issues remained in the national sphere of influence throughout the late 1970s and 1980s. This was in large part a reaction to slowed European economic growth. Accordingly, the revival of environmental interest during the 1980s and 1990s underlined the internal market implications of environmental policy.⁷² This limited the scope and purpose of EC environmental legislation: Only those environmental measures necessary for ensuring market integration—in other words, those that prevented potential trade barriers—were considered.⁷³ Importantly, many of the environmental policies adopted during this period were national strategies that were exported to the European level.⁷⁴ The 1987 Single European Act was the first European Treaty to provide explicit legal basis for environmental action at

⁷⁰ Council Declaration, 1973 O.J. (C112) 1.

⁷¹ The revised EC art. 2 stated: “The Community shall have as its task . . . to promote throughout the Community a harmonious and balanced development of economic activities, sustainable and non-inflationary growth respecting the environment . . .” Treaty on European Union (Maastricht text), July 29, 1992, 1992 O.J. C 191/1. By contrast, Article 2 of the 1957 Treaty of Rome was phrased as follows: “The Community shall have as its task, by establishing a common market and progressively approximating the economic policies of Member States, to promote throughout the Community *a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between the States belonging to it.*” Treaty Establishing the European Economic Community, art. 2, Mar. 25, 1957, 298 U.N.T.S. 11 [hereinafter EEC Treaty] (emphasis added).

⁷² EEC Treaty art. 100 (“The Council shall, acting unanimously on a proposal from the Commission, issue directives for the approximation of such provisions laid down by law, regulation or administrative action in Member States as directly affect the establishment or functioning of the common market.”); *see also* Case 92/79, *Comm’n v. Italy*, 1980 E.C.R. 1115, 1122 (“[I]t is by no means ruled out that provisions on the environment may be based upon Article 100 of the Treaty. Provisions which are made necessary by considerations relating to the environment and health may be a burden upon undertakings to which they apply and if there is no harmonization of national provisions on the matter, competition may be appreciably distorted.”).

⁷³ Most of the measures proposed in the Third EAP (1982–1986) were geared towards environmental product standards, such as emission standards for mobile and stationary sources, and the environmental regulation of industrial sites. *See generally* Information and Notices, 1983 O.J. (C 46).

⁷⁴ Christian Hey, *EU Environmental Policies: A Short History of the Policy Strategies*, in *EU ENVIRONMENTAL POLICY HANDBOOK: A CRITICAL ANALYSIS OF EU ENVIRONMENTAL LEGISLATION* 20 (Stefan Scheuer ed., 2005).

the European level.⁷⁵ Although significant, the provisions of Title VII did little more than codify existing practices as put in place by the EAPs.⁷⁶

The internal market continued to be one of the main drivers for environmental policy, with a growing awareness of sustainability issues.⁷⁷ Sustainability also became an increasingly important aspect of the international agenda as the European Community began to envisage itself as a leader in international environmental policy. At this time, there is still no explicit mention of the environment as part of the Community's objective, nor the suggestion that international negotiation within these areas would fall within its competence. The Fifth EAP aims to position the Community as the vessel for many of the environmental policies developed by individual countries within the Community and for the externally oriented policies developed through international negotiation.

2. Subsidiarity: From Push-Back to Centralization

The Fifth EAP was not well received by the Member States, who had demanded the re-nationalization of a number of environmental policies based on the newly codified principle of subsidiarity.⁷⁸ This pushback led to a strategy change by the European Commission, which started to focus primarily on voluntary agreements, self-regulation, and framework directives rather than more prescriptive regulations or market-based mechanisms. Member States' appeals to the subsidiarity principle were, however, generally unsuccessful at stopping the flow of European environmental policies that were put forward in the late 1990s.

The development of general principles of European environmental law, based on the Court's interpretation of, *inter alia*, Article 174(3) of the EC Treaty,⁷⁹ added to the further centralization of environmental policy as environ-

⁷⁵ Single European Act, arts. 130r–t, Feb. 17–28 1986, 1987 O.J. L 169/1 [hereinafter SEA] (amending EEC Treaty).

⁷⁶ The adoption of the Fourth EAP (1987–1992) coincided with the ratification of the Single European Act.

⁷⁷ Case 240/83, *Procureur de la Republique v. ADBHU*, 1985 E.C.R. 531, 549 (concerning Directive 75/439/EEC on waste oils: “[I]t should be observed that the principle of freedom of trade is not to be viewed in absolute terms but is subject to certain limits justified by the objectives of general interest pursued by the Community provided that the rights in question are not substantively impaired. There is no reason to conclude that the directive has exceeded those limits. The directive must be seen in the perspective of environmental protection, which is one of the Community's essential objectives.”) (emphasis added).

⁷⁸ Consolidated Version of the Treaty Establishing the European Community art. 174(3), 2002 O.J. C 325/33 art. 5(2) (now TEU art. 5) [hereinafter EC Treaty].

⁷⁹ EC Treaty art. 174(3) (“In preparing its policy on the environment, the Community shall take account of: available scientific and technical data, environmental conditions in the various regions of the Community, the potential benefits and costs of action or lack of action, the economic and social development of the Community as a whole and the balanced development of its regions.”); see also EC Treaty art. 174(2) (“Community policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Community.”) (emphasis added); EC Treaty art. 95(3) (“The Commission, in its proposals envisaged in paragraph 1 concerning health, safety, environmental protection and consumer protection, will take as a base a high level of protection, taking account in particular of any new development

mental considerations were integrated into other areas of European policy-making.⁸⁰ The principle of preventative action was particularly formative since it reversed the burden of proof in policy-making:⁸¹ “[w]here there is *uncertainty as to the existence or extent of risks* to human health, the [European] institutions may take protective measures without having to wait until the reality and seriousness of those risks become fully apparent.”⁸²

Ultimately, the growing legal basis for European action on environmental issues paved the way for a majority of Green and Social Democrat Ministers in the Environmental Council, a strong “green” coalition in the European Parliament, and an environmentally minded European Commission to bypass previous environmental vetoes of certain Member States.

3. EU Environmental Competence Post-Lisbon

The most recent EU treaty revision through the Treaty of Lisbon finally clarified the nature and extent of European competence in the area of environmental policy. The Lisbon Treaty, moreover, elaborated on the role of the subsidiarity principle in deciding whether the European Union should in fact exercise its competence. The EU’s shared environmental competence allows the European Union to overrule Member States’ existing legislation and preempt future legislation.⁸³ That said, European legislation in the area of environmental policy is so-called “minimum harmonization,” which means that Member

based on scientific facts.”) (emphasis added); Charter of Fundamental Rights of The European Union art. 37, 2000 O.J. C 364/1, at 17 (“A *high level of environmental protection* and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development.”) (emphasis added).

⁸⁰ See EC Treaty art. 6 (“*Environmental protection requirements must be integrated* into the definition and implementation of [all] Community policies and activities . . . in particular with a view to promoting sustainable development.”) (emphasis added).

⁸¹ Council Declaration, 1973 O.J. (C112) 6 (“The best environment policy consists in *preventing the creation of pollution or nuisances at source*, rather than subsequently trying to counteract their effects. . . . Any exploitation of natural resources or of a nature which *causes significant damage* to the ecological balance must be avoided.”) (emphasis added). The principle of preventative action also formed the basis for the precautionary principle, which is now also a founding principle of international environmental law and policy. See United Nations Conference on Environment and Development, Rio de Janeiro, Braz., June 3–14, 1992, *Rio Declaration on Environment and Development*, U.N. Doc. A/Conf.151/26/Rev.1 (Vol. I), Annex I (Aug. 12, 1992) (“1992, Principle 15: In order to protect the environment, the *precautionary approach* shall be widely applied by States according to their capabilities. Where there are *threats of serious or irreversible damage*, lack of *full scientific certainty* shall not be used as a reason for postponing *cost-effective measures* to prevent environmental degradation.”) (emphasis added).

⁸² Case C-180/96, U.K. v. Comm’n of European Cmtys, 1998 E.C.R. I-2269 at I-2298; see also Case C-127/02, Waddenzee v. Staatssecretaris van Landbouw, 2004 E.C.R. I-7448. Cf. Case T-70/99, Alpharma Inc. v. Council of the European Union, 2002 C.F.I. II-3495 (“However a *preventive measure cannot properly be based on a purely hypothetical approach* to the risk, founded on mere conjecture which has not been scientifically verified. Rather, it follows from the Community Courts’ interpretation of the precautionary principle that a *preventive measure may be taken only if the risk, although the reality and extent thereof have not been fully demonstrated by conclusive scientific evidence, appears nevertheless to be adequately backed up by the scientific data available* at the time when the measure was taken.”) (emphasis added).

⁸³ See TFEU arts. 191–93.

States remain free to adopt more stringent environmental regulations in addition to the European laws.⁸⁴

Article 3 of the TEU restated the objective of environmental protection by including an element of external representation and cooperation.⁸⁵ Since the Lisbon Treaty, EU external action must seek to “foster the sustainable economic, social and environmental development of developing countries . . . [and] help develop international measures to preserve and improve the quality of the *environment* and the *sustainable development* of global natural resources.”⁸⁶ The explicit inclusion of climate change as an example of a regional or global environmental problem is a codification of existing EU practice rather than a true expansion of EU competences in this area.⁸⁷

The most significant change in terms of competence allocation between the European Union and the Member States came in the form of the new Energy title (Title XXI) of the TFEU. Rather than imparting additional powers on the European Union in this area, Title XXI consolidated its energy-related competences under the internal market,⁸⁸ competition,⁸⁹ and environmental protection.⁹⁰ Specifically, Article 194 of the TFEU incorporates the relationship between the energy sector, the internal market, and environmental protection. The competence to regulate under Article 194 is thus limited to the import and export of energy—any external energy policy would have to be conducted under Article 192 of the TFEU.⁹¹ The most important change with respect to energy, therefore, is its explicit categorization as a shared competence under Article 4(2)(i) of the TFEU.

⁸⁴ TFEU art. 193. However, national environmental laws may not create obstacles to free trade. *But see* TFEU art. 114 (stating that the EU has to take account of environmental aspects while regulating the internal market). Aside from creating potential obstacles to trade, the practice of minimum harmonization within European environmental law, which aims to accommodate the national differences in environmental circumstance and preference, complicate the setting of a uniform European standard. *See, e.g.,* Jan Jans et al., ‘Gold Plating’ of European Environmental Measures?, 6 J. EUR. ENVTL. & PLAN. L. 417 (2009).

⁸⁵ TEU art. 3 (“The Union shall . . . work for the sustainable development of Europe based on balanced economic growth and . . . a high level of protection and improvement of the quality of the environment. It shall promote scientific and technological advance. It shall . . . promote social justice and protection . . . solidarity between generations . . . In its relations with the wider world, the Union shall . . . contribute to peace, security, the sustainable development of the Earth, solidarity and mutual respect among peoples, free and fair trade, eradication of poverty and the protection of human rights . . .”).

⁸⁶ TEU art. 21 (emphasis added). The inclusion of sustainable development, however, does little to clarify the relative position of this aim as compared to others contained in the treaties when they are irreconcilable. *See* Hans Vedder, *The Treaty of Lisbon and European Environmental Law and Policy*, 22 J. ENVTL. L. 285, 288 (2010) (suggesting that the Court of Justice hints at a case-specific solution to this problem in its jurisprudence on the Common Agricultural Policy while foregoing a permanent prescriptive balancing formula between different objectives).

⁸⁷ More generally, the old articles 174–176 of the TEC on environmental policy have essentially been copy-pasted into the “new” articles, 191–193 of the TFEU. *See also* Vedder, *supra* note 86, at 290.

⁸⁸ Former TEC art. 95.

⁸⁹ Former TEC art. 81.

⁹⁰ Former TEC art. 175.

⁹¹ Vedder, *supra* note 86, at 291.

The latest treaty revision thus leaves European environmental policy in much the same position it has been in since the mid-1990s—mostly in the hands of the European institutions. The new Protocols on the exercise of shared competences,⁹² the delimitation of competences,⁹³ and subsidiarity and proportionality⁹⁴ are a sign of Member State resistance to EU dominance within areas of “shared” competence. Thus far, there has been little proof that either the ex ante or ex post checks on subsidiarity have been particularly helpful in increasing decentralization.⁹⁵ The European Parliament is the only institution that appears able to increase its influence on environmental policy based on the institutional changes in the Treaties.⁹⁶

II. A COMPETENCE-BASED APPROACH TO POWER SHARING IN THE EU

At first glance, the development of environmental policy within the European context appears to be one of increasing centralization at the European level. However, if we shift our focus from the norm-setting elements of environmental regulatory process to a broader view of regulation that includes implementation and enforcement, the division of power between the EU institutions and the Member States appears far more balanced. Most environmental policy is adopted through directives,⁹⁷ which leave significant room for the Member States to implement policies in whichever way they prefer. This Part takes the central role for Member States in the operationalizing of EU environmental policy as a starting point for an alternative “regulatory competence” approach to subsidiarity, by presenting additional criteria that look beyond the presence or absence of externalities and explicitly incorporating the role of Member States in implementation and enforcement.⁹⁸

A. Differentiating Regulatory Competences

“[I]t is important to emphasize that the issue is not whether environmental policy should be centralized or decentralized. . . . The issue for environmental federalism is the proper assignment of the various roles to the different levels of government.”⁹⁹

Legal and economic theory has long tried to answer the question of which regulatory body, at which degree of centralization, should carry out which reg-

⁹² TFEU Protocol (No. 25).

⁹³ TFEU Protocol (No. 18).

⁹⁴ TFEU Protocol (No. 2).

⁹⁵ See de Sadeleer, *supra* note 27, at 66.

⁹⁶ See Vedder, *supra* note 86, at 293–95.

⁹⁷ See Georges Kremlis & Jan Dusik, *The Challenge of the Implementation of the Environmental Acquis Communautaire in the New Member States*, 2 SEVENTH INECE CONFERENCE PROCEEDINGS 264 (2005), available at <http://perma.cc/3AGV-L7C9>.

⁹⁸ TEU art. 5.

⁹⁹ William Oates, *On Environmental Federalism*, 83 VA. L. REV. 1321, 1329 (1997).

ulatory task.¹⁰⁰ In providing a more comprehensive principle of subsidiarity, both legal and economic theories of federalism provide valuable insights into additional criteria for allocation, and the role of different actors in the regulatory process.

Within economic theory, Wallace Oates' Decentralization Theorem ("DT") summarizes a rich body of economic thought on the allocation of the power to tax and the power to spend.¹⁰¹ In its most basic form, the DT finds that, in the absence of spillovers (externalities), the local provision of public goods will be Pareto superior to centralized provision of public goods,¹⁰² given that centralized provision is presumed to be synonymous to a uniform level of output across jurisdictions.¹⁰³ The assumption that centralization equates uniformity is justified by reference to the fact that proximity of local governments to their constituents makes it so that they have superior knowledge of their preferences and conditions,¹⁰⁴ and that it might be politically costly to differentiate between jurisdictions at the central level.¹⁰⁵ Since the 1980s, the DT has

¹⁰⁰ Liesbet Hooghe & Gary Marks, *Types of Multi-Level Governance*, in HANDBOOK ON MULTI-LEVEL GOVERNANCE 17 (Henrik Enderlein et al. eds., 2010). It also features prominently in political debates. See, e.g., Charles de Secondat, Baron de Montesquieu, *THE SPIRIT OF THE LAWS* (Thomas Nugent trans., MacMillan 1949) (1748) (arguing that a separation of powers could function as a guard against tyranny).

