Michigan: An Intrusive Inquiry into EPA's Rulemaking Process

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I. INTRODUCTION

In 2015, the Supreme Court decided *Michigan v. EPA*, finding that the U.S. Environmental Protection Agency ("EPA") interpreted section 112 of the Clean Air Act unreasonably when it decided to regulate toxic mercury emissions from power plants without first considering compliance costs.[1] Justice Scalia, writing for a 5-4 majority, found that the term "appropriate and necessary" in section 112 "naturally and traditionally" includes a consideration of costs.[2] Consequently, the Court found that EPA's decision to regulate mercury emissions did not warrant deference under *Chevron v. Natural Resources Defense Council*[3] because EPA did not predicate its determination on an analysis of compliance costs.[4] Rather, EPA decided to regulate emissions from power plants because such emissions pose a public health hazard, pre-existing regulations did not adequately address this hazard, and control technologies exist to mitigate it.[5] In her dissent, Justice Kagan pointed out that the agency had considered costs at the implementation stage of the rulemaking process and criticized the majority for its "micromanagement" of EPA's rulemaking process.[6]

This Note will argue that *Michigan* reflects, for the first time, a presumption in favor of cost considerations by the Court. *Michigan* also represents the first instance where the Court has not only decided *whether* an agency should consider costs and how formal or informal these considerations may be, but has ruled on *when* in the rulemaking process these considerations must take place. Further, *Michigan* indicates a trend toward a more searching application of *Chevron* deference. Consequently, in order to withstand judicial review post-*Michigan*, cautious agencies—and EPA in particular—should alter their rulemaking practices to include cost considerations when making threshold determinations to regulate. Although cost considerations do not require cost-benefit balancing per se, agencies should consider framing considerations as such

1. Michigan v. EPA, 135 S. Ct. 2699 (2015).
2. *Id.* at 2707.
3. Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984) (holding in relevant part that if a statute is ambiguous, a reviewing court will give deference to an agency's interpretation if it is reasonable).
4. *Michigan*, 135 S. Ct. at 2712.
5. *Id.* at 2722.
6. *Id.* at 2715.

because Justice Scalia's reasoning in *Michigan* implicitly requires such analysis.

Part II of this Note defines the many different types of economic analysis in use by rulemaking agencies, of which cost considerations and cost-benefit analysis ("CBA") are subsets. Part II also explores some of the ideological and methodological debates surrounding CBA. Part III examines legislative, judicial, and executive branch mandates regarding CBA during the rulemaking process. Part IV discusses the *Michigan* opinion in depth, analyzing the reasoning of the court. Part V discusses the implications of *Michigan* for agency rulemaking in general, and EPA in particular. Ultimately, this Note argues that *Michigan* is a statutory analysis case that is limited in scope, but that the decision indicates a sea change toward a presumption in favor of cost consideration as well as a more searching application of *Chevron*. This Note concludes that agencies should alter their rulemaking procedures accordingly.

II. COST-BENEFIT ANALYSIS

A. Defining CBA

Cost-benefit analysis ("CBA") is a technique whereby a decision-maker—an individual or institution—weighs and compares the costs and benefits of a proposed course of action in order to determine whether to proceed or pursue an alternative.[7] Although the executive branch and Congress rarely qualify CBA in their respective orders and mandates, CBA is far from a monolithic concept. Rather, CBA can refer to a "wide and divergent array of procedures and practices."[8]

1. Formal CBA

At one end of the spectrum is formal CBA, or "strong" CBA,[9] a highly technical and theorized tool of welfare economics. Welfare economics is a subfield of microeconomics that derives from

7. Amy Sinden, *Formality and Informality in Cost-Benefit Analysis*, 2015 UTAH L. REV. 93, 98 (2015).

8. *Id.* at 99; *see also* Jonathan Cannon, *The Sounds of Silence: Cost-Benefit Canons in Entergy Corp. v. Riverkeeper, Inc.*, 34 HARV. ENVTL. L. REV. 425, 428–29 (2010).

9. *See* Cannon, *supra* note 8, at 428 (employing the term "strong" CBA). Amy Sinden calls this "economic CBA." Sinden, *supra* note 7, at 109. John Graham calls it "the 'hard' test." John D. Graham, *Saving Lives Through Administrative Law and Economics*, 157 U. PA. L. REV. 395, 432–33 (2008).

utilitarianism and the normative principle of "efficiency."[10] The goal of formal CBA is to maximize the overall welfare of society in the aggregate—that is, to identify a perfectly efficient level of regulation.[11] Welfare economists, however, have long recognized that quantifying and comparing each individual's welfare (happiness, well-being, etc.) presents both philosophical and measurement difficulties.[12]