¹⁰¹ See Wallace E. Oates, *Toward A Second-Generation Theory of Fiscal Federalism*, 12 INT'L TAX & PUB. FIN. 349 (2005); Paul A. Samuelson, *The Pure Theory of Public Expenditure*, 36 REV. ECON. & STAT. 387 (1954); Paul A. Samuelson, *Diagrammatic Exposition of a Theory of Public Expenditure*, 37 REV. ECON. & STAT. 350 (1955) (on public goods); see generally Kenneth J. Arrow, *The Organization of Economic Activity: Issues Pertinent to the Choice of Market Versus Non-Market Allocation*, in 1 JOINT ECONOMIC COMMITTEE, *THE ANALYSIS AND EVALUATION OF PUBLIC EXPENDITURES: THE PPB SYSTEM* (1970) (discussing the roles of the private and public sectors); RICHARD A. MUSGRAVE, *THE THEORY OF PUBLIC FINANCE* (1959); Richard A. Musgrave, *The Voluntary Exchange Theory of Public Economy*, 53 Q. J. ECON. 213 (1939) (discussing public finance).

¹⁰² Pareto optimality or efficiency refers to a state of the world where no more changes to the allocation of goods among a set of individuals could be made without at least one person being better off and no other individual worse off. If a situation is Pareto superior to another, it means that there are still Pareto improvements to be made—individuals could still be made better off without making another individual worse off. Pareto efficiency does not incorporate a sense of equity, or other socially desirable aspects of distribution. See Vilfredo Pareto, *On the Equilibrium of the Social System*, in THEORIES OF SOCIETY: FOUNDATIONS OF MODERN SOCIOLOGICAL THEORY 1288–92 (Parsons et al. eds., 1961).

¹⁰³ Oates, *supra* note 101, at 352–53 (“[U]nder certain . . . conditions, a varied pattern of local outputs in accordance with local tastes will be Pareto superior to an outcome characterized by a centrally determined, uniform level of output across all jurisdictions.”).

¹⁰⁴ See also Robert P. Inman & Daniel L. Rubinfeld, *Rethinking Federalism*, 11 J. ECON. PERSP. 43 (1997) (arguing that participation of interest groups and individuals may rise with increased decentralization and this increased political participation may place more pressure on the local regulator to conform to local preferences). Conversely, one may also argue that the likelihood of regulatory capture increases when the links between the regulator and regulated are closer. See George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971) (“[A]s a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit.”); Ernesto Dal Bó, *Regulatory Capture: A Review*, 22 OXFORD REV. ECON. POL'Y 203 (2006) (noting that more narrowly defined, regulatory capture refers to the process “through which regulated monopolies end up manipulating the state agencies that are supposed to control them”).

¹⁰⁵ Oates, *supra* note 101, at 353.

been enriched and challenged by economic scholarship from other related fields, such as political economy,¹⁰⁶ which introduced additional insights regarding the behavior of government agents and agencies,¹⁰⁷ the behavior of voters,¹⁰⁸ the introduction of principal-agent models of the public sector,¹⁰⁹ the role of information (asymmetries),¹¹⁰ and risk diversification.¹¹¹

Regrettably, the focus remains with competing jurisdictions, rather than competing competences, as centralization (or decentralization) is assumed to take place for the regulatory process as a whole. Consequently, economic theories of federalism appear to limit themselves to answering the question “[o]f which level of government is most likely to make efficient choices about environmental protection—that is, choices that balance all of the relevant benefits and costs,”¹¹² to the exclusion of questions of implementation and enforcement.

Within legal scholarship, the constitutional particularities of the relevant federal, or multi-level system are considered crucial in determining the allocation of competences across different levels of governance. This makes it difficult to extract general legal principles of competence allocation and limits the applicability of scholarly discourses to their domestic context. That said, extra-legal considerations have increasingly found their way into the legal discourse and legal scholars increasingly, though sometimes reluctantly,¹¹³ recognize economic factors such as externalities, economies of scale, and information costs

¹⁰⁶ Political economy theories will be discussed in more detail in a separate paper. The overview in this Article focuses on those parts of political economy that have particular implications for the economic theory of federalism.

¹⁰⁷ See, e.g., William A. Niskanen, *Nonmarket Decision Making: The Peculiar Economics of Bureaucracy*, 58 AM. ECON. REV. 293 (1968); William A. Niskanen, *Bureaucracy and Representative Government*, 68 AM. POL. SCI. REV. 1775 (1974) (introducing the concept of budget maximization); GEOFFREY BRENNAN & JAMES M. BUCHANAN, *THE POWER TO TAX: ANALYTICAL FOUNDATIONS OF A FISCAL CONSTITUTION* (1980) (describing the public sector as a “Leviathan” that seeks to better its own position and has characteristics of a monopoly); Wallace E. Oates, *Searching for Leviathan: An Empirical Study*, 75 AM. ECON. REV. 748 (1985) (noting that the success of decentralization in constraining the central government has been contested by empirical work).

¹⁰⁸ Oates, *supra* note 101, at 357 (showing a trade-off between local “accountability” (sensitivity to local preferences) and “a coordination of policies under centralization that serves to internalize interjurisdictional interdependencies” (capture of externalities)).

¹⁰⁹ Stephen A. Ross, *The Economic Theory of Agency: The Principal’s Problem*, 63 AM. ECON. REV. 134 (1973).

¹¹⁰ See, e.g., Alberto Alesina et al., *International Unions*, 95 AM. ECON. REV. 602 (2005) (characterizing the benefit of centralization as the possibility of exploiting economies of scale in the central allocation of policy responsibilities, and characterizing the costs of harmonization, principally, as those related to dealing with heterogeneity of preferences across the regions); Emanuela Carbonara et al., *Optimal Territorial Scope of Laws* 3 (Univ. of Minn. Law Sch., Legal Studies Research Paper No. 08-44, 2008) (“Economies of scope are present when creating and enforcing two or more policies together costs less than doing so separately.”).

¹¹¹ Alessandra Arcuri & Giuseppe Dari-Mattiacci, *Centralization versus Decentralization as a Risk-Return Trade-off*, 53 J. L. & ECON. 359, 360 (2010) (showing that centralization more often succeeds at delivering the right decision in terms of policy as compared to decentralized systems due to the possibility of pooling expertise at the central level, *ceteris paribus*).

¹¹² CONG. BUDGET OFFICE, 105TH CONG., *FEDERALISM AND ENVIRONMENTAL PROTECTION: CASE STUDIES FOR DRINKING WATER AND GROUND-LEVEL OZONE* ix (1997).

¹¹³ See generally *id.*

as impacting subsidiarity decisions.¹¹⁴ The most influential crossover between economic and legal approaches to subsidiarity is the race-to-the-bottom hypothesis.¹¹⁵ With respect to environmental regulation,¹¹⁶ this hypothesis predicts a downward spiral in the provision of environmental protection in case of the decentralization of environmental policymaking since localities will have incentives to lower their standards in order to attract more industrial investment to the detriment of environmental quality.¹¹⁷ Empirical verification of a race to the bottom has been difficult and there is increased skepticism as to its existence and mechanism. More recent scholarship on this issue shows a growing appreciation for the possibility of a fragmented regulatory process where federal norm setting may be complemented with state implementation, which creates a new type of race to the bottom/top.¹¹⁸ The latter development is an example of the increase in attention for the different roles played by distinct parts of the regulatory process within legal scholarship.¹¹⁹

This exceedingly brief overview of some of the main streams of economic and legal thinking on federalism aims to highlight the challenge that increased

¹¹⁴ Gráinne de Búrca has developed several questions regarding the relevant regulatory context that cover the most important trade-offs under a possible subsidiarity test. Of these five questions, at least two refer explicitly to economics-based arguments by raising the presence of interjurisdictional externalities, for instance through negative effects on the internal market and possible economics of scale. See Gráinne de Búrca, *Reappraising Subsidiarity's Significance after Amsterdam 31* (Harv. L. Sch. Jean Monnet Working Paper No. 7/99, 1999) ("How strong and how compelling are the internal-market requirements/competitive distortions/trade restrictions/cross-border effects in question? . . . What are the countervailing arguments in favour of Member State action, e.g., such as the decision of the states to specify expressly in the Treaty that they retain national competence over a closely related or overlapping policy area?").

¹¹⁵ Wallace E. Oates, *Fiscal Competition and European Union: Contrasting Perspectives*, 31 REG'L SCI. & URBAN ECON. 133, 137–38 (2001). The race-to-the-bottom hypothesis is based on the proposition that jurisdictions will compete with each other for investments and/or certain groups of voters/consumers by providing a relatively higher or lower level of public good provision than competing or surrounding jurisdictions. In a globalized economy, there need not be geographical proximity between jurisdictions for them to compete.

¹¹⁶ See, e.g., Koen Lenaerts, *The Principle of Subsidiarity and the Environment in the European Union: Keeping the Balance of Federalism*, 17 FORDHAM INT'L L.J. 846, 879–82 (1994); Richard B. Stewart, *Environmental Law in the United States and the European Community: Spillovers, Cooperation, Rivalry, Institutions*, 1992 U. CHI. LEGAL F. 39, 44–46; Roger van den Bergh et al., *The Subsidiarity Principle in European Environmental Law: An Economic Analysis*, in LAW & ECONOMICS OF THE ENVIRONMENT 121, 127–29, 131–32 (Erling Eide & Roger van den Bergh eds., 1996).

¹¹⁷ See, e.g., Wallace E. Oates & Robert M. Schwab, *Economic Competition Among Jurisdictions: Efficiency Enhancing or Distortion Inducing?*, 35 J. PUB. ECON. 333, 354 (1988); Wallace E. Oates, *A Reconsideration of Environmental Federalism*, in RECENT ADVANCES IN ENVIRONMENTAL ECONOMICS 9 (John A. List & Aart De Zeeuw eds., 2002) (discussing race to the bottom); Daniel C. Esty, *Revitalizing Environmental Federalism*, 95 MICH. L. REV. 350 (1996).

¹¹⁸ *Federal Expenditure Policy for Economic Growth and Stability: Hearings Before the Subcommittee on Fiscal Policy of the Joint Economic Committee*, 85th Cong. 216 (1957) ("Competition of communities offers not obstacles but opportunities to various communities to choose the types and scales of government functions they wish."); see also Oates, *supra* note 99, at 1326–27 (suggesting that the failure of states to implement stringent standards in certain areas where there is also federal regulation may be due to the fact that the federal standards are already excessively stringent).

¹¹⁹ See, e.g., SEC, IMPACT ASSESSMENT GUIDELINES 92 (2009), available at <http://perma.cc/3NHF-G4WK>.

fragmentation poses to these theories. As multi-level and federal arrangements have grown increasingly complex, it has become rare for one single actor to control the entire regulatory process, or to draw clear dividing lines between norm setting, implementation, or enforcement within the regulatory process. A legal principle such as the subsidiarity standard that ignores this fragmentation will have limited utility in answering the question of which level of government is best suited to perform which regulatory task. In rearticulating the theoretical frameworks offered by the economic and legal theories of federalism,¹²⁰ a competence allocation based approach therefore explicitly refers to the centralization and decentralization of individual regulatory competences—specifically norm setting, implementation, or enforcement.¹²¹

B. Defining Regulatory Competences

Given the enormous variety in institutional arrangements within legal systems, generally and across policy areas, it is difficult and arguably undesirable to provide a rigid definition of regulatory competences. However, in order to develop a framework of analysis, working definitions must be provided.

Norm setting establishes a *primary* regulatory norm that defines the recommended or prescribed behavior for regulated parties.¹²² Those responsible for setting these behavioral norms can be referred to as “norm setters” or “policy makers.” Norm setting forms the foundation of the regulatory process by defining the policy goal that will be pursued. Norm setting may also involve the choice of regulatory instrument, and the allocation of implementation and enforcement competences to other regulatory institutions. In practice, the allocation of competences is often predetermined by the constitutional setting of the regulatory activity, for instance the European Treaties. As a consequence, the norm setter is often subject to the constitutional rules of the game when deciding on the primary norm with respect to one particular policy area, like in EU environmental policy.

Implementation puts in place *secondary* regulatory norms, which set out more precise arrangements for both implementation and enforcement

¹²⁰ For an extensive overview of the literature, see generally VAN ZEBEN, *supra* note 29.

¹²¹ The term “regulation” has become a term of convenience referring to practically any activity, mostly of public actors but increasingly also private parties, which aims to influence behavior in order for it to conform to a given standard. Within legal scholarship, a more precise definition, which is commonly referred to, is limited to the regulatory methods of enforcement of conduct requirements or prohibitions by administrative, criminal, or civil actions backed by the coercive power of the state, rather than including also norm-based practices and institutions. See Richard B. Stewart, *Enforcement of Transnational Public Regulation 2* (Robert Schuman Ctr. for Advanced Studies, Working Paper No. 149, 2011) (“In defining regulation as involving enforcement of conduct requirements or prohibitions, this essay follows what Neil Walker has identified as the narrow view of regulation—one shared by most lawyers—as distinguished from a broader view of regulation that encompasses other norm-based practices and institutions that shape conduct in regular patterns, including much network regulation and elements of new governance.”) (footnote omitted).

¹²² *Id.* at 2–3.

processes.¹²³ Implementation thus operationalizes general norms, typically by further specification of rules through detailed (secondary) legislation. Depending on the preexisting institutional setting, this process may also include the creation, or earmarking, of specific agencies for the administration of the regulatory process. The dividing line between norm setting and implementation can be difficult to find. For example, if a policy maker decides that the use of renewable energy by consumers must increase by thirty percent over the next five years, the implementer must translate this norm into, *inter alia*, concrete standards for energy providers in terms of energy mix, a subsidy scheme for private parties, and decide on potential sanctions. If, however, the norm is self-executing—for instance, a maximum speed limit of ninety miles per hour—implementation may be limited to defining sanctions for non-compliance.

Enforcement refers to the monitoring of behavior in order to ensure compliance with set standards, and sanctioning of confirmed violations. Enforcement may take place through both formal and informal methods; the former refers primarily to legal processes involving administrative mechanisms, civil action or criminal prosecution,¹²⁴ whereas the latter includes softer mechanisms such as advice, negotiation, education, and persuasion.¹²⁵ Within this Article, enforcement will refer to public and private actions that induce compliance on the basis of a governmental mandate.¹²⁶ Enforcers are able to differentiate in their enforcement by allowing certain violations to go unpunished, but cannot change the norm against which the behavior is measured, or the prescribed penalty.

¹²³ *Id.*

¹²⁴ See also BENJAMIN VAN ROOIJ, REGULATING LAND AND POLLUTION IN CHINA: LAWMAKING, COMPLIANCE, AND ENFORCEMENT THEORY AND CASES 227 (2006) (“Enforcement is here defined as the state’s actions to detect violations to stop them, and to prevent further violation from occurring in the future.”).

¹²⁵ Despite the important role played by informal mechanisms, the focus within this Article will be on the formal methods of enforcement provided by the relevant legal framework within which regulation is developed. On informal enforcement, see CAROLYN ABBOT, ENFORCING POLLUTION CONTROL REGULATION: STRENGTHENING SANCTIONS AND IMPROVING DETERRENCE 8–9 (2009); BRIDGET HUTTER, COMPLIANCE: REGULATION AND ENVIRONMENT 14 (1997) (“[T]hese [informal enforcement techniques] were used by all law enforcement officials, but came into particular prominence in the regulatory arena.”). Ideally, enforcement serves to sanction both existing behavior and to deter actors from future violations.

¹²⁶ Compliance can also be increased through actions by private actors on their own behalf, for instance through tort proceedings. See, e.g., Steven Shavell, *Liability for Harm Versus Regulation of Safety*, 13 J. LEGAL STUD. 357, 365–66 (1984). These forms of private enforcement fulfill an important ancillary role to public enforcement, both through public and private institutions, and will be discussed where relevant. See Robert D. Cooter, *Three Effects of Social Norms on Law: Expression, Deterrence, and Internalization*, 79 OR. L. REV. 1, 21 (2000) (discussing the effects of social norms on law, specifically the fact that norms, rather than written laws, may induce changes in behavior and similarly that social norms may have several effects on law: expression, internalization, and deterrence); Josephine van Zeben, *The Untapped Potential of Horizontal Private Enforcement Within European Environmental Law*, 5 GEO. INT’L. ENVTL. L. REV. 241 (2010).

C. Beyond Externalities

In our restatement of the subsidiarity principle, we must now consider the normative criteria that inform the decision to allocate competences to the European or Member State level. As discussed above, Article 5 of the TEU identifies “reasons of scale or effect”—i.e., the presence of externalities—as the deciding factor in subsidiarity assessments, a threshold that, especially in the area of environmental policy, is easily overcome.¹²⁷ Even when there are strictly speaking no *environmental* externalities, such as transboundary air pollution, one can point at externalities through the creation of de facto trade barriers caused by divergent environmental protection laws.¹²⁸ This focus on externalities needs to be qualified in several ways.

First, the wording “reasons of scale or effect” can, and should, be interpreted as referring to more than the presence of externalities, i.e., the range of criteria on which allocative decisions are based should be expanded. Second, each regulatory competence should be assessed *individually* on the basis of these criteria (also referred to as “allocative criteria”). For example, the centralization of norm setting may not be sufficient to overcome an externalities problem if the related collective action problem is likely to resurface in the implementation and enforcement stage.¹²⁹ Relatedly, agencies and their respective competences interact with each other, which has important implications for competence allocation decisions. Decentralization of norm setting may be desirable when considered in isolation, but the interaction between agencies may undermine the positive effects of this initial allocation decision. Finally, instrument choice can affect the individual and interactive allocation of competences by increasing or decreasing the discretion of the relevant agencies.¹³⁰ The following subparts will expand these extensions of subsidiarity-based analysis in turn.

¹²⁷ De Sadeleer, *supra* note 27, at 63–64.

¹²⁸ *See id.* at 65 (referring to the need to ensure a high level of protection for the environment in all Member States and possible distortive effects on interstate competition).

¹²⁹ This second-level collective action problem can undermine the effectiveness of transboundary environmental policy and has been acknowledged in the academic debate, but has arguably been insufficiently explored. *See, e.g.,* Anne van Aaken, *Effectuating Public International Law Through Market Mechanisms?*, 165 J. INSTITUTIONAL & THEORETICAL ECON. 33, 53 (2009) (“Whereas the two-level game of lawmaking procedures is well acknowledged in the scholarship, the two-level game in the second stage, the compliance decision, has not been extensively analysed.”); *see also* Omri Ben-Shahar & Anu Bradford, *The Economics of Climate Enforcement* 5–39 (John M. Olin Law & Economics Working Paper No. 512, 2010), available at <http://perma.cc/XR4S-TK62>.

¹³⁰ Since the political-economy-related principal-agent dynamic is explicitly left out of the current discussion, the parties responsible for executing the norm-setting, implementation or enforcement competences are referred to as agencies rather than agents in order to side-step the discussion as to whom agency is owed to.

1. Allocative Criteria

The selection of allocative criteria is an inherently normative exercise. Within the context of this Article, economic and legal scholarship on federalism represent the main touchstones. The economic theory of federalism is most explicit in this regard, as it identifies several conditions under which decentralization may be preferred over centralization or vice versa. These conditions are: (1) the level of *heterogeneity* of the conditions and preferences in different localities; (2) the presence of *externalities*; and (3) the potential to achieve *economies of scale* and/or *scope*.¹³¹ From a legal perspective, the accountability and transparency of the regulatory system are important proxies. However, since the absence or presence of accountability and/or transparency is an effect of, rather than a reason for allocation, they will not feature within our expanded list of allocative criteria. This is not to say that accountability and transparency are not influenced by the allocation of competences at different levels. Yet, when transparency is negatively impacted by a centralized allocation of implementation, this could be addressed through the instrument choice or the adoption of procedural rules at the relevant governance level. Heterogeneity, externalities, and economies of scale/scope, on the other hand, can directly drive competence allocation.

Having identified these three criteria, their relative weight must be determined in order to use them as a basis for competence allocation decisions.¹³² A crucial factor in this balancing act is the nature of the regulated activity, or regulatory problem. The most important features of activities regulated under EU environmental law in light of the identified criteria are set out in Table 1. The questions set out in Table 1 force us to consider features of the regulated activity at hand, *beyond* the presence of externalities.

¹³¹ Aside from the combination that we propose based on the economic theory of federalism, numerous other trade-offs are possible. See, e.g., Inman & Rubinfeld, *supra* note 104, at 44 (“[T]hose who value a federal system typically do so for a mix of three reasons: it encourages an *efficient* allocation of national resources; it fosters *political participation* and a sense of the democratic community; and it helps to protect basic *liberties and freedoms*.”) (emphasis in original). The trade-off between efficiency and equity (distributional or otherwise) will not be part of the analysis of this paper. See, e.g., Robert W. Hahn & Robert N. Stavins, *Economic Incentives for Environmental Protection: Integrating Theory and Practice*, 82(2) AM. ECON. REV. 464, 499, 507 (1992) (“The consensus, at least within the realm of environmental policy, is that efficiency and equity ought to be evaluated separately, but there is no consensus on specific criteria that might be used to rank alternatives from an equity perspective.”); see also Nathaniel L. Keohane et al., *The Choice of Regulatory Instruments in Environmental Policy*, 22 HARV. ENVTL. L. REV. 313, 335–39 (1998) (discussing cost-benefit analysis in the context of environmental regulation).

¹³² See Lawrence H. Goulder & Ian W. H. Parry, *Instrument Choice in Environmental Policy*, 2 REV. ENVTL. ECON. & POL’Y 152, 152 (2008) (“Beyond the theoretical and empirical challenges involved, there is a sobering conceptual reality: the absence of an objective procedure for deciding how much weight to give to the competing normative criteria.”).

TABLE 1: RELEVANT FEATURES OF REGULATED ACTIVITY

<i>Allocative Criterion</i>	<i>Features</i>
<i>Externalities</i>	Does the regulated activity give rise to externalities, and if so, what is the geographical scope of the activity's effects, i.e., are these externalities transboundary?
<i>Heterogeneity</i>	Are the causes and/or effects of the regulatory problem relatively homogeneous among/within affected jurisdictions? Who is affected by the activity, and who is involved in the activity?
<i>Economies of Scale/Scope</i>	What information is needed to regulate this activity? ¹³³ Is the information more costly to gather at the central, rather than local, level? ¹³⁴ Can economies of scope be created when several activities are regulated together? Or when their regulation is integrated into a broader program?
<i>General</i>	Are the negative effects of the activity immediate or delayed? What type of risk is involved in the regulation of the activity? And how can we minimize the risk of making bad decisions regarding norm setting, implementation, and enforcement? ¹³⁵

2. Interacting Competences

It logically follows from this discussion on individual competence allocation that allocative decisions may result in a unified or fragmented regulatory system.¹³⁶ In a unified system, all competences are allocated at the same regulatory level, and we assume that there are no strategic interactions: There will either be a single regulator exercising all competences, or a number of different regulators at the same regulatory level whose actions are perfectly coordi-

¹³³ Robert W. Hahn, *Economic Prescriptions for Environmental Problems: How the Patient Followed the Doctor's Orders*, 3 J. ECON. PERSP. 95, 111–12 (1989) (“It might seem, for example, that if the problem is local, then the logical choice for addressing the problem is the local regulatory body. However, this is not always true. Perhaps the problem may require a level of technical expertise that does not reside at the local level, in which case some higher level of government involvement may be required.”).

¹³⁴ See, e.g., Jonathan H. Adler, *When Is Two a Crowd? The Impact of Federal Action on State Environmental Regulation*, 31 HARV. ENVTL. L. REV. 67, 77 (2007) (“Environmental knowledge, like economic knowledge, is highly decentralized. Specific knowledge about local ecological conditions . . . is more likely to be found at the local level than in a centralized bureaucracy. Due to the decentralized nature of knowledge, one might expect that environmental protections would be adopted first in those areas where local knowledge about the need for such protection is the greatest.”); see also James L. Huffman, *Making Environmental Regulation More Adoptive Through Decentralization: The Case for Subsidiarity*, 52 KAN. L. REV. 137, 137–38 (2005) (observing that “enforcement is inherently local”).

¹³⁵ See generally Arcuri & Dari-Mattiacci, *supra* note 111.

¹³⁶ The interaction between agencies is discussed at length in VAN ZEBEN, *supra* note 29. This Part does not go into the formal mapping of these interactions but rather highlights the possible implications of these interactions for competence allocation.

nated.¹³⁷ In case of fragmented competence allocation,¹³⁸ interactions will take place between the agencies which may undermine the initial allocation of competences in terms of its ability to accommodate the allocative criteria. Much of this interaction will depend on the relative position of the relevant agencies within their broader institutional setting. The type of agency is not a necessary consequence of unitary or fragmented competence allocation; the type of agency is an exogenous factor, independent from the type of competence allocation.

The aim of our exercise is to highlight three broad categories of agencies—“benevolent,” “shirking,” or “rent-seeking” agencies¹³⁹—which provide points of consideration rather than prescriptive recommendations in deciding on competence allocation. Benevolent agencies seek to maximize social welfare, which makes them a very desirable species of agency for the purpose of competence allocation and norm achievement.¹⁴⁰ Shirking agencies lack sufficient incentives to intervene or regulate, which will lead to an inefficient level of regulation. Whereas shirking agencies may not be lead by personal gain, rent-seeking agencies set out to create value for themselves, which is likely to lead to socially inefficient regulatory outcomes through over- or under-regulation.¹⁴¹ The determination of agency type is an empirical question, but based on

¹³⁷ This assumption could be relaxed, in which case the findings regarding the fragmented system can be applied also to the unified system. In the existing literature, a (competitive) interaction between regulatory agencies or levels is typically discussed as a manifestation of the constitutional framework underlying a specific federalist system, and refers to the competence to regulate a specific policy area as a whole, rather than to specific competences (competing jurisdictions). See Joseph F. Zimmerman, *Nation-State Relations: Cooperative Federalism in the Twentieth Century*, 31 *PUBLIUS* 15, 29–30 (2001) (“[T]he postulates of a more general federalism theory of national-state relations include dual, cooperative, and coercive elements, and emphasize the importance of the national political process to states and their political subdivisions in preventing enactment of or obtaining relief from preemption statutes, their implementing rules and regulations, and mandates and restraints, protection against the exercise of coercive powers by Congress, and enactment of statutes desired by states.”). For environmentally-based empirical work, see Hilary Sigman, *Transboundary Spillovers and Decentralization of Environmental Policies*, 50 *J. ENVTL. ECON. & MGMT.* 82, 96–97 (2005) (“[M]y empirical results suggest that federal standards do not prevent free riding. Allowing states discretion in implementation and enforcement of standards appears to be sufficient for free riding to continue. Second, problems with free riding must be weighed against the benefits of decentralization. Because free riding costs only \$17 million, it may not overcome the greater flexibility and informational advantages of decentralization. In addition, the optimal response to free riding may not be centralization, but rather decentralization in combination with more targeted responses to spillovers Finally, free riding may not be detrimental if pollution control policies are inefficient. Recent studies suggest that CWA may not pass a cost-benefit test. If so, the observed free riding could provide a net benefit by reducing overcontrol of pollution.”).

¹³⁸ Assuming two levels of governance—centralized (C) and decentralized (D)—six different fragmented scenarios can be constructed as the vectors (C, D, C), (C, C, D), (C, D, D), (D, C, C), (D, D, C), and (D, C, D).

¹³⁹ Francesco Parisi et al., *Two Dimensions of Regulatory Competition*, 26 *INT’L. REV. L. & ECON.* 56, 63–64 (2006).

¹⁴⁰ Social welfare refers to the overall welfare of society. See generally Amartya K. Sen, *Distribution, Transitivity and Little’s Welfare Criteria*, 73 *ECON. J.* 771 (1963); AMARTYA K. SEN, *CHOICE, WELFARE AND MEASUREMENT* (1982).

¹⁴¹ See, e.g., Ann O’M. Bowman, *Horizontal Federalism: Exploring Interstate Interactions*, 14 *J. PUB. ADMIN. RES. & THEORY* 535, 544–45 (1963) (arguing that horizontal interstate cooperation

the theoretical type of agency, we can predict how fragmentation may mitigate or aggravate some of the inefficiencies caused by shirking or rent-seeking agencies.

A first-best scenario of competence allocation would assume a benevolent agency with full information. In this case, the allocation of competences can be based purely on the respective advantages and disadvantages of centralization or decentralization of the individual competences since there will be no distortions by the agencies as their actions are fully informed and welfare maximizing. The result may be either a unitary or fragmented allocation of competences. For the other types of agencies, in second-best scenarios, certain types of allocations are better than others, depending on the type of regulatory authority exercised by the agency and the relationship between the competences.¹⁴² The general implications of competence interactions for norm achievement in a fragmented system depend on (1) the type of regulatory agency and (2) the type of regulatory competence (i.e., whether it is a permitting or restricting authority). The effects of agency type may be mitigated by instrument choice, as is discussed in the next sub-part.

3. Instrument Choice

Few attempts have been made to incorporate instrument choice into discussions on centralization or decentralization,¹⁴³ despite its influence on the ability of the regulatory system to accommodate *heterogeneous conditions and preferences* in terms of the regulated *activity*, and the ability to accommodate *heterogeneous conditions* with respect to the *regulatory costs*.¹⁴⁴ In our framework, instrument choice is considered part of the implementation process, since it forms part of the secondary norms that are needed to shape the regulatory system.¹⁴⁵ That said, in the norm-setting phase, some parameters may already be set for instrument choice—for example, a number of different tools may be

in the United States can offer an alternative to federal legislation). Bowman finds that the cooperative aspect of horizontal federalism is relatively unstable: “more capable states cooperate by engaging in multistate legal action, and less capable states cooperate by adopting uniform state laws.” *Id.* Moreover, “because self-interest is the impetus for state action, the likelihood of coordinated, collaborative action across the fifty states is always problematic.” *Id.*

¹⁴² Parisi formalized these relationships in a model, which considers the welfare implications of the institutional environment of competence allocation. See Parisi et al., *supra* note 139. In their model, “regulatory competence” refers to an agency’s ability to permit or restrict a certain activity, rather than a specific step in a larger regulatory chain. *Id.*

¹⁴³ See, e.g., Robert P. Inman & Daniel L. Rubinfeld, *Federalism*, in *ENCYCLOPEDIA OF LAW AND ECONOMICS* (Boudewijn Bouckaert & Gerrit De Geest eds., 2000) (arguing that decentralization is often the more efficient type of regulation in terms of regulatory costs); Hahn, *supra* note 133 (“In addition to selecting an appropriate mix of instruments, attention needs to be given to the effects of having different levels of government implement selected policies.”).