Economists have devised other methods of measuring welfare that do not require measuring one individual's welfare against another's. Pareto efficiency, for example, describes a state where resources have been allocated such that no alternative allocation scheme could make one person better off without making another worse off.[13] But using Pareto efficiency as a standard to measure government intervention is impractical because almost every regulation will make *someone* worse off and consequently fail the Pareto efficiency test.[14] Thus, policymakers often judge regulations via the Kaldor-Hicks model, which is less stringent than the Pareto model. A regulation is efficient under the Kaldor-Hicks model if the individuals who stand to gain from the regulation can fully compensate the individuals whom the regulation burdened. This transfer of wealth is hypothetical and need not occur for a regulation to pass the Kaldor-Hicks test—in fact, it generally never does.[15] Recently, economists have sought to decouple CBA from its traditional justifications by arguing that CBA does not measure overall welfare, but rather is a useful gauge of efficiency because it measures a *proxy* of overall welfare.[16]

Each of these measurement schemes assumes commensurate values—that is, that social costs and benefits can be compared on a single scale. Therefore, formal CBA necessitates the quantification and monetization of *all* social costs and benefits associated with a course of action. CBA then considers a range of alternative courses

10. *See* Graham, *supra* note 9, at 408; Amartya Sen, *The Possibility of Social Choice*, 89 AM. ECON. REV. 349, 351–52 (1999); Sinden, *supra* note 7, at 100.

11. EDWARD M. GRAMLICH, A GUIDE TO BENEFIT-COST ANALYSIS 30–33 (1990).

12. *See*, Sinden, *supra* note 7, at 101.

13. GRAMLICH, *supra* note 11; *see also* Graham, *supra* note 9, at 408–10.

14. *See* Sinden, *supra* note 7, at 101.

15. *See* Graham, *supra* note 9, at 410.

16. Amy Sinden et al., *Cost-Benefit Analysis: New Foundations on Shifting Sand*, 3 REG. & GOVERNANCE 48, 49 (2006); *see also* MATTHEW D. ADLER & ERIC A. POSNER, NEW FOUNDATIONS OF COST-BENEFIT ANALYSIS (2006).

of action and "attempts to pinpoint the course of action for which marginal benefits are just equal to marginal costs."[17]

Most environmentalist critiques of CBA focus on the moral and methodological issues inherent in the process of making intangible costs and benefits commensurable.[18] Some commentators balk at the moral implications of monetizing intangibles such as environmental integrity and human health. For example, EPA estimates the statistical value of a human life at $7.4 million in 2006 dollars for the purposes of CBA;[19] a common response is that life is sacred and priceless.[20] Another common CBA practice with moral implications is discounting future costs and benefits to present-day values. Discounting accounts for the fact that money accrues value over time and that an individual is generally willing to pay more to reduce an immediate risk (such as the risk of an industrial accident) than to reduce a future risk (such as cancer in twenty years due to asbestos exposure). Critics argue that when employed by regulators, discounting has wrongly conflated individual and generational discounting, applying precepts of private market conduct to public policy decisions.[21] Consequently, discounting encourages punting hard decisions with intergenerational implications—such as how best to mitigate climate change—further and further down the line.[22]

Others critique what they describe as methodological fallacies that preclude unbiased quantification of intangible variables. These practices include regulators' habit of examining the countervailing risks of a proposed regulation but ignoring its ancillary benefits[23] and assuming that increases in an individual's wealth cause a corresponding increase in her health.[24] CBA also

17. Sinden, *supra* note 7, at 99.

18. Cass R. Sunstein, *Incommensurability and Valuation in Law*, 92 MICH. L. REV. 779, 841–42 (1994); *see also* Cannon, *supra* note 8, at 425.

19. *Mortality Risk Valuation*, U.S. ENVTL. PROTECTION AGENCY, https://www.epa.gov/environmental-economics/mortality-risk-valuation [https://perma.cc/4UWE-M242] (last updated May 27, 2016).

20. *See* FRANK ACKERMAN & LISA HEINZERLING, PRICELESS: ON KNOWING THE PRICE OF EVERYTHING AND THE VALUE OF NOTHING 67–69 (2004).

21. *See* RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH 95–117 (2008); *see also* ACKERMAN & HEINZERLING, *supra* note 20, at 180–92.

22. *See* REVESZ & LIVERMORE, *supra* note 21, at 95–117.

23. *Id.* at 55–65.

24. *Id.* at 71–73.

frequently overestimates the cost of compliance because it assumes that industry will not adapt cheaper mechanisms after a regulation takes effect.[25] Further, some common regulatory practices rely on faulty assumptions regarding the ways in which people evaluate risk. For instance, some regulators substitute the value of "life-years" for the value of a statistical life. This practice assigns value to people's lives in proportion with their life expectancies, so that a forty-year-old's life may be considered several times more valuable than that of a seventy-year-old, even though there is no empirical data to show that younger people assign a higher value to their lives—i.e., that they are less likely to take risks or more inclined to pay for risk reduction than are older people.[26] Together, these moral and methodological issues tend to skew CBA toward costs and away from benefits.

Conversely, CBA proponents argue that formal CBA ensures reasoned decision-making that makes the most out of society's scarce resources. They argue that the process does not harbor any pro- or anti-regulatory biases.[27] CBA proponents further contend that CBA, by requiring regulators to identify and define all relevant factors and alternatives, contributes to transparency and informed political debate.[28] However, while the executive branch requires formal CBA of all significant rules prior to their enactment, Congress and the Supreme Court have historically balked at imposing formal CBA on administrative agencies.[29] For example, in *Michigan*, Justice Scalia refused to require EPA to conduct "a formal cost-benefit analysis in which each advantage and disadvantage is assigned a monetary value."[30]

2. Informal CBA

By contrast, informal CBA, or "weak" CBA,[31] involves identifying and roughly balancing costs and benefits without any attempt at quantifying them. The resulting comparison is rough: a course of

25. *Id.* at 131–43.

26. *Id.* at 77–84.

27. Cannon, *supra* note 8, at 425 (citing CASS R. SUNSTEIN, RISK AND REASON 35 (2002) [hereinafter SUNSTEIN, RISK AND REASON]; ADLER & POSNER, *supra* note 16, at 101–23).

28. *Id.*

29. *See infra* Part III.

30. Michigan v. EPA, 135 S. Ct. 2699, 2711 (2015).

31. *See* Cannon, *supra* note 8, at 428–29 (employing the term "weak" CBA). Informal CBA is called "Ben Franklin CBA" by Amy Sinden and "the 'soft' test" by John Graham.

action is desirable if its benefits outweigh its costs.[32] This exercise weeds out regulatory alternatives that appear "absurd, irrational, or otherwise not in accord with common sense,"[33] but does not attempt to optimize social welfare. Benjamin Franklin referred to this exercise as "prudential algebra." In a letter to Joseph Priestley, he described his practice of dividing a sheet of paper in half, labeling the resulting columns "pro" and "con", populating each with relevant concerns, and estimating their respective weights. He wrote that although "the weight of reasons cannot be taken with the precision of algebraic quantities, [when] each is thus considered, separately and comparatively, and the whole lies before me, I think I can judge better, and am less liable to take a rash step."[34] That informal CBA uses qualitative measures does not render the process subjective—rather, the process is as objective as formal CBA, just of a different stripe.

Few criticize informal CBA, as it seems inherently useful and logical. Indeed, most of us undertake this kind of analysis quite frequently in our everyday lives. The *Michigan* Court's references to the necessary balancing of regulatory advantages and disadvantages, albeit oblique, seem to agree with this sentiment.[35]

B. Other Mechanisms to Incorporate Concerns About Costs

Although CBA ranges along a spectrum from informal to formal depending on the number of variables quantified and monetized, the number of alternatives evaluated, and the precision of the balancing test used to weigh costs against benefits, the concept does not encompass all forms of decision-making that take costs into account. Oftentimes, Congress directs an agency to contemplate the economic implications of its decision-making through "feasibility" and "cost consideration" requirements, both of which preclude CBA.

32. *See* Sinden, *supra* note 7, at 107–27.

33. Cannon, *supra* note 8, at 429.

34. MEMOIRS OF THE LIFE AND WRITINGS OF BENJAMIN FRANKLIN 12 (William Temple Franklin ed., 1818) (September 19, 1772 letter from Benjamin Franklin to Joseph Priestly).

35. *See infra* Section IV.B.

1. Feasibility Analysis

Some statutes require that agencies regulate against certain harms but only "to the extent feasible."[36] For example, a provision of the Clean Water Act that regulates how the electric power industry extracts water for cooling purposes requires that "cooling water intake structures reflect the best technology available for minimizing adverse environmental impact."[37] Courts have generally determined that such a feasibility-based directive mandates a two-pronged analysis: an agency must consider the technological and economic feasibility of compliance with a proposed rule.[38] A regulation passes the feasibility test if an agency demonstrates that compliance can be achieved with existing technology and will not be prohibitively expensive. Such an analysis is distinct from CBA because costs and benefits are not weighed against one another.[39]

2. Cost Considerations

Other statutes direct agencies to "consider costs" or consider certain factors that include cost when promulgating rules.[40] For example, the D.C. Circuit held that a statute directing the Securities and Exchange Commission ("SEC") to "consider, in addition to the protection of investors, whether the [proposed] action will promote efficiency, competition, and capital formation"[41] required the agency to consider the costs of imposing the condition.[42] The mandate to consider costs is analytically

36. Occupational Safety and Health Administration standards regarding toxic materials or harmful physical agents must be standards that most adequately assure, "to the extent feasible, . . . that no employee will suffer material impairment of health or functional capacity." 29 U.S.C. § 655(b)(5) (2012).