¹⁴⁴ See, e.g., Robert M. Friedman et al., *Environmental Policy Instrument Choice: The Challenge of Competing Goals*, 10 *DUKE ENVTL. L. & POL’Y F.* 327, 356 (2000) (“Another measure of cost-effectiveness is at the firm level—that is, whether the instrument allows a firm to minimize its costs for compliance.”).

¹⁴⁵ See also Sidney A. Shapiro & Robert L. Glicksman, *Goals, Instruments, and Environmental Policy Choice*, 10 *DUKE ENVTL. L. & POL’Y F.* 297, 325 (2000) (“Agencies cannot easily obtain the information necessary to determine which instrument minimizes implementation costs.”).

selected, from which the implementer may then choose to apply one or several tools.¹⁴⁶ Often several instruments are employed to deal with the same regulatory problem, especially if the regulatory problem is particularly complex and encompasses several market failures.¹⁴⁷ This may result in additional—positive and/or negative—interactions between the different tools. Given our focus on the interaction between competence allocation and instrument choice, we will assume the use of only one regulatory tool.

Within environmental law, the use of so-called market-based regulatory tools (such as taxes and tradable permits) has increased significantly over the past decades.¹⁴⁸ Market-based regulation is often juxtaposed with command-and-control regulation,¹⁴⁹ the most widespread category of regulation that broadly covers all types of regulation founded in the prohibition or prescription of specific behavior.¹⁵⁰ The aim of market-based instruments is to harness the potential of economic incentives and market dynamics in order to induce the potential violator/polluter to behave in the public interest.¹⁵¹ As mentioned, the choice between these different types of tools is typically based on the characteristics of the regulated activity and the costs of regulation. The cost-effectiveness of regulation, especially with respect to those costs made by the regulator,

¹⁴⁶ For example, this is the case in the context of the UNFCCC. See *supra* note 31.

¹⁴⁷ See generally Goulder & Parry, *supra* note 132, at 152.

¹⁴⁸ See generally Tom Tietenberg, *Tradable Permits in Principle and Practice*, 14 PENN. ST. ENVTL. L. REV. 251 (2006); Robert N. Stavins, *Policy Instruments for Climate Change: How Can National Governments Address a Global Problem?*, U. CHI. L. F. 293, 302–12 (1997) (providing an overview of market based policy instruments). On permit trading, see Brennan Van Dyke, *Emissions Trading to Reduce Acid Deposition*, 100 YALE L.J. 2707 (1991); Gary E. Marchant, *Global Warming: Freezing Carbon Dioxide Emissions: An Offset Policy for Slowing Global Warming*, 22 ENVTL. L. 623 (1992); Richard B. Stewart, *Environmental Quality as a National Good in a Federal State*, U. CHI. L. F. 199 (1997); William F. Pedersen, *Using Federal Environmental Regulations To Bargain for Private Land Use Control*, 21 YALE J. ON REG. 1 (2004); Richard R. Nordhaus & Kyle W. Danish, *Assessing the Options for Designing a Mandatory U.S. Greenhouse Gas Reduction Program*, 32 B.C. ENVTL. AFF. L. R. 97 (2005); Jennifer Yelin-Kefer, *Warming up to an International Greenhouse Gas Market: Lessons from the U.S. Acid Rain Experience*, 20 STAN. ENVTL. L. J. 221 (2001). On the use of regulatory taxes, see Bruce Yandle, *Creative Destruction and Environmental Law*, 10 PENN. ST. ENVTL. L. REV. 155 (2002); Robert R. M. Verchick, *Feathers or Gold? A Civic Economics for Environmental Law*, 25 HARV. ENVTL. L. REV. 95 (2001); Kenneth W. Swenson, *A Stitch in Time: The Continental Shelf, Environmental Ethics, and Federalism*, 60 S. CAL. L. REV. 851 (1987); E. Donald Elliott, *Causation and Financial Compensation: Goal Analysis Versus Institutional Analysis of Toxic Compensation Systems*, 73 GEO. L.J. 1357 (1985); Keohane et al., *supra* note 131; see also LUDWIG KRÄMER, EC ENVIRONMENTAL LAW 73–74, 340–42 (2007) (containing a general introduction to tradable permits in European environmental regulation).

¹⁴⁹ These mandates may take numerous shapes, including obligation of notification, authorization, prohibition, and obligation to act. For a description of these instruments, see generally KRÄMER, *supra* note 148.

¹⁵⁰ Robert N. Stavins, *Policy Instruments*, *supra* note 148, at 326 (“[W]e may reflect on the fact that despite thirty years of normative arguments from economists, the U.S. political system has typically taken a command-and-control regulatory approach, rather than an economic incentive-based approach to environmental problems.”).

¹⁵¹ See generally ARTHUR C. PIGOU, *THE ECONOMICS OF WELFARE* (4th ed. 1932) (introducing corrective taxes to discourage activities that generate externalities); JOHN H. DALES, *POLLUTION, PROPERTY, AND PRICES* (1968) (demonstrating that transferable property rights could be used to protect the environment against lower aggregate costs than command-and-control regulation); see also Hahn & Stavins, *supra* note 131, at 464.

largely depends on the costs of obtaining regulatory information. These costs vary depending on many factors, including the relative distance between the regulator and the regulated parties/problem, the number of regulated sources, the complexity of the regulated activity, and the expertise of the regulator in a given area. Economies of scale and scope may occur through the centralization of scientific research and decision-making. Also, economies of scope occur when policies reinforce each other, provided that the central regulator is aware of the most important environmental policies within the jurisdiction.

The information needed to create policy is different from that needed to implement or enforce policy. It has been argued that the economies of scale that are achieved through centralized policymaking are dwarfed by the diseconomies of scale in centralized administration of these rules.¹⁵² Information needed to ascertain compliance is predominantly local, making centralized enforcement potentially costly.¹⁵³ Increasingly, however, improved technological methods of data collection and the harnessing of private parties' knowledge are used to reduce these regulatory costs.¹⁵⁴

Conversely, instrument choice can aid the accommodation of heterogeneous compliance costs. If one is faced with heterogeneous compliance (i.e., abatement) costs, such as is the case for climate change, rigid technology standards may give rise to excessive compliance costs.¹⁵⁵ Flexibility is one of the key theoretical advantages of tradable permits as it allows regulated parties to create a situation-specific abatement strategy based on their marginal abatement costs. This flexibility should lead to a lower overall cost and the correct allocation of abatement costs to the companies or actors who have lowest marginal abatement costs.¹⁵⁶

¹⁵² Jonathan R. Macey & Henry N. Butler, *Externalities and the Matching Principle: The Case for Reallocating Environmental Regulatory Authority*, 14 YALE L. & POL'Y REV. 27, 45 (1996).

¹⁵³ Adler, *supra* note 134, at 77 ("Environmental knowledge, like economic knowledge, is highly decentralized. Specific knowledge about local ecological conditions . . . is more likely to be found at the local level than in a centralized regulatory bureaucracy."); *see also* Huffman, *supra* note 134, at 1378.

¹⁵⁴ Elinor Ostrom further qualifies these effects by stating that it is the regulatory cost involved, such as monitoring and enforcement costs, as well as costs connected to changing existing institutional arrangements that are important in judging institutional arrangements. *See generally* ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* (1990).

¹⁵⁵ *See, e.g.*, JOANNE SCOTT, *EC ENVIRONMENTAL LAW* 36 (1998) (explaining that in case of extremely detailed and overly prescriptive standards, dynamic efficiency may suffer and reduce incentives for technical innovation or other cost effective responses, which can lead regulated parties to comply in the most minimal way with the set standards); Maria Lee, *From Private to Public: The Multiple Roles of Environmental Liability*, 7 EUR. PUB. L. 375 (2001); JANE HOLDER & MARIA LEE, *ENVIRONMENTAL PROTECTION, LAW AND POLICY: TEXTS AND MATERIALS* 417 (2007); Cass R. Sunstein, *Political Equality and Unintended Consequences*, 94 COLUM. L. REV. 1390, 1390 (1994) (labeling command and control regulation as "futile or even self-defeating"). For more on the inefficiency of command and control regulation, *see generally* THOMAS H. TIETENBERG, *EMISSIONS TRADING: AN EXERCISE IN REFORMING POLLUTION POLICY* (1985); Richard B. Stewart, *Economics, Environment, and the Limits of Legal Control*, 9 HARV. ENVTL. L. REV. 1 (1985); *see also* Cameron Hepburn, *Regulation by Prices, Quantities, or Both: A Review of Instrument Choice*, 22 OXFORD REV. ECON. POL'Y. 226 (2006).

¹⁵⁶ *See, e.g.*, Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law: The Democratic Case for Market Incentives*, 13 COLUM. J. ENVTL. L. 171, 179 (1987-88).

Finally, instrument choice affects competence interaction, specifically between the implementer and the enforcer.¹⁵⁷ Two important factors that influence the relationship between implementer and enforcer are information and discretion: Enforcers will be influenced by the perceived likelihood that implementers will detect or correct their actions or inaction. This chance increases when the enforcer has less discretion, and/or the implementer has more information about its actions.¹⁵⁸ Flexible instruments are typically applied in situations where there is a high level of technical complexity, and/or heterogeneous circumstances among the regulated parties, which makes it difficult and costly to determine the right standard or type of activity for each party.¹⁵⁹ In EU environmental policy, the use of directives leaves a large margin of discretion regarding the method of implementation of regulatory norms. Countervailing effects of decentralized implementation are typically not included into subsidiarity decisions.

Another important factor is the possibility to externalize regulatory costs onto others. The likelihood of under-enforcement is increased when the costs of this under-enforcement can be externalized onto other parties. If enforcement takes the form of market oversight, the non-enforcement of certain types of market abuse will be externalized onto other market participants. In case of an international market with national or regional enforcers, the effects may take place outside of the jurisdiction of the enforcer, further lowering the interest of the enforcer in the enforcement result. The safeguards that can be put in place to limit these risks depend on the legal framework in which these competences are exercised and the way in which competences have been delegated to different actors.

In this Part, several additional perspectives were provided regarding the allocation of regulatory power within the European Union.¹⁶⁰ In moving beyond a one-dimensional view of subsidiarity as a test that centers on the presence or

¹⁵⁷ The relationship between norm setter and implementer is not influenced in the same way by instrument choice since we assume that the implementer, not the norm setter, makes the choice of instrument. The norm setter may give a range of regulatory tools to choose from, but this choice will not influence the relationship between the norm setter and the implementer in the way it does the implementer and enforcer relationship. Allowing for multiple interactions between the norm setter and the implementer, the range of regulatory tools allowed for by the norm setter could be influenced by the implementer/enforcer interaction once it becomes clear that certain instruments enhance sub-optimal results.

¹⁵⁸ This problem will manifest itself differently depending on the level of governance: Sovereign parties to an international agreement may be less responsive to pressure to enforce than states in a federal setting where there may be specific provisions for failure to enforce. See, e.g., Jean-Marc Burniaux et al., *The Economics of Climate Change Mitigation: How to Build the Necessary Global Action in a Cost-Effective Manner* 56 (OECD Econ. Dep't Working Papers, Working Paper No. 701, 2009) (arguing that the difficulty of enforcing international rules against sovereign states makes international carbon trading dependent on negotiation and consensus building).

¹⁵⁹ See generally Kenneth R. Richards, *Framing Environmental Policy Instrument Choice*, 10 DUKE ENVTL. L. & POL'Y 221 (2000) (discussing the allocation of regulatory and abatement costs).

¹⁶⁰ Within this Article, our discussion does not extend to the potential role of sub-national or regional actors. For further discussion of this important "fourth" level of European multi-level governance, see Carlo Panara & Michael R. Varney, *Introduction—Local Government in the EU Multi-Layered System of Governance*, in LOCAL GOVERNMENT IN EUROPE: THE 'FOURTH LEVEL'

absence of externalities, criteria such as heterogeneity of preferences and economies of scale have been introduced. In addition, differentiation between stages of the regulatory process allows us to make more precise evaluations by weighing advantages and disadvantages of centralization and decentralization at distinct points in the regulatory chain. Instrument choice can further aid to diffuse some of the disadvantages of centralization and decentralization for accommodating specific circumstances through higher levels of discretion or flexibility. Part III will show how the application of this competence-based approach to subsidiarity can provide additional bases to assess regulatory performance through a case study of the EU ETS.

III. POWER SHARING WITHIN THE EU ETS

A competence-based approach as developed in this Article provides a basis on which to critique power-sharing arrangements within, for instance, the European Union Emissions Trading Scheme (“EU ETS”). However, it does not explain existing arrangements; divergences between theoretically optimal power-sharing and real-life situations are better explained by considering competing political interests.¹⁶¹ The current analysis will thus focus more narrowly on the allocation of implementation and enforcement competences within the EU ETS, and how these have changed between the different trading phases, in order to highlight some of the problems caused by (1) focusing exclusively on the potential of externalities and (2) excluding implementation and enforcement from subsidiarity considerations.¹⁶²

As the EU ETS is geared towards the mitigation of climate change through the reduction of greenhouse gas emissions—a quintessential externalities problem—this is a good case study to reflect on the relevance and implications of additional allocation criteria. In addition, the marked differences in competence allocation between the first two trading phases of the EU ETS (2005–2007 and 2008–2012), and the revised third phase (2013 onwards), allows us to compare different institutional designs of the same regulatory instrument. After a brief overview of the regulatory context in which the EU ETS developed and the allocation of norm-setting competences in Part III.A, Part III.B., and III.C., will set out and analyze the allocation of implementation and enforcement competences, respectively.

IN THE EU MULTI-LAYERED SYSTEM OF GOVERNANCE xvii (Carlo Panara & Michael R. Varney eds., 2013).

¹⁶¹ VAN ZEBEN, *supra* note 29.

¹⁶² The implementation and enforcement of the EU ETS is highly technical. This Part will focus primarily on the power sharing between different actors, setting out only those technical legal rules that are relevant. As such, this overview is a shortened version of a more detailed study. *See generally id.*

A. Mitigating Climate Change through Carbon Trading

Climate change—caused largely by the human activities that emit greenhouse gases—has resulted in increasingly extreme weather patterns and an overall increase of global temperatures.¹⁶³ The disparate impact of climate change allows actors to externalize the costs of their local activities onto others, which means that those best placed to address the causes of climate change are not necessarily inclined to do so. Climate change pushes the boundaries of international and regional cooperation, relying on numerous institutions at various levels of government,¹⁶⁴ and introduces a high level of regulatory complexity.¹⁶⁵

The European Union has been a leader within the United Nations Framework Convention on Climate Change (“UNFCCC”) and the Kyoto Protocol, under which most international mitigation and adaptation strategies for climate change are undertaken.¹⁶⁶ The overarching policy objective put in place by the UNFCCC is the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”¹⁶⁷ The Kyoto Protocol attached concrete norms to this objective by committing the Annex I parties to the Convention to reduce their “aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A” to the assigned amounts.¹⁶⁸ These reductions are calculated pursuant to the quantified emission limitation and reduction commitments contained in Annex B and are aimed at reducing the overall emissions of greenhouse gases to at least five percent below 1990 levels in the commitment period 2008 to 2012.

The UNFCCC, Kyoto Protocol, and UN bodies play a limited role in the implementation and enforcement of the UNFCCC and Kyoto commitments.¹⁶⁹

¹⁶³ Rather than revisit the threshold question of whether the causal connection between human activity and climate change is real or whether climate change is in fact occurring at all, we accept that there is a need for regulation of this problem and focus on how best to mitigate and adapt to its effects.

¹⁶⁴ These developments run parallel to the more general trend of the emergence of so-called “post-national” rulemaking, which questions the traditionally central role of the state in regulation. See, e.g., Benedict Kingsbury et al., *The Emergence of Global Administrative Law*, 68 L. & CONTEMP. PROBS. 15 (2005); ANNE-MARIE SLAUGHTER, *A NEW WORLD ORDER* (2004).

¹⁶⁵ Complicating factors include uncertainties regarding the long-term effects and costs, see Richard G. Newell & William A. Pizer, *Uncertain Discount Rates in Climate Policy Analysis*, 32 ENERGY POLY 519 (2004) (giving a good overview of the difficulties regarding the pricing of current and future harm and mitigation costs), a broad range of contributing activities and potential regulated parties, and an unequal distribution of costs, see, e.g., Richard S. J. Tol, *The Economic Effects of Climate Change*, 23 J. ECON. PERSP. 29 (2009); Richard S. J. Tol et al., *Distributional Aspects of Climate Change Impacts*, 14 GLOBAL ENVTL. CHANGE 259 (2004).

¹⁶⁶ UNFCCC, *supra* note 31; Kyoto Protocol, *supra* note 31.

¹⁶⁷ UNFCCC, *supra* note 31, art. 2.

¹⁶⁸ Kyoto Protocol, *supra* note 31, art. 3(1).

¹⁶⁹ Since the United Nations’ police force is dependent on the political mandate and practical support of the UN Members, the political agreements made in the General Assembly and the Security Council (and at times through the Secretary General) are very difficult to enforce by the United Nations. Even for those Security Council resolutions that are self-executing or otherwise considered a rule of international law, the enforcement is dependent on the actions of the Mem-

Especially with respect to the mitigation of greenhouse gas emissions, implementation and enforcement takes place at the hands of the Parties.¹⁷⁰ Accordingly, the Protocol does not prescribe the use of any specific instruments. It does however, provide for several new market-based mechanisms to be developed, which are meant to stimulate green investments abroad and enhance cost-effectiveness: Emissions Trading,¹⁷¹ the Clean Development Mechanism (“CDM”),¹⁷² and Joint Implementation (“JI”).¹⁷³ The implementation of the Parties’ commitments through these mechanisms, and any additional national measures, is subject to mandatory reporting,¹⁷⁴ review,¹⁷⁵ and enforcement by the bodies of the Protocol.¹⁷⁶

Articles 3(1) and 4(1) of the Protocol provide that Parties may choose to achieve their emission-reduction goals both individually and jointly. Many of the EU Member States were included in Annex I of the Kyoto Protocol, which led to an agreement to combine efforts at the European level.¹⁷⁷ The European Union has implemented, and is making use of, all three of the market-based instruments mentioned in the Kyoto Protocol;¹⁷⁸ this Article focuses exclusively on implementation through emissions trading, i.e., the EU ETS. Under emissions trading, regulators set a *cap* that places an absolute limit on aggregate emissions for certain sectors. This cap is subdivided in a number of tradable permits that entitle the holder to engage in the regulated activity. In the context of the EU ETS, these permits convey the right to emit a certain amount of CO₂. All actors included in the system are assigned a number of permits, either through grandfathering (given at no cost)¹⁷⁹ or through auctioning. Once the

bers—for example, peacekeeping missions are formed by national forces. Arguably, the UN tribunals form an exception to this situation since they in fact enforce international law against parties. However, even in this case, the execution of judgments is often dependent on the cooperation of national governments.

¹⁷⁰ Kyoto Protocol, *supra* note 31, art. 3(1) (“The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts”); *id.* art. 4(1) (“Any Parties included in Annex I that have reached an agreement to fulfill their commitments under Article 3 jointly, shall be deemed to have met those commitments provided that their total combined aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts”).

¹⁷¹ *Id.* art. 17.

¹⁷² *Id.* art. 12.

¹⁷³ *Id.* art. 6.

¹⁷⁴ *Id.* arts. 5, 7, 13–17.

¹⁷⁵ *Id.* arts. 8, 22.

¹⁷⁶ *Id.* arts. 18, 27.

¹⁷⁷ Council Decision 2002/358/CE, Concerning the Approval, On Behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the Joint Fulfillment of Commitments Thereunder, 2002 O.J. (L130) 1 [hereinafter *Burden Sharing Agreement*].

¹⁷⁸ Council Directive 2003/87, 2003 O.J. (L 266) (EC) (establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61 (EC)); Council Directive 2004/101, 2004 O.J. (L338) 18 (EC) (amending Council Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol’s project mechanisms).

¹⁷⁹ Edwin Woerdman, Alessandra Arcuri & Stefano Cló, *Emissions Trading and the Polluter-Pays Principle: Do Polluters Pay Under Grandfathering?*, 25 INT’L REV. L. & ECON. 565 (2008).

initial allocation has taken place, the parties can trade the permits on the relevant market if they wish to emit more or less than permitted through their initial allocation.

In brief, within the context of the EU ETS, norm setting, implementation, and enforcement can be defined as follows: *Norm setting* involves the determination of emission-reduction norms for specific countries and/or regions, and the defining a set of instruments that can be used for implementation. *Implementation*, or the distribution of the norm, takes place through the translation of country or regional norms to specific reduction norms for certain industries/sectors of the economy. Also, an institutional and administrative structure must be created for allowance allocation and market creation. *Enforcement* includes the verification of behavior, penalization of non-compliance with respect to the individual allocation made as part of the implementation process, and market oversight.

1. Norm Setting Within Phase I and II of the EU ETS

Within the first two trading phases of the EU ETS, norm setting took place at the international level under the auspices of the UNFCCC and at the European level. The development of the EU ETS, though not exclusively created as a consequence of the Kyoto obligations,¹⁸⁰ was meant to aid the EU Member States in achieving their international objectives.¹⁸¹ As such, the fifteen Member States that were part of the EU at the time of signing¹⁸² committed to fulfilling their Kyoto obligations jointly.¹⁸³ They consequently adopted the Burden Sharing Agreement (“BSA”), or EU Bubble,¹⁸⁴ which established non-uniform country-specific targets to implement the joint eight percent reduction as compared to 1990 levels.¹⁸⁵ The BSA embodies EU norm setting during the first two phases.

¹⁸⁰ See, e.g., *Environmental Taxes and Charges in the Single Market*, COM (1997) 9 final (Mar. 3, 1997) (referring to the failed attempts of instituting a European-wide environmental tax).

¹⁸¹ *Preparing for Implementation of the Kyoto Protocol*, COM (1999) 230 final (May 19, 1999); *Green Paper on Greenhouse Gas Emissions Trading within the European Union*, COM (2000) 87 final (Aug. 3, 2000); *Proposal for a Directive of the European Parliament and of the Council Establishing a Scheme for Greenhouse Gas Emission Allowance Trading within the Community and Amending Council Directive 96/61/EC*, COM (2001) 581 final (Oct. 23, 2001).

¹⁸² The Member States in question are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

¹⁸³ Report of the Conference of the Parties on its eighth Session, Oct. 23–Nov. 1, 2002, 10, FCCC/CP/2002/7 (Mar. 28, 2003) (noting that “the European Community and its member States had notified the secretariat of their intention to fulfil [sic] their commitments under the Kyoto Protocol jointly in accordance with Article 4 of the Protocol.”).

¹⁸⁴ Burden Sharing Agreement, *supra* note 177.

¹⁸⁵ See Per-Olov Marklund & Eva Samakovlis, *What Is Driving the EU Burden-Sharing Agreement: Efficiency or Equity?*, 85 J. ENVTL. MGMT. 317 (2007). These Quantified Emission Limitation and Reduction Obligations vary from an *increase* of twenty-five percent relative to 1990 levels (Greece) to a *reduction* of twenty-eight percent (Luxembourg). *Id.* at 318 (Table 1). Non-compliance with these individual targets is immaterial, as long as this collective goal is reached. See Kyoto Protocol, *supra* note 31, arts. 4(5)–(6). Importantly, this does not exclude the Member States’ responsibility to fulfill their emission reductions under the EU Burden Sharing Agreement

Through enlargements in 2004 and 2007, twelve new Member States joined the European Union.¹⁸⁶ Ten of these Member States have individual reduction targets ranging between six and eight percent; Malta and Cyprus have no reduction targets since they were not Annex I parties.¹⁸⁷ Despite the changed composition of the European Union, the Burden Sharing Agreement remains unaltered. The blocking clause in Article 4(4) of the Kyoto Protocol prevents any changes to the EU BSA, either temporal or geographical.¹⁸⁸ This means that any responsibility of the new Member States to reduce their emissions is internal to the European Union only, and unrelated to the UNFCCC and Kyoto obligations. The European Union and the Member States may be held accountable, jointly and/or individually, for international obligations beyond emission reduction targets, such as reporting.¹⁸⁹ The changed composition of the European Union and developments within the international climate change framework are some of the developments which led to a change in norm setting competence allocation during the third EU ETS phase.

2. Norm Setting Within Phase III of the EU ETS

The European Union was committed to continuing the international process for climate change mitigation action and standard setting and contributed heavily to the negotiations leading up to the Copenhagen conference of 2009.¹⁹⁰ Despite these preparations, the Copenhagen conference failed to deliver the desired outcome—namely, a new set of legally binding emission reduction commitments.¹⁹¹ In addition, the mandate to create such legally binding commitments has been deleted from the Copenhagen Accord, meaning that the aim and scope of future negotiations has been severely limited.¹⁹² This failure to

under European law. See LEONARDO MASSAI, *THE KYOTO PROTOCOL IN THE EU: EUROPEAN COMMUNITY AND MEMBER STATES UNDER INTERNATIONAL AND EUROPEAN LAW* 220 (2011).

¹⁸⁶ Most recently supplemented with Croatia in 2013.

¹⁸⁷ Malta became an Annex I party in 2010, and Cyprus was added in Durban in 2011.

¹⁸⁸ Article 4(4) of the Kyoto Protocol reads as follows: “If Parties acting jointly do so in the framework of, and together with, a regional economic integration organization, any alteration in the composition of the organization after adoption of this Protocol shall not affect existing commitments under this Protocol. Any alteration in the composition of the organization shall only apply for the purposes of those commitments under Article 3 that are adopted subsequent to that alteration.” Kyoto Protocol, *supra* note 31, art. 4(4).

¹⁸⁹ *Id.* art. 24(3); TFEU art. 4(2)(e).

¹⁹⁰ Primarily through the 2007 Bali Road Map. See Hermann E. Ott, Wolfgang Sterk & Rite Watanabe, *The Bali Roadmap: New Horizons for Global Climate Policy*, 8 *CLIMATE POL’Y* 91 (2008).

¹⁹¹ For the voluntary reduction targets, see Copenhagen Accord, Appendix I; see also Joeri Rogelj et al., *Analysis of the Copenhagen Accord Pledges and Its Global Climatic Impacts—A Snapshot of Dissonant Ambitions*, 5 *ENVTL. RES. LETTERS* (2010); Daniel I. Stern & Frank Jotzo, *How Ambitious Are China and India’s Emissions Intensity Targets?*, 38 *ENERGY POL’Y* 6776, 6776 (2010) (“China is likely to need to adopt ambitious carbon mitigation policies in order to achieve its stated target, and that its targeted reductions in emissions intensity are on par with those implicit in the US and EU targets. India’s target is less ambitious and might be met with only limited or even no dedicated mitigation policies.”).

¹⁹² See Radoslav S. Dimitrov, *Inside Copenhagen: The State of Climate Governance*, 2 *GLOBAL ENVTL. POLITICS* 18, 22 (2010); see also DANIEL BODANSKY, *HARV. PROJECT ON INT’L CLIMATE*

reach international consensus on norm setting made the European Union's role with respect to EU ETS norm setting all the more important since the reduction targets, i.e., the cap, would now have to be set at the European Union, rather than international, level. Already in 2008, the 20/20 by 2020 climate and energy communication was published, which sets out important emission reduction and renewable energy goals for the EU Member States.¹⁹³

Legislative measures that implemented these goals were adopted in 2009 and include a revision of the EU ETS;¹⁹⁴ the Effort Sharing Agreement ("ESA"), which sets out national emission targets for non-ETS sectors in all Member States;¹⁹⁵ binding national renewable energy targets;¹⁹⁶ and a legal framework for the development and use of carbon capture and storage ("CCS").¹⁹⁷ The Commission also adopted a set of amended guidelines on state aid for the environment.¹⁹⁸ At the time that these measures were adopted, they were meant to signal the European Union's commitment to, and position in, the international negotiations for a post-Kyoto framework.¹⁹⁹ The European Union made it clear that it would be willing to reduce its emissions by "thirty percent in case of an international agreement, as compared to a unilateral twenty percent reduction target."²⁰⁰ The failure of the Copenhagen conference triggered a twenty-percent reduction commitment, despite efforts by the Commission to keep reduction targets at thirty percent.²⁰¹ With respect to the EU ETS, Article 9 of Directive 2009/29/EC introduces a EU-wide cap that replaces the National Allocations Plans in Phases I and II.²⁰²

3. A Competence Allocation Perspective on Norm Setting

A global approach to climate change mitigation is in line with the externalities that are inherent to climate change as a regulatory problem and failure

AGREEMENTS, THE INTERNATIONAL CLIMATE CHANGE REGIME: THE ROAD FROM COPENHAGEN (2010).

¹⁹³ 20/20 by 2020, *supra* note 31, at 2.

¹⁹⁴ Council Directive 2009/29, 2009 O.J. (L140) 63 (EC).

¹⁹⁵ Council Decision 406/2009 of 23 April 2009, On The Effort of Member States to Reduce Their Greenhouse Gas Emissions to Meet the Community's Greenhouse Gas Emission Reduction Commitments up to 2020, 2009 O.J. (L140) 136 (EC).

¹⁹⁶ Council Directive 2009/28, 2009 O.J. (L140) 16, 5 (EC) (on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77 and 2003/30)

¹⁹⁷ Council Directive 2009/31, 2009 O.J. (L140) 114 (EC).

¹⁹⁸ Commission Community Guidelines on State Aid for Environmental Protection 2008 O.J. (C82).

¹⁹⁹ Jon Birger Skjærseth & Jørgen Wettestad, *The EU Emissions Trading System Revised (Directive 2009/29/EC)*, in *THE NEW CLIMATE POLICIES OF THE EUROPEAN UNION: INTERNAL LEGISLATION AND CLIMATE DIPLOMACY* 65, 86 (Marc Pallemmaerts & Sebastian Oberthür eds., 2010).

²⁰⁰ Council Directive 2003/87, art. 1, 2003 O.J. (L275) (EC); Council Decision 406/2009, Preamble 3, arts. 1, 8, 2009 O.J. (L140) (EC).

²⁰¹ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Analysis of Options to Move Beyond 20% Greenhouse Gas Emission Reductions and Assessing the Risk of Carbon Leakage*, at 13, COM (2010) 265 final (May 26, 2010).