37. 33 U.S.C. § 1326(b) (2012).

38. *See, e.g.*, Ala. Power Co. v. OSHA, 89 F.3d 740, 746 (11th Cir 1996); AFL-CIO v. OSHA, 965 F.2d 962, 982 (11th Cir. 1992).

39. *See generally* David M. Driesen, *Distributing the Costs of Environmental, Health, and Safety Protection: The Feasibility Principle, Cost-Benefit Analysis, and Regulatory Reform*, 32 B.C. ENVTL. AFF. L. REV. 1, 94 (2005).

40. For example, the Safe Water Drinking Act directs EPA to set a standard for each drinking water contaminant "which is as close to the maximum contaminant level goal as is feasible" where feasible "means feasible with use of the best technology . . . taking cost into consideration." 42 U.S.C. § 300g-1(b)(4)(B), (D) (2012).

41. 15 U.S.C. § 80a-2(c) (2012).

42. Bus. Roundtable v. SEC, 647 F.3d 1144, 1148–49 (D.C. Cir. 2011); Chamber of Commerce v. SEC, 412 F.3d 133, 141 (D.C. Cir. 2005).

distinct from CBA. Oftentimes, this consideration takes the form of a cost-effectiveness analysis, which assumes the legitimacy of a regulatory goal and then selects the least expensive means of accomplishing it.[43] Cost-effectiveness analysis does not seek to optimize social welfare nor is its goal to produce efficient regulations.

Informal CBA and cost considerations are distinct concepts, yet the *Michigan* opinion conflates them. The Court's holding is simply that it was unreasonable for EPA not to consider costs when deciding to regulate emissions from power plants.[44] But Justice Scalia complicated matters by imbuing a mandate to consider costs with a requirement to balance costs against benefits. He specifically admonished EPA for "refus[ing] to consider whether the costs of its decision outweighed the benefits."[45] Thus, a cautious agency should read not only the text of the holding, but its subtext, which indicates a mandate to perform informal CBA.

III. COMPETING DIRECTIVES

Agencies must navigate a minefield of conflicting directives regarding CBA of their rules. Congress has frequently rejected the necessity of CBA in the context of statutes governing ecological and public health, citing, among other concerns, the methodology's failure to adequately consider intangible values and its potential for internalizing biases. Consequently, the statutes that serve as enabling authority for the majority of our environmental regulations today expressly preclude cost-benefit analysis or do not provide for it. But beginning with Ronald Reagan, every president has required that federal agencies conduct formal CBA before issuing significant regulations, even when the enabling statutory authority does not provide for such considerations. As such, CBA has evolved from a tool of anti-regulatory ideologues to a firmly entrenched bipartisan practice.

Relevant pre-*Michigan* Supreme Court decisions indicate that, where a statute is silent or ambiguous regarding cost, an agency may decide whether to consider costs.[46] The concurring and

43. Raymond Kopp et al., *Cost-Benefit Analysis and Regulatory Reform: An Assessment of the Science and the Art*, at i, 1, 51 (Res. for the Future, Discussion Paper 97-19, 1997).

44. Michigan v. EPA, 135 S. Ct. 2699, 2712 (2015).

45. *Id.* at 2706.

46. *See* Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 862 (1984).

dissenting opinions in these cases characterize CBA as a tool to limit irrationality and support CBA use, although each of these opinions was careful to encourage only informal analyses. Indeed, the Court has often specifically derided formal CBA. Notably, none of these decisions give any indication regarding the appropriate timing of cost considerations during the rulemaking process.

A. Congress

In the 1970s, Congress passed eighteen environmental statutes that form the foundation of the U.S. environmental canon today.[47] Most of these acts forced substantive change by requiring the establishment of "national regulations, often by specified deadlines, with both regulations and deadlines enforceable by citizen suits."[48] Congressional support for these new laws was bipartisan and "overwhelmingly favorable."[49] Indeed, "[t]he average vote in favor of major federal environmental legislation during the 1970s was seventy-six to five in the Senate and 331 to thirty in the House."[50]

These statutes "were dramatic, sweeping, and uncompromising, consistent with the nation's spiritual and moral resolution" at the time.[51] As such, members of Congress were concerned that cost-benefit analysis would obstruct the meaningful environmental and public health protections promised therein. They cited the difficulties inherent in attempting to monetize intangible values, pervasive scientific uncertainties, and CBA's potential for harboring anti-public interest biases.[52] "They worried that agencies would spin their wheels and spend vast resources chasing the holy

47. These statutes include the "National Environmental Policy Act (NEPA), Clean Air Act (CAA), Clean Water Act (CWA), Endangered Species Act (ESA), Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), Safe Drinking Water Act (SDWA), Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act (TSCA), National Forest Management Act ('NFMA'), and Federal Land Policy and Management Act (FLPMA)." JONATHAN Z. CANNON, ENVIRONMENT IN THE BALANCE: THE GREEN MOVEMENT AND THE SUPREME COURT 31 (2015).