²⁰² See Council Directive 2003/87, art. 9, 2003 O.J. (L275) (EC).

to reach international consensus on climate change is problematic.²⁰³ With respect to power sharing in the European context, the European Union's growing prominence in this area is likely to continue post-2020.²⁰⁴ In lieu of global action, European norm setting fulfills the externalities interpretation of a competence based approach, as well as that of a subsidiarity approach. European norm setting also takes account of heterogeneity between the Member States through the Effort Sharing Decision ("ESD"). The ESD uses per-capita GDP to determine Member State reduction targets in order to ensure that emission reduction efforts and costs are distributed fairly among the Member States. The difference between low- and high-GDP-per-capita countries is particularly noticeable with respect to the non-ETS sectors where some low-GDP-per-capita countries are allowed to increase their emissions in order to allow for growth in sectors such as transport. The ESD also resulted in improved coordination between the norm and its distribution, and more generally the ability to integrate the EU ETS further into the climate change and energy policy of the European Union.²⁰⁵ This indicates that centralized norm setting may be justified under both a narrow and broad reading of the subsidiarity principle. In the next two subsections, we will raise similar questions with respect to implementation and enforcement.

B. Implementation and Enforcement in Phases I and II

Implementation and enforcement include substantive decisions regarding cap distribution to individual industries and actors, and procedural implementation rules²⁰⁶—as such they are crucial steps in shaping the EU ETS. During the first two phases of the EU ETS, implementation and enforcement largely took place at the Member State level, which, by allowing for inter-Member State variation, led to various problems.²⁰⁷

²⁰³ The failure of the international community to take coordinated and effective action on climate change has led to calls for a more bottom-up approach to the problem. Examples of alternative methods of regulation are presented by, e.g., Elinor Ostrom, *A Polycentric Approach for Coping with Climate Change*, WORLD BANK POLICY RESEARCH WORKING PAPER SERIES, No. 5095 (2008); Daniel H. Cole, *From Global to Polycentric Climate Governance*, 2 CLIMATE L. 395 (2011); Richard B. Stewart, Michael Oppenheimer & Bryce Rudyk, 32 STAN. ENVTL. L.J. 340 (2013).

²⁰⁴ The 20/20 by 2020 package runs until 2020 but some policy goals have already been expressed until 2050. See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *A Roadmap for Moving to a Competitive Low Carbon Economy in 2050*, COM (2011) 112 final (Mar. 8, 2011). Moreover, the next trading period for the EU ETS runs from 2013 to 2020, after which the next trading phase will start. See *Structural Reform of the European Carbon Market*, EUROPEAN COMMISSION, <http://perma.cc/SG78-MREQ> (discussing the trading phases and expected reforms in Phase 4).

²⁰⁵ See generally TFEU arts. 11, 13 (animal welfare), 194(2) (energy policy); NELE DHONDT, *INTEGRATION OF ENVIRONMENTAL PROTECTION INTO OTHER EC POLICIES: LEGAL THEORY AND PRACTICE* (2003).

²⁰⁶ Procedural rules are those provisions that speak to the process through which the substantive rules are achieved.

²⁰⁷ See *infra* Section III.B.3.

1. Implementation

The most important implementation measures for the EU ETS relate to allowance allocation—the distribution of the central cap to individual installations.²⁰⁸ Although the Directive was proposed, drafted, and adopted at the European level, cap-division was placed in the hands of the Member States through their control over the National Allocation Plans (“NAPs”).²⁰⁹ NAPs were the core feature of the EU ETS during the first and second trading phase. In these plans, each Member State set out the total quantity of allowances that it intended to allocate for the relevant trading period and how it would allocate them. The number of allowances available for allocation in each NAP depended on the respective Member State’s obligations as set out in the Burden Sharing Agreement.²¹⁰ NAPs covered only CO₂ emissions from installations in the ETS sectors,²¹¹ in line with the chosen step-by-step approach where select greenhouse gases in select sectors were regulated and this list was then gradually expanded.²¹²

The amount of allowances allocated through NAPs directly impacts reduction efforts in so-called non-ETS sectors since any emission reduction not required from the ETS sectors would shift to the non-ETS sectors. The non-ETS sectors typically had higher marginal abatement costs, which would make such a shift undesirable. However, activities in the non-ETS sectors were also more difficult to monitor, which created a perverse incentive for the Member States to rely more heavily on the non-ETS sectors for achieving their Kyoto commitments.²¹³ The pressure to ensure net emission reductions was eased further by

²⁰⁸ The EU ETS Directive 2003/87/EC orders (1) the earmarking of so-called “ETS sectors,” and (2) the subdivision of the national caps between specific actors within these ETS industries and so-called “non-ETS sectors.” The ETS sectors are those listed in Annex I of Council Directive 2003/87/EC. See Stefano Clò, *The Effectiveness of the EU Emissions Trading Scheme*, 9 CLIMATE POL’Y 227, 228 (2009) (“According to the cost-effectiveness approach, the ETS sectors should bear a higher emissions reduction burden than non-ETS sectors, rather than vice versa.”).

²⁰⁹ Council Directive 2003/87/EC, art. 9(1).

²¹⁰ Burden Sharing Agreement, *supra* note 177.

²¹¹ The GHGs covered by the Kyoto Protocol are CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride. The aggregate target is based on the CO₂ equivalent of each of the greenhouse gases. These gases are supposed to be monitored throughout the trading phases. Kyoto Protocol, *supra* note 31, Annex A. The greenhouse gases covered by the EU ETS, however, are those set out in Annex I of Council Directive 2003/87. For the first two phases, the EU ETS covers only CO₂; in Council Directive 2009/29, nitrous oxide and perfluorocarbons are added to Annex I.

²¹² This differential treatment was challenged by one of the companies covered by the System through a preliminary ruling procedure before the European Court of Justice. See Case C-127/07, *Société Arcelor Atlantique et Lorraine and Others*, 2008 E.C.R. I-09895, ¶¶ 47, 64–65 (holding that the difference in direct emissions between the steel sector and the non-ferrous metal sector were so substantial that different treatment was justified, especially in light of the step-by-step approach). With respect to the chemical sector, the main consideration was the sheer size of the industry, which would have made the initial administrative burden of the EU ETS politically unacceptable, and the advantages of excluding it at the start of the implementation of the scheme thus outweighed the advantages of inclusion. *Id.* at ¶53.

²¹³ For a full analysis of the relative role of the EU ETS in Member States’ programs to achieve their Kyoto objectives, see ALYSSA GILBERT ET AL., ANALYSIS OF THE NATIONAL ALLOCATION PLANS FOR THE EU EMISSIONS TRADING SCHEME (2004).

the linkage of the EU ETS with the Kyoto Protocol's flexible instruments—Joint Implementation and the Clean Development Mechanism—which allowed sectors to fulfill their obligations through reductions outside of the European Union.²¹⁴

The European Commission was able to review the NAPs on the basis of the eleven criteria set out in Annex III of Directive 2003/87/EC,²¹⁵ and reject them when considered incompatible with one or more of the criteria.²¹⁶ Once the Commission approved the NAP, the Member State could issue allowances to specific installations.²¹⁷ Only those installations that received a greenhouse gas emissions permit are assigned allowances by the Member States.²¹⁸ The GHG permit itself is not a tradable right, but rather a prerequisite for holding tradable GHG allowances. At least ninety-five percent (Phase I) or ninety percent (Phase II) of the tradable allowances were to be allocated free of charge by the Member States.²¹⁹ Member States were also responsible for the execution of the EU ETS through the creation of registries, and the broader administration of the system.²²⁰

2. Enforcement

The EU ETS enforcement processes include an additional level of governance—the private party level—due to its reliance on individual operators, who are required to monitor and report emissions yearly in line with set requirements.²²¹ Based on the resulting reports, third-party verifiers, typically private

²¹⁴ See generally Council Directive 2004/101, 2004 O.J. (L338/18); see also Skjærseth & Wettestad, *supra* note 199.

²¹⁵ Council Directive 2003/87, Annex III, 43.

²¹⁶ *Id.* art. 9(3), 36.

²¹⁷ *Id.* art. 11, 36. In order to provide guidance for the Member States as to the relative importance of the Annex III criteria and their interpretation, the Commission published a Communication. *Communication from the Commission on Guidance to Assist Member States in the Implementation of the Criteria Listed in Annex III to Directive 2003/87/EC Establishing a Scheme for Greenhouse Gas Emission Allowance and Amending Council Directive 96/61/EC, and on the Circumstances Under Which Force Majeure is Demonstrated*, COM (2003) 830 final (Jan. 1, 2004). Despite the fact that these Communications do not constitute a measure of secondary legislation as provided for in Article 288 of the TFEU, and thus have no general legal effect, they do bind the Commission in terms of their review discretion. See Case T-374/04, *Germany v. Comm'n*, 2007 ECR II-4431, ¶ 110.

²¹⁸ The application and assignment of permits takes place under Articles 4 and 5 of Council Directive 2003/87 and is left to the discretion of the Member States in line with the conditions of Article 6 of the Directive. One of the conditions of Article 6 is that the permitting authority must be satisfied that the operator is capable of fulfilling its monitoring and reporting obligations. Council Directive 2003/87, art. 6(1); see also *id.* art. 8.

²¹⁹ *Id.* arts. 10-11.

²²⁰ *Id.* art. 18 (“Member States shall make the appropriate administrative arrangements, including the designation of the appropriate competent authority or authorities, for the implementation of the rules of this Directive.”). The Commission also provided for standardized electronic databases. See Council Common Position (EC) No. 28/2003 of 18 March 2003, art. 19(1), 2003 O.J. (C 125 E).

²²¹ Council Directive 2003/87, art. 14; see also Commission Decision 2004/156 of 29 January 2004 Establishing Guidelines for the Monitoring and Reporting of Greenhouse Gas Emissions

firms,²²² then confirm firm compliance. The primary responsibility for monitoring and reporting thus lies with private actors—installations and then verifiers—but the Member States are tasked with ensuring their compliance.²²³ In case of non-satisfactory verification,²²⁴ the Member States can bar the operator from making further transfers of allowances until a report has been verified as satisfactory.²²⁵ If operators fail to surrender sufficient allowances, Member States must publish the names of operators in breach.²²⁶ Additionally, operators must pay an excess emissions penalty,²²⁷ and surrender the excess allowances in the next calendar year.²²⁸ The penalty for failure to surrender sufficient allowances has been harmonized in both trading phases, and the penalty increased from EUR 40 per ton/CO₂ equivalent in the first trading phase to EUR 100 in the second trading phase.²²⁹ These harmonized (minimum) penalties could be supplemented with additional penalties set by the Member States.²³⁰ Notably, no specific regulations were adopted regarding the supervision of the EU ETS market itself during the first and second trading phase.²³¹

Pursuant to Directive 2003/87/EC of the European Parliament and of the Council, 2004 O.J. (L 59/1).

²²² Council Directive 2003/87/EC, art. 15. The Directive does not set any specific standards as to the nature or person of the verifier, meaning that the verifier may be either a private or public body, provided that it is independent from the operator. *See id.* Annex V, 45–46. Monitoring plans must be approved by the competent authority of the relevant Member State based on the criteria contained in Annex I. *See* Commission Decision 2007/589, Annex I, ¶ 4.3, 2007 O.J. (L229), 12–13.

²²³ Council Directive 2003/87/EC, arts. 14(2)–(3). Large-scale changes were adopted with respect to the monitoring and verification procedures when the Commission guidelines in Decision 2004/156 were replaced by Decision 2007/589 of 18 July 2007. Commission Decision 2004/156; Commission Decision 2007/589 at §10.4.1.

²²⁴ Council Directive 2003/87/EC, Annex V, sub. 3. Non-satisfactory verification takes place when the verifier finds that the report contains omissions, misstatement or errors of more than five percent of the total figure, see Commission Decision 2004/156/EC, Annex I, ¶ 2(l), at 3 and ¶ 6, at 19.

²²⁵ *See* Council Directive 2003/87/EC, art. 15.

²²⁶ *Id.* art. 16(2); *see generally* S.G. Badrinath & Paul J. Bolster, *The Role of Market Forces in EPA Enforcement Activity*, 10 J. REG. ECON. 165 (1996) (showing an average decline of 0.43% in firm value following EPA judicial actions, and larger declines for repeat offenders).

²²⁷ Council Directive 2003/87/EC, art. 16(3).

²²⁸ *Id.*; *see generally* Tietenberg, *supra* note 148 (arguing that penalties should be carefully constructed to address the danger posed by noncompliance; this does not imply that penalties have to be unrealistically high but can incorporate a financial penalty for noncompliance as well as the forfeiture of a number of future allowances to compensate).

²²⁹ Council Directive 2003/87/EC, arts. 16(3), (4).

²³⁰ *Id.* art. 16(1). Member States must notify the Commission of these penalties.

²³¹ The Community Independent Transaction Log (“CITL”) provides annual data on the independently verified emissions of all installations covered by the EU ETS. *See* Commission Regulation No. 2216/2004 of 21 December 2004 for a Standardized and Secured System of Registries Pursuant to Directive 2003/87/EC of the European Parliament and of the Council and Decision No. 280/2004/EC of the European Parliament and of the Council, 2004 O.J. (L 386) 1, Annex XVI 4(a). The Commission is responsible for examining whether the market for emission allowances is sufficiently protected from insider dealing and market manipulation and, if appropriate, shall bring forward proposals to ensure such protection. Council Directive 2003/87, art. 12(1a). The first effort in this examination was completed on December 21, 2010. Communication from the Commission to the European Parliament and the Council, *Towards an Enhanced Market Oversight Framework for the EU Emissions Trading Scheme*, COM (2010) 796 final (Dec. 21, 2010) [hereinafter Commission Communication COM (2010) 796 final].

3. Allocation of Implementation and Enforcement Competences

Through the Burden Sharing Agreement, the Member States placed important cap-division competences in the hands of the European regulator, rather than setting and fulfilling their country targets individually. Consequently, the founding legislation for the EU ETS—Directive 2003/87/EC—is a European instrument, created and adopted by European institutions.²³² Nevertheless, the individual Member States retained control of the most important implementation and enforcement competences. During the first two trading phases, the European institutions played coordinating and facilitating roles, without substantial means of correcting national implementation and enforcement strategies. This decentralized allocation strategy carried the risk that Member States would externalize their mitigation costs onto others. The Commission was acutely aware of this risk and interpreted heterogeneity in implementation accordingly, despite the fact that some variation could have been explained, and warranted, by diverging national circumstances. This led to tensions between the European and national level that came to a head in the resulting National Allocation Plan litigation, most of which concerned cap distribution.²³³ Despite its limited mandate under Annex II of the Directive, the Commission persisted in its review, and rejection, of NAPs whenever over-allocation was suspected.²³⁴ Member States brought their grievances to the General Court, requesting the annulment of Commission decisions.²³⁵

²³² Council Directive 2003/87/EC.

²³³ One of the first cases on this issue was *Germany v. Commission*, in which the Commission questioned Germany's decision to include an ex-post adjustment mechanism in its NAP, which would allow the German government to take back allowances from installations under five different scenarios and to place them in the new entrants reserve. Case T-374/04, *Germany v. European Commission*, [2007] E.C.R. II-4431. According to the Court of First Instance ("CFI", now General Court), the Commission did not prove that the German ex-post adjustment mechanism was incompatible with criteria 5 and 10 of Annex III to Directive 2003/87/EC. Specifically, the CFI held that the arguments of the Commission were neither "factually substantiated nor legally well founded." *See id.* at ¶¶ 151–64. Regarding the incompatibility with criterion 10 of Annex III, the Court applied a four-part analysis (previously applied in *Lagardere and Canal v. European Commission*, [2002] E.C.R. II-4825) consisting of a literal interpretation; a historical interpretation; a contextual interpretation; and a teleological interpretation. *Id.* at ¶¶ 92–150. The mere fact that "the practice of ex-post adjustments are liable to deter operators from reducing their production volume and, therefore, their emission rates is not sufficient to call into question the adjustments' legality in light of the directive's objectives as a whole." *Id.* at ¶ 148.