48. Robert V. Percival, *Checks Without Balance: Executive Office Oversight of the Environmental Protection Agency*, 54 L. & CONTEMP. PROBS. 127, 129 (1991).

49. Richard J. Lazarus, *The Tragedy of Distrust in the Implementation of Federal Environmental Law*, 54 L. & CONTEMP. PROBS. 311, 323 (1991).

50. *Id.*

51. *Id.*

52. *See* STAFF OF H. SUBCOMM. ON OVERSIGHT & INVESTIGATIONS OF THE H. COMM. ON INTERSTATE & FOREIGN COMMERCE, 94TH CONG., FEDERAL REGULATION AND REGULATORY REFORM 503–15 (Comm. Print 1976).

grail of the accurate, uncontestable, and determinate CBA, and produce instead only regulatory paralysis."[53] In 1976, Congress found that "[t]he limitations on the usefulness of cost/benefit analysis in the context of health, safety, and environmental regulatory decision-making are so severe that they militate against its use altogether."[54]

Consequently, most of these environmental statutes mandated command-and-control approaches that either expressly precluded CBA, or at least did not provide for it.[55] Some of these statutes were explicitly "technology-forcing"; they directed agencies to set standards based only on concerns for human and ecological health, assuming that affected industries would eventually catch up. For example, the national ambient air quality provisions of the Clean Air Act are cost-blind: EPA cannot consider the costs of implementation when it sets national ambient air quality standards ("NAAQS") for air pollutants such as particulate matter, ozone, sulfur dioxide, NO_x, and lead.[56] Rather, Congress directed EPA to set standards "the attainment and maintenance of which . . . are requisite to protect the public health" with "an adequate margin of safety."[57]

Other provisions of these environmental statutes, including the Clean Air Act, direct agencies to set "feasibility" standards or to "consider costs." Each of these principles allows for cost consideration to preclude unreasonably burdensome regulation, but does not provide for any sort of cost-benefit balancing.[58] Only two of the eighteen foundational environmental statutes authorize any type of cost-benefit balancing.[59]

53. Amy Sinden, *Cass Sunstein's Cost-Benefit Lite: Economics for Liberals*, 29 COLUM. J. ENVTL. L. 191 (2004); *see also* Howard Latin, *Ideal Versus Real Regulatory Efficiency: Implementation of Uniform Standards and 'Fine-Tuning' Regulatory Reforms*, 37 STAN. L. REV. 1267, 1283–84 (1985).

54. FEDERAL REGULATION AND REGULATORY REFORM, *supra* note 52, at 515.

55. CANNON, *supra* note 47, at 32.

56. *See* Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 471 (2001) (holding that the text of section 109(b) of the Clean Air Act "unambiguously bars cost considerations from the NAAQS-setting process").

57. 42 U.S.C. § 7409(b) (2012).

58. *See supra* Section II.B.

59. *See* Federal Insecticide, Fungicide and Rodenticide Act of 1972, Pub. L. No. 92-516, 86 Stat. 973 (1972) (codified as amended at 7 U.S.C. §§ 136–136y (2012)); Toxic Substances Control Act of 1976, Pub. L. No. 94-469, 90 Stat. 2003 (1976) (codified as amended at 15 U.S.C. §§ 2601–97 (2012)). Notably, neither statute includes the term "cost-benefit analysis," or even "cost-benefit balancing"; they direct an agency to apply a "reasonableness" standard when setting regulations that considers many factors, including costs and benefits. *See*

Some of Congress's more recent statutes have authorized CBA, indicating growing Congressional approval of the methodology.[60] Further, Congress has enacted some provisions that entrench centralized regulatory review, such as the Unfunded Mandates Reform Act of 1995,[61] which requires agencies promulgating rules that may result in expenditure of $100 million or more to conduct CBA alongside the proposed rule (the Office of Information and Regulatory Affairs monitors compliance). Further, the Regulatory Flexibility Act of 1980[62] requires agencies to assess the impact of their rules on small entities, including small businesses and non-governmental organizations.

B. The Courts

Until 2001, the Supreme Court's decisions regarding agency decision-making vis-à-vis environmental statutes indicated a presumption against CBA. On two occasions in the past decade, however, the Court has upheld EPA's decision to consider costs when promulgating regulations. Notably, these pre-*Michigan* cases never *required* cost considerations and never commented on when cost considerations should take place during the rulemaking process.

1. A Historical Presumption Against CBA

Throughout the 1970s, the Court consistently found that various provisions of Congress's newly enacted environmental statutes precluded *any* consideration of costs at *any* stage in the agency-decision-making process because Congress had already expressly given precedence to environmentalist ends. In many ways, the Court's opinions during this time reflected the tenets of the era's

Sinden, *supra* note 7, at 131–32 (explaining that FIFRA directs EPA to register and approve a pesticide for sale based in part on whether it will perform its intended function without imposing "any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide"); *see also* 7 U.S.C. §§ 136a(c)(5), 136(bb). TSCA directs EPA to consider "the reasonably ascertainable economic consequences of the rule, including consideration of . . . the likely effect of the rule on the national economy, small business, technological innovation, the environment, and public health." 15 U.S.C. § 2605(c)(2)(A)(iv).

60. *See, e.g.*, Safe Drinking Water Act Amendments of 1996, Pub. L. No. 104-182, 110 Stat. 1613 (1996) (codified as amended at 42 U.S.C. § 300g-1(b)(3) (2012)) (authorizing CBA).

61. 2 U.S.C. §§ 1532–38 (2012).

62. 5 U.S.C. §§ 601–12 (2012).

environmentalist movement, particularly its embrace of the precautionary principle and its pervading sense of urgency.[63] In 1971, for example, Justice Marshall found that a provision prohibiting the Secretary of Transportation from authorizing the use of federal funds to finance the construction of highways through public parks precluded cost considerations if a *"feasible and prudent"* alternative route existed.[64] He determined that the statute—by virtue of its "very existence"—indicated "that protection of parkland was to be given paramount importance."[65] Congress had already weighed the costs and benefits and determined that parkland was more valuable than highways in all but the most extraordinary of circumstances.

Similarly, in 1978 the famous *Tennessee Valley Authority v. Hill* decision found that section 7 of the Endangered Species Act ("ESA") precluded any consideration of costs.[66] The statute mandated, in relevant part, that all federal departments and agencies take "*such action necessary* to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of . . . endangered species."[67] In 1960, the Tennessee Valley Authority—a government-owned public corporation—approved the Tellico hydroelectric dam, and in 1967 started construction using funds appropriated by Congress.[68] Chief Justice Burger found that, because the dam threatened the endangered snail darter (a small fish), its completion violated section 7, even though the dam was virtually finished ($110 million of taxpayer money had already been spent) by the time the case reached the Court. The Court reasoned that Congress had prioritized the

63. *See* CANNON, *supra* note 47, at 40. While some scholars advocate for an "embeddedness model" in which the Court passively absorbs mainstream culture and reflects the majority view in its opinions, and others advocate for an "agency model" in which the Court might rule contrary to the prevailing popular opinion on important cultural issues in order to influence social change, few would disagree that the Court and American culture exist within a dialectic. *Id.*

64. Citizens to Pres. Overton Park, Inc. v. Volpe, 401 U.S. 402, 405 (1971) (emphasis added).

65. *Id.* at 411–13 (noting that the Secretary could not balance competing interests when determining that no other "prudent" route existed, because "in most cases considerations of cost" will "indicate that parkland should be used for highway construction whenever possible").

66. Tenn. Valley Auth. v. Hill, 437 U.S. 153 (1978).

67. 16 U.S.C. § 1536 (1976) (emphasis added).

68. CANNON, *supra* note 47, at 92.

protection of endangered species above all else,[69] and that the absence of qualifying or balancing language in section 7 thus directed agencies to save endangered species "whatever the cost."[70] Although the Court acknowledged that the loss of millions of tax dollars might arguably weigh more heavily than the continued existence of the snail darter, it insisted that Congress had precluded "such fine utilitarian calculations."[71] In other words, the Court found that even if Congress had authorized the balance of costs and benefits, the incommensurability of the values at issue—endangered species versus tax dollars—rendered such an exercise impossible. Indeed, Congress had declared "the value of endangered species as 'incalculable.'"[72]

The Court also refused to require agencies to conduct CBA where statutes mandated feasibility standards, distinguishing feasibility and CBA as separate concepts. In *American Textile Manufacturers v. Donovan*, decided in 1981, the Court upheld the Occupational Safety and Health Administration's ("OSHA") decision not to conduct quantitative CBA while setting workplace standards for cotton dust because a feasibility analysis sufficed.[73] Section 6(b)(5) of the Occupational Safety and Health Act directs the agency to set "the standard which most adequately assures, *to the extent feasible*, on the basis of the best available evidence, that no employee will suffer material impairment of health or functional capacity."[74] Justice Brennan, writing for the majority, found that OSHA's abstention from quantitative CBA was justified first because Congress had prioritized worker health, and second because "when Congress has intended that an agency engage in cost-benefit analysis, it has clearly indicated such intent on the face of the statute."[75] The Court rejected industry interests' argument that the phrase "to the extent feasible" mandated CBA. On the contrary, the Court distinguished feasibility from cost considerations, finding that "cost-benefit analysis by OSHA is not

69. *Tenn. Valley*, 437 U.S. at 185 (noting that federal agencies were "to afford first priority to the declared national policy of saving endangered species").