²³⁴ *See, e.g.*, Case T-178/05, *United Kingdom v. European Commission*, [2005] E.C.R. II-4807. Here, the CFI had to decide whether the Commission was entitled to reject amendments to a National Allocation Plan, if these amendments had not previously been included in the provisional NAP that was previously submitted by a Member State. *Id.* The Court confirmed that there were two mandatory rounds of public consultation: one before the NAP is completed, and one after the Commission has authorized the allocation but before the national decision of allocation. *Id.*

²³⁵ Case T-499/07, *Bulgaria v. Commission*, [2008] O.J. (C64) 50; Case T-500/07, *Bulgaria v. Commission*, [2008] O.J. (C64) 51; Case T-483/07, *Romania v. Commission* [2008] O.J. (C51) 56; Case T-484/07, *Romania v. Commission*, [2008] O.J. (C51) 57; Case T-369/07, *Latvia v. Commission*, [2011] E.C.R. II-01039.

In September 2009, the landmark cases of *Poland v. Commission* and *Estonia v. Commission* were decided in favor of the Member States.²³⁶ In these cases, Poland and Estonia requested the annulment of the Commission's decisions that had instructed them to reduce the amount of allocated emissions in their NAPs by 26.7% and 47.8%, respectively.²³⁷ Specifically, Poland and Estonia argued that the Commission had exceeded its powers under the Directive by replacing the data and economic model used by Poland and Estonia with its own to conclude that the NAPs were incompatible with the Directive and consequently impose a ceiling for the total quantity of allowances in the NAPs.²³⁸ The Court confirmed that it was the Member States' prerogative to decide the total quantity of allowances, and therefore annulled the Commission's decisions.²³⁹

The Commission was forced to take a new decision on each National Allocation Plan, which led to a political struggle between the Commission and the Member States. The Commission initially rejected Poland and Estonia's NAPs again, on different legal grounds.²⁴⁰ After revision of the NAPs, the Commission approved them on April 19, 2010—two years into the second trading phase.²⁴¹ The new Polish National Allocation Plan maintains the total amount of allowances at 208.5 Mt per year, the amount that Poland had initially contested.²⁴² Alongside this political process, the Commission also launched an appeal with the Court of Justice.²⁴³ The Court of Justice dismissed the appeals in both cases, emphasizing that the method of allowance calculation was part of the discretion of the Member States, and not subject to harmonization at the European level.²⁴⁴ Overall, Member States successfully resisted attempts by the Commission to indirectly tighten their national caps during the first two trading

²³⁶ Case T-183/07, *Poland v. Commission*, [2009] E.C.R. II-03395; Case T-263/07, *Estonia v. Commission*, [2009] E.C.R. II-03463.

²³⁷ *Poland*, E.C.R. II-03395; *Estonia*, E.C.R. II-03463; Giuseppe Dari-Mattiacci & Josephine van Zeben, *Legal and Market Uncertainty in Market-Based Instruments: The Case of the EU ETS*, 19 N.Y.U. ENVTL. L. J. 415, 436 (2012).

²³⁸ *Poland*, E.C.R. II-03395 at ¶¶ 120–121; *Estonia*, E.C.R. II-03463 at ¶¶ 42–43.

²³⁹ *Poland*, E.C.R. II-03395 at ¶ 126; *Estonia*, E.C.R. II-03463 at ¶ 114.

²⁴⁰ Press Release, European Commission, Emissions Trading: Commission Takes New Decisions on Estonian and Polish National Allocation, IP/09/1907 (Dec. 11, 2009), available at <http://perma.cc/Y8J2-DEAQ>.

²⁴¹ Press Release, European Commission, Emissions Trading: Commission Accepts Polish National Allocation Plan for 2008–2012, IP/10/442 (Apr. 19, 2010), available at <http://perma.cc/6NEN-YXYD>.

²⁴² *Id.*

²⁴³ Josephine van Zeben, *Emissions Trading Schemes and Division of Competence Between Commission and Member States: Commission v. Poland and Commission v. Estonia*, 50 COMMON MKT. L. REV. 231, 240–42 (2013).

²⁴⁴ Case C-504/09, *Comm'n v. Poland*, 2012 O.J. C151/2; Case C-505/09, *Comm'n v. Estonia*, 2012 O.J. C151/3 ¶¶ 61–69 (upholding General Court's conclusion that "the review power conferred on the Commission under Article 9(3) of Directive 2003/87 is limited to review of the conformity of the data in each national allocation plan with the criteria set out in Annex III to that directive and that the Commission is not entitled to replace the data inserted by the Member State in its plan with its own data").

phases.²⁴⁵ This power struggle did, however, result in increased uncertainty regarding the number of allowances on the market and a correspondingly less stable carbon price.²⁴⁶

The role of Member States in enforcement was based on the perception that emissions data were more easily collected at the local level. Moreover, preexisting administrative capacity at the national level could be used to create an infrastructure for enforcement. There were however several blind spots in the initial enforcement strategy for the EU ETS, for instance, regarding differences in Member State capacity and willingness to enforce, and the lack of recognition of market oversight as part of the enforcement tasks of the Member States, which ultimately led to cases of VAT fraud²⁴⁷ and allowances theft.²⁴⁸ The latter caused the temporary closure of several of the European registries, which meant a complete stop in trading for several days.²⁴⁹ In December 2010, the Commission released a statement, together with a Communication,²⁵⁰ in which it acknowledged that the EU ETS market had become “a potential target

²⁴⁵ There have also been attempts by private parties to influence implementation—particularly allowance allocation decisions—through actions before the European courts, but this has been largely unsuccessful. A large number of cases concerned the Commission decisions regarding Member States’ NAPs; private parties would object to a reduction of the number of allocatable allowances. These cases have all failed based on lack of standing of these parties to appeal a Commission Decision. The Court has held that since it is the allocation decision taken by the Member States once the NAP has been approved—and not the actual NAP—which impacts the companies’ rights, these companies are not considered “individually concerned” with respect to the Commission decisions. *See, e.g.*, Case T-387/04, *EnBW Energie Baden-Württemberg v. Comm’n of the European Communities*, 2007 E.C.R. II-1201; Case T-27/07, *U.S. Steel Košice v. Comm’n*, 2007 E.C.R. II-128.

²⁴⁶ *See* Dari-Mattiacci & van Zeven, *supra* note 237, at 439–40. The Commission also recognized that the legal and political disagreement regarding NAPs created elements of uncertainty and lack of predictability negatively affecting the market price and its stability. *See* European Commission, *Impact Assessment Accompanying Directive 2003/87/EC so as to Improve and Extend the EU Greenhouse Gas Emission Allowance Trading System*, at 90–91, COM (2008) 16 final (Jan. 23, 2008).

²⁴⁷ *See* *Communication from the Commission to the European Parliament and the Council Towards an Enhanced Market Oversight Framework for the EU Emissions Trading Scheme*, at 6, COM (2010) 796 final (Dec. 21, 2010); *see also* *EU Moves to Tackle Carbon Trading Fraud*, EURACTIV (Oct. 1, 2009), <http://perma.cc/RL2U-FBMP>; *EU Approves Revised ETS Rules to Combat Cyber Crime*, EURACTIV (Feb. 18, 2010), <http://perma.cc/V4GE-N8C8>.

²⁴⁸ This “theft” occurred through so-called “phishing attacks.” *See* Commission Communication, COM (2010) 796 final, at 6; *see also* *Great Carbon Theft May Have Netted € 28m of Permits*, EURACTIV (Jan. 21, 2011), <http://perma.cc/9WTM-EGYM>. Another problem has been the recycling of CERs. Commission Communication, COM (2010) 796 final, at 6.

²⁴⁹ *See* Press Release, European Commission, Statement on the Suspension of the EU ETS National Registries (Jan. 25, 2011), *available at* <http://perma.cc/QSM2-AKZW>; Press Release, European Commission, Update on Transitional Measure: EU ETS Registries of Cyprus, Hungary, Liechtenstein and Malta to Resume Operations on 20 April (Apr. 18, 2011), *available at* <http://perma.cc/4G6Z-77BJ>; *see also* Press Release, European Commission, Update on Transitional Measure: EU ETS Registries of Belgium, Estonia and Luxembourg to Resume Operations on 24 February (Feb. 22, 2011), *available at* <http://perma.cc/YS2G-TTVW>; Press Release, European Commission, Update on Transitional Measure: Spain’s EU ETS Registry to Resume Operations on 16 February (Feb. 14, 2011), *available at* <http://perma.cc/BC6A-EAD6>.

²⁵⁰ *See generally* Commission Communication, COM (2010) 796 final.

of fraudulent practices” and that as such should be “subject to appropriate and effective regulatory oversight.”²⁵¹

The decentralization of enforcement competences suggests a restrictive interpretation of the concept of externalities under the subsidiarity principle; the externalities resulting from under-enforcement of market oversight regulation could have supported a centralized, rather than decentralized, approach to enforcement within the EU ETS. However, these regulatory externalities appear to be viewed as distinct from externalities resulting from the regulated activity. This implies that the subsidiarity principle’s focus on externalities limits both the range and *scope* of criteria applied to centralization/decentralization decisions. The experiences from the first two phases of the EU ETS underline the importance of assessing each stage of regulation separately in light of a broader conception of subsidiarity that includes heterogeneity and economies of scale and scope, as well as a broader conception of externalities. In a fragmented system, where competences within one regulatory process are divided among actors at different levels of governance, externalities may resurface at different stages of the regulatory process. In the EU ETS, we witnessed this both in implementation and enforcement as Member States attempted to externalize costs of their lenient caps or under-enforcement onto other Member States.

C. Implementation and Enforcement in Phase III

Fueled by both internal and external pressures on the EU’s climate change policy,²⁵² extensive review of the EU ETS took place in 2009. This led to a much-changed system of implementation and enforcement in the third trading phase, which started in 2013.

1. Implementation

The revised EU ETS Directive abolishes the use of National Allocation Plans, which shifted the power to administer the now-European cap to the European level.²⁵³ In addition, auctioning gradually phases out grandfathering as the main allowance allocation mechanism.²⁵⁴ The first year of auctioning (2013) starts with a fifty percent auctioning rate for installations (“EUAs”) and fifteen

²⁵¹ Press Release, European Commission, Emissions Trading: Statement by Commissioner for Climate Action Connie Hedegaard on Regulatory Oversight of the EU Carbon Market (Dec. 21, 2010), available at <http://perma.cc/XTQ3-MQ5C>. The accompanying Communication is set to start work on a legislative proposal, which is expected to be proposed in 2011 and will take effect for the third trading phase. See Commission Communication, COM (2010) 796 final, at 3.

²⁵² See *supra* Section III.A.2.

²⁵³ Council Directive 2003/87/EC, art. 9, 2003 O.J. (L 275) 35.

²⁵⁴ Press Release, European Commission, Emissions Trading: Questions and Answers on the revised EU Emissions Trading System (Dec. 17, 2008), available at <http://perma.cc/3UKC-QKG2> (“The level of auctioning of allowances for non-exposed industry will increase in a linear manner as proposed by the Commission, but rather than reaching 100% by 2020, it will reach 70%, with a view to reaching 100% by 2027”).

percent auctioning rate for EU aviation allowances (“EUAAAs”).²⁵⁵ The division of the central cap determines the amount of allowances that individual Member States are able to auction.²⁵⁶ The heterogeneous economic circumstances of the Member States necessitated a balancing of two policy aims:

- (1) Preventing differentiation between the same ETS industries in different Member States as this could lead to distortions of the internal market and lessen economic efficiency;²⁵⁷
- (2) Ensuring solidarity with the so-called “low GDP per capita” Member States, which could be inequitably affected by the introduction of auctioning.²⁵⁸

Ultimately, Article 10 of the EU ETS Directive seeks to incorporate these aims by assigning eighty-eight percent of the total quantity of allowances among the Member States in shares identical to the share of verified emissions under the ETS for 2005, or the average of 2005–2007;²⁵⁹ ten percent of the total quantity among the low GDP per capita Member States for the purpose of solidarity and growth; and two percent of the total quantity among Member States whose greenhouse gas emissions in 2005 were at least twenty percent below their respective Kyoto levels (the “Kyoto-bonus”).²⁶⁰

In addition to the centralization of the cap, the Commission also sought to harmonize the auctioning practice of Member States through Regulation 1031/2010.²⁶¹ Initially, the Commission proposed three formats for the auctioning process:²⁶² a centralized approach where auctions are conducted on behalf of all Member States through a single EU-wide auction process;²⁶³ a coordinated approach consisting of a limited number of auction processes set up by Member States either individually or jointly;²⁶⁴ and a hybrid approach, which would di-

²⁵⁵ Press Release, European Commission, Emissions Trading: Questions and Answers on the EU ETS Auctioning Regulation (July 16, 2010), available at <http://perma.cc/P5VZ-9G6P>. More generally, it should be noted that from 2013 onwards, the scope of the ETS was extended to include other sectors and greenhouse gases. *Id. Inter alia*, more CO₂ emissions from installations producing bulk organic chemicals, hydrogen, ammonia and aluminum were included, as were nitrous oxide (“N₂O”) emissions from the production of nitric, adipic and glycolic acid production, and perfluorocarbons from the aluminum sector. *Id.*

²⁵⁶ European Commission, COM (2008) 16 final.

²⁵⁷ Commission Proposal, COM 30 (2008) 17.

²⁵⁸ The Commission used several models to graph the different (auctioning) scenarios and consider the impacts on the different countries. *See* European Commission, *Impact Assessment Accompanying the Package of Implementation Measures for the EU’s Objectives on Climate Change and Renewable Energy for 2020*, at 32–69, COM (2008) 16 (Jan. 23, 2008). For the GDP data used for the purposes of revision of Directive 2003/87/EC, see *id.*

²⁵⁹ *See* Commission Proposal, COM 30 (2008) 17, art. 10(2). The division of the total number of allowances can be found in Article 10 of Council Directive 2009/29/EC.

²⁶⁰ *Id.* at Annex IIb (for this distribution).

²⁶¹ Commission Regulation 1031/2010, 2010 O.J. (L 302).

²⁶² European Commission, *Impact Assessment Accompanying the Commission Regulation on the Timing, Administration and Other Aspects of Auctioning of Greenhouse Gas Emission Allowances Pursuant to Article 10(4) of Directive 2003/87/EC*, SEC (2010) 1369 (Feb. 8, 2010).

²⁶³ *Id.* at 10.

²⁶⁴ *Id.*

vide the auction process in two by collecting bids through individual trading places in predetermined timeslots after which a clearing price would be determined.²⁶⁵ Under the hybrid approach, payment and delivery would be completed through the individual trading places and revenues would automatically flow to the Member States.²⁶⁶ The Commission expresses a strong preference for the centralized approach, citing the efficiency of this option.²⁶⁷ The Commission's efforts failed as some of the key Member States—the United Kingdom, Poland, Germany,²⁶⁸ and Spain—preferred to control their own auction and opted out of the common platform.²⁶⁹ These Member States will still have to submit detailed documentation regarding the identity and operating rules of the auction platform to the Commission, which has limited authority to review the notifications.²⁷⁰ It is unclear what the nature of the Commission's review power will be, but there is mention of "modified notifications," which may mean that the Commission's power review are similar to those under the former NAP system.²⁷¹

The execution of EU ETS implementation remains in the hands of the Member States,²⁷² supplemented only by additional responsibilities regarding the administration of aviation activities, which are included in the EU ETS from 2012 onwards.²⁷³ Member States are also responsible for the administration of auctions. Each Member State must appoint an auctioneer who shall receive and distribute the auction proceeds to the Member State.²⁷⁴ Member States are empowered to determine the use of revenues generated from the auctioning of allowances, as provided by Article 10(3) of Directive 2003/87/EC.²⁷⁵

²⁶⁵ *Id.*

²⁶⁶ *Id.*

²⁶⁷ *Id.* at 23.