70. *Id.* at 184.

71. *Id.* at 187.

72. *Id.*

73. Am. Textile Mfrs. Inst., Inc. v. Donovan, 452 U.S. 490 (1981).

74. 29 U.S.C. § 655(b)(5) (2012) (emphasis added).

75. *Am. Textile Mfrs.*, 452 U.S. at 510.

required by the statute because feasibility analysis is."[76] In his dissent, Justice Rehnquist objected to the Court's conclusion and found that the statute was not clear as to whether it "mandated, permitted, or prohibited [OSHA] from undertaking a cost-benefit analysis."[77] However, CBA scholars at that time thought the decision precluded cost-benefit balancing and maligned it for that reason.[78]

The Court also aggressively upheld "technology-forcing" statutes: ambitious public health and environmental statutes that on their face seem infeasible but are designed to force industry innovation. In *Union Electric Co v. EPA*, the Court found that section 10 of the Clean Air Act did not allow EPA to consider claims of technological or economic infeasibility—that is, the costs of compliance—in assessing claims against a state plan designed to achieve air quality standards.[79] The statute in question directed EPA to promulgate two sets of national ambient air quality standards: primary standards necessary to protect public health, and secondary standards necessary to protect the public welfare. It also required each state to formulate EPA-approved plans to meet those standards "*as expeditiously as practicable*" but "in no case later than three years from the date of approval of such plan."[80] The Court squarely rejected the petitioner utility's argument that "practicable" encompassed any kind of cost consideration.[81]

Where these cost-blind interpretations of environmental and public health statutes encountered resistance within the Court, the dissenters did not contend that Congress had intended that agencies conduct CBA, but rather that those decisions abrogated common law principles. Justice Powell's dissent in *Tennessee Valley*, for instance, claimed that the majority, by enjoining development of a dam so near completion, had reached an "absurd result." He found section 7 of the ESA ambiguous, and consequently urged the

76. *Id.* at 509.

77. *Id.* at 548. For this reason, Justice Rehnquist believed that "Congress unconstitutionally delegated its legislative responsibility to the Executive Branch."

78. *See id.*

79. Union Elec. Co. v. EPA, 427 U.S. 246 (1976).

80. 42 U.S.C. § 1857c-5(a)(2)(A) (2012) (emphasis added); *see also* S. REP. NO. 101-228 (1989), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3391.

81. To the contrary, the Court upheld the technology-forcing nature of section 10, noting that, "in a literal sense, of course, no plan is infeasible since offending sources always have the option of shutting down if they cannot otherwise comply with the standard of the law." *Union Elec. Co.*, 427 U.S. at 265 n.14.

Court "to adopt a permissible construction that accords with some modicum of common sense."[82] Justice Rehnquist dissented as well. However, he did not parse the language of section 7, but instead determined that the ESA's enforcement provision did not support an automatic issuance of an injunction. Rather, he thought that since the relief sought was equitable in nature and thus within the Court's discretion, the Court's role was to balance the equities, which weighed in favor of completing the dam.[83]

By the 1990s, both Republican and Democratic iterations of the executive branch had fully endorsed cost-benefit analysis, and Congress had mandated an informal cost-benefit analysis in at least one environmental statute.[84] Throughout this period, however, the Court continued to find that certain parts of key environmental statutes precluded a consideration of costs. For example, in *City of Chicago v. Environmental Defense Fund*, a unanimous court upheld EPA's decision to apply strict regulatory requirements (not taking account of cost) to ash generated by municipal waste combustors where the relevant statute was ambiguous.[85]

In 2001, the Court famously disallowed CBA where the statutory provision at issue was ambiguous on that point. In *Whitman v. American Trucking Ass'ns*, Justice Scalia, writing for a unanimous Court, refused to find implicit in the 1990 Clean Air Amendments an authorization to consider costs that had "elsewhere, and so often, been expressly granted."[86] Section 109(b)(1) requires EPA to set NAAQS at a level "*requisite to protect the public health*" with "*an adequate margin of safety*."[87] Industry interests argued that those terms were sufficiently flexible to permit EPA to consider costs and benefits before promulgating air quality standards, and that common law tenets such as balancing equities required such considerations. Justice Scalia disagreed, finding it "implausible that Congress would give to the EPA through these modest words the

82. Tenn. Valley Auth. v. Hill, 437 U.S. 153, 196 (1978).

83. *Id.* at 213.