²⁶⁸ Germany also raises several subsidiarity concerns regarding the centralized approach. *Id.* at 38.
²⁶⁹ *Id.* at 37. Other Member States are in favor of centralization but are pessimistic about the feasibility of this approach. *Id.* Member States in favor of centralization include Sweden, Finland, Denmark, Austria, France, Italy, and the Netherlands. *Id.* The Netherlands proposed a hybrid outcome in case of a failure to agree on the centralized approach. *Id.* The United Kingdom proposed an opt-out system for the initial stage with eventual convergence to the centralized approach. *Id.*; see also Press Release, European Commission, Common platform for auctioning carbon allowances in the third phase of the EU Emissions Trading System (Feb. 21, 2011), available at <http://perma.cc/Q35A-CHU4>.

²⁷⁰ Commission Regulation 1031/2010, art. 30, 2010 O.J. (L 302) 6.

²⁷¹ *Id.*

²⁷² Council Directive 2003/87, art. 18, 2003 O.J. (L 274) (EC).

²⁷³ See generally Council Directive 2008/101/EC, 2009 O.J. (L 8).

²⁷⁴ Commission Regulation 1031/2010, art. 23, 2010 O.J. (L 302) b, c.

²⁷⁵ Council Directive 2003/87/EC, 2003 O.J. (L 274) (EC). Article 10(3) also states that at least fifty percent of the revenues made by auctioning the allowances stipulated in Article 10(2)(a), including the total revenues from the "solidarity" ten percent stipulated in Article 10(2)(b), should be used for certain specific aims. *Id.* The extent to which this is a binding provision has been disputed. See van Zeben, *supra* note 33, at 353 ("This provision is not legally binding for the Member States; the use of the words 'should be' makes it clear that it is a non-legally binding suggestion, which the Commission will not be able to enforce. That said, Article 10(3) also states that Member States 'shall be deemed to have fulfilled the[se] provisions [. . .] if they have in place and implemented fiscal or financial support policies [. . .]'. Member States shall inform the Commission as to the use of revenues and actions taken pursuant to this paragraph in their reports.' The obligations to report is real and the words 'shall be deemed to have fulfilled' suggests

The extent to which the Commission will be able to influence the earmarking (and spending) of auctioning revenues for certain aims is likely to be limited.²⁷⁶

2. Enforcement

The enforcement provisions of Directive 2003/87/EC were altered only insofar as was needed to facilitate the expansion of the EU ETS into additional sectors, such as aviation.²⁷⁷ In line with the shared private-public responsibility for monitoring and reporting, Member States must continue to ensure that reports submitted by (aircraft) operators are verified in accordance with criteria set out in Annex V to the Revised Directive 2003/87.²⁷⁸ As such, enforcement competences have thus far been consistently decentralized within the EU ETS.²⁷⁹ However, the Commission provides harmonization in certain areas, such as verification. In December 2011, the Commission proposed two new regulations on the monitoring, reporting, and verification of greenhouse gas emissions.²⁸⁰ These regulations aim to harmonize criteria for competent verifi-

that there is a more binding character to Article 10(3) than one would prima facie expect.”) (alterations in original).

²⁷⁶ See also *Enhancing EU Rules for Monitoring Greenhouse Gas Emissions*, EUROPEAN COMMISSION (Nov. 23, 2011), <http://perma.cc/F2DW-XPRM>. This article refers to the “put[ting] in place operational rules for Member States to report on their use of revenues from the auctioning of allowances in the EU emissions trading system (EU ETS). Member States have committed to spend at least half of the revenue from such auctions to fight climate change in the EU and third countries.”

²⁷⁷ See generally Council Directive 2008/101/EC, 2009 O.J. (L 8). In addition, specific guidelines for the inclusion of the aviation sector, and corresponding changes to Member State monitoring, are set out in Decision 2009/339/EC which amends Decision 2007/589/EC, 2009 O.J. (L 103). Also, specific additional penalties are available for the aviation sector, allowing Member States to request an operating ban on an aircraft operator from the Commission. *Id.*, art. 16(5)–(10). Detailed provisions regarding the procedure surrounding this penalty have not yet developed but may be established through comitology. Whether this will in fact happen remains unclear. See *id.*, art. 16(12).

²⁷⁸ Council Directive 2003/87, art. 15, 2003 O.J. (L 275) (EC).

²⁷⁹ Combined with the highly technical and complex nature of the provisions, the decentralization of enforcement competences may explain why most of the literature on the EU ETS has thus far focused on the policy side of the EU ETS. Monitoring, reporting, verification, and penalties are seldom mentioned in academic discussions about the EU ETS and if so, only as complementary to an analysis of lawmaking within the EU ETS. Contributions focusing solely on the enforcement processes are predominantly found as policy documents by institutions such as the OECD. See, e.g., Sonja Peterson, OECD, *Monitoring, Accounting and Enforcement in Emissions Trading Regimes*, in OECD GLOBAL FORUM ON SUSTAINABLE DEVELOPMENT: EMISSIONS TRADING (2003), available at <http://perma.cc/45BP-7NS5>; cf. Marjan Peeters, *Inspection and Market-Based Regulation through Emissions Trading: The Striking Reliance on Self-Monitoring, Self-Reporting and Verification*, 2 UTRECHT L. REV. 177 (2006); John K. Stranlund et al., *Enforcing Emissions Trading Programs: Theory, Practice, and Performance*, 30 POL’Y STUD. J. 343 (2002) (both discussing the challenges of monitoring and enforcement in the EU ETS and cap-and-trade systems more generally). This is in sharp contrast with the increasingly prominent critique of the UNFCCC system as lacking reliable enforcement mechanisms and with the importance of good monitoring and enforcement for the success of environmental regulation, particularly climate change regulation. See, e.g., RICHARD B. STEWART & JONATHAN B. WIENER, *RECONSTRUCTING CLIMATE POLICY: BEYOND KYOTO* 54–65 (2007).

²⁸⁰ *Proposal for a Directive of the European Parliament and of the Council on Market in Financial Instruments Repealing Directive 2004/39/EC of the European Parliament and of the Council*

ers across the Member States.²⁸¹ Significantly, they speak to the coordination and allocation of monitoring and enforcement competences for Member States with more than one competent authority in order to prevent duplication.²⁸²

In the area of market oversight there have been significant reforms, initiated by the Commission Communication, “[t]owards an enhanced market oversight framework for the EU Emissions Trading Scheme.”²⁸³ The Communication covers a broad range of market abuse, including insider dealing and market manipulation,²⁸⁴ as well as money laundering, terrorist financing, and other criminal activities.²⁸⁵ Trading on the EU ETS market was already subject to financial markets regulation under Market Abuse Directive by virtue of emission allowances qualifying as a financial instrument on a regulated market.²⁸⁶ Similarly, emission allowance derivatives are subject to regulation under the Markets in Financial Instruments Directive (“MiFID”), which covers trade in virtually all tradable financial instruments in the European Union, when traded on a regulated market or a “multilateral trading facility.”²⁸⁷ Remaining blind spots include spot trading, which is currently regulated at the Member State level, if at all.²⁸⁸

3. *Allocation of Implementation and Enforcement Competences*

In the third trading phase, the EU ETS has become a more centralized system with a concentration of authority at the European level. This move to centralization is partly explained by exogenous developments, such as the failure to reach international consensus on a post-Kyoto system. The move to norm setting at the European level is second best to global norm setting in light of the externalities caused by climate change. That said, the European Union’s commitment to the international process and its (aspired) leadership position therein means that the European Union will strive to maintain a level of reduction that is at least equal to those under a global regime,²⁸⁹ which further reduces the likelihood of the European Union externalizing emission reduction efforts.

(Recast), COM (2011) 656 final, (Oct. 20, 2011); Commission Regulation 601/2012, 2012 O.J. (L 181).

²⁸¹ *Proposal for a Directive of the European Parliament and of the Council on Markets in Financial Instruments Repealing Directive 2004/39/EC of the European Parliament and of the Council (Recast)*, COM (2011) 656 final (Oct. 20, 2011).

²⁸² Commission Regulation 601/2012 on the Monitoring and Reporting of Greenhouse Gas Emissions Pursuant to Directive 2003/87/EC of the European Parliament and of the Council, preamble 4, art. 10.

²⁸³ Commission Communication, COM (2010) 796 final.

²⁸⁴ Council Directive 2003/6/EC, 2003 O.J. (L 96) 16 (EC).

²⁸⁵ Commission Communication, at 6, COM (2010) 796 final.

²⁸⁶ *Id.* at 7.

²⁸⁷ Council Directive 2004/39, 2004 O.J. (L 145) (EC). This Directive has been under review since 2011. On January 14, 2014, an agreement was reached on the adoption of a new Directive, the MiFID II Directive. See Press Release, European Commission, Markets in Financial Instruments (MiFID): Commissioner Michel Barnier Welcomes Agreement in Trilogue on Revised European Rules (Jan. 14, 2014), available at <http://perma.cc/C7BB-3PFT>.

²⁸⁸ Commission Communication, at 10, COM (2010) 796 final.

²⁸⁹ See Council Conclusions on EU Position for the Copenhagen Climate Conference (7–18 December 2009), 2968th Environmental Council Meeting, Oct. 21, 2009.

Moreover, European norm setting has acted as a catalyst in replacing national with European cap-setting, which is an improvement in terms of externalities at the implementation stage and the problems that resulted in during the first two trading phases. Despite the fact that a majority of the Member States preferred a decentralized system with respect to the cap (i.e., cap division), free allocation of allowances based on historic emissions and full access to external credits in 2005,²⁹⁰ there was relatively little protest against the centralization of the cap and move to auctioning. This change in preferences could be explained by the fact that the Member States faced far more stringent reductions in their non-ETS if the NAP system had been continued.²⁹¹

Moving beyond the externalities paradigm, we see that the EU ETS reforms also explicitly take account of heterogeneity between the Member States through the Effort Sharing Agreement. Aside from being faced with divergent reduction targets, Member States are faced with differently affected economic sectors, which increased the tension between ETS and non-ETS sectors under the NAP system. The Effort Sharing Agreement operationalized these disadvantages by using heterogeneous economic circumstances as a redistribution tool of reduction burdens during the implementation stage. This type of intervention would be impossible at the national level since Member States would not be able to unilaterally intervene. Similarly, harmonization in areas such as market oversight and verifier standards represents important centralization that could be justified under a combination of the allocative criteria developed in Part II, *supra*.

Significantly, the Commission appears to consider subsidiarity considerations irrelevant for the ongoing redesign of the EU ETS. In the words of the Commission:

The EU ETS is an EU policy instrument. Structural measures can only be implemented through proposals by the Commission to amend the Directive. Moreover, the EU ETS is a climate policy instrument. Articles 191 to 193 of the Treaty on the Functioning of the EU (TFEU) confirm and further specify EU competencies in the area of climate change.²⁹²

This quote, from the subsidiary section of a recent Impact Assessment, represents the Commission's entire subsidiarity test for the changing EU ETS.²⁹³ Impact Assessments are meant to provide substantive checks for subsidiarity that

²⁹⁰ Skjærseth & Wettestad, *supra* note 199, at 78–79.

²⁹¹ *Id.* at 79 (“Brussels insiders refer to the cap as the ‘firewall’ in the ETS. It is likely that lack of attention reflects the strong call for more harmonization and the already settled overall 20 percent target. If Member States really had questioned this part of the reform, they would likely have faced demands for further emission reductions from non-ETS sectors instead.”).

²⁹² European Commission, *Impact Assessment Accompanying Proposal for a Decision of the European Parliament and of the Council Concerning the Establishment and Operation of a Market Stability Reserve for the Union Greenhouse Gas Emission Trading Scheme and Amending Directive 2003/87/EC*, at 6, COM (2014) 20 final (Jan. 22, 2014).

²⁹³ *Id.*

form the basis for ex post judicial review.²⁹⁴ One may question if the subsidiarity discussion in the above-mentioned Impact Assessment provides sufficient basis on which to base ex post review by the Court, or ex ante review by national parliaments.

CONCLUSION

This Article offers a possible approach to the further substantiation of the subsidiarity principle as contained in Article 5 of the TEU. By incorporating lessons from economic and legal theories on federalism, the competence allocation approach incorporates a broader set of criteria into the subsidiarity principle and explicitly expands their application to every step of the regulatory process—norm setting, implementation, and enforcement. This Article also considers the effects of instrument choice on power sharing, and highlights the role of information and discretion within competence allocation. The European Union Emissions Trading Scheme provides a particularly rich case study, albeit through a reflective debrief rather than a prescriptive design analysis. Despite striving to present a more holistic view of subsidiarity, important gaps remain. Firstly, the allocative criteria applied in this Article are not necessarily appropriate for each area of shared competence within the European Union. When considering competence allocation with respect to GMO regulation one may choose to prioritize risk minimization, whereas participation may be considered crucial for environmental impact assessment procedures. Even so, the evaluative process for competence allocation remains the same, even as the norms may differ. Second, the exercise of identifying appropriate criteria raises the question as to who is, and should be, empowered to do so. These issues should not deter further development of this approach, as the debate that would accompany it will strengthen any resulting subsidiarity test.

The critical view of subsidiarity within the European Union adopted in this Article should not be mistaken for a more general preference for decentralization within the European Union. There are many policy areas that have benefited from centralization, or that would not have existed without European-level coordination. It is, however, naïve to think that this centralization can continue to take place without a solid legal basis and possibilities for judicial review. Over the last decades, the European Union has been maturing into its own species of a federal system, while weathering economic and political crises. During these periods, it has been tempting to adopt an ad hoc approach to power sharing between the European Union and the Member States, which often seems to favor further centralization, regardless of Member State pro-

²⁹⁴ See ANNE C. M. MEUWESE, *IMPACT ASSESSMENT IN EU LAWMAKING* 257 (2008) (“Regardless of whether subsidiarity is seen as an economic principle (comparative cost-effectiveness), a legal principle, a political principle or a procedural principle, IA reports tend to contain the kind of information that is needed for a more rational consideration of the opportunity of Community action.”); see also Alberto Alemanno, *The Better Regulation Initiative at the Judicial Gate: A Trojan Horse within the Commission’s Walls or the Way Forward?*, 15 *EUR. L. J.* 382 (2009).

test.²⁹⁵ Non-transparent and non-judiciable European decision-making on the allocation of power between the EU institutions and the Member States undermines the legitimacy of both European and Member State regulatory action. By substantiating the principle of subsidiarity in meaningful ways, for instance through a competence allocation approach, we can start to strengthen it.

²⁹⁵ *Europe à l'Hollandaise: François Hollande's Flawed Vision for Europe*, THE ECONOMIST, Feb. 9, 2013, at 56 (stating that British Prime Minister David Cameron calls for “a renationalization of European powers”).