84. *See supra* note 40.

85. City of Chicago v. Envtl. Def. Fund, 511 U.S. 328, 348 (1994) ("Whether those purposes will be disserved by regulating municipal incinerators under Subtitle C and, if so, whether environmental benefits may nevertheless justify the costs of such additional regulation are questions of policy that we are not competent to resolve. Those questions are precisely the kind that Congress has directed the EPA to answer."); *see also* Jonathan Cannon, *Environmentalism and the Supreme Court: A Cultural Analysis*, 33 ECOLOGY L. Q. 363, 422 (2006).

86. Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 467 (2001).

87. 42 U.S.C. § 7409(b)(1) (2012) (emphasis added).

power to determine whether implementation costs should moderate national air quality standards." His analysis found the statute unambiguous, because any authority the statute grants EPA to consider costs must stem from a "clear textual commitment," which section 109(b)(1) lacks.[88] It was unclear, however, whether *American Trucking* was limited only to the NAAQS provisions of the Clean Air Act or implicated a broader presumption against cost-benefit analysis. To that end, Justice Breyer's concurrence disagreed with the Court's seemingly hardline stance against cost-benefit balancing and advocated that, where ambiguous, statutes should be read to permit agency consideration of the adverse effects of proposed regulations.[89]

2. The Recent Permissibility of Cost Consideration

In applying *Chevron* to an agency interpretation of a statute, a court first asks at "step one" whether "Congress has directly spoken to the precise question at issue." If Congress has spoken, "that is the end of the matter"; the agency has no flexibility. But if the statute is silent or ambiguous on the question at issue, a reviewing court proceeds to ask at "step two" whether the agency's interpretation is "based on a permissible construction of the statute."[90] In two subsequent cases to *American Trucking*, the Court applied the *Chevron* test and upheld EPA's decision to consider costs as a reasonable exercise in agency discretion.

In *Entergy Corp. v. Riverkeeper, Inc.*, the Court upheld EPA's use of a cost-variance procedure (a type of "weak" CBA) when regulating cooling intake structures for existing electric power plants under a relatively obscure provision of the Clean Water Act.[91] Section 316(b) directs EPA to set standards that reflect "the *best technology available* for minimizing adverse environmental impact."[92] For new power plants, EPA mandated closed-cycle systems that sharply limited the amount of water used in cooling, consequently decreasing the number of fish, shellfish, and other marine life killed during the cooling process by up to 98%. EPA had

88. *Am. Trucking*, 531 U.S. at 468.

89. *Id.* at 490. Justice Breyer nonetheless concurred in the outcome, concluding that "[s]ection 109 does not delegate to the EPA authority to base the national ambient air quality standards, in whole or in part, upon the economic costs of compliance." *Id.* at 496.

90. Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 842–43 (1984).

91. Entergy Corp. v. Riverkeeper, Inc., 556 U.S. 208 (2009).

92. 33 U.S.C. § 1326(b) (2012) (emphasis added).

determined that existing plants could use a combination of less-expensive technologies that only reduced aquatic organism mortality by 40%, while those existing facilities that demonstrated that the cost of compliance was "significantly greater" than the desired benefits could request a facility-specific variance.

In *Entergy,* the Second Circuit had read *American Textile* as imparting an anti-CBA presumption and thus concluded that section 316(b) precluded cost-benefit balancing. The Supreme Court reversed.[93] Justice Scalia, writing for a plurality, held that EPA's interpretation that section 316(b) allows for cost considerations was reasonable.[94] Justice Scalia distinguished this holding from *American Trucking*. He stated that in *American Trucking*, silence regarding cost considerations did not preclude such analysis because "best technology available" evinced more modest environmental objectives than those found in the Clean Air Act's air quality standards.[95] Further, he thought that since section 316(b) did not list *any* factors for consideration, interpreting silence as implying prohibition would be illogical.[96] But the opinion sanctioned only an informal CBA, akin to a "test of reasonableness" and not the more rigorous, formal CBA.[97] Justice Breyer's partial concurrence conceded the variety of reasons Congress may have wanted to limit "formal cost-benefit analyses," which can "take too much time," underemphasize qualitative factors not easily susceptible to quantification, and reduce incentives for industry to develop cheaper control technologies.[98]

93. *Entergy Corp.*, 556 U.S. at 226–27.

94. *Id.* at 226.

95. *Id.* at 222 ("If silence here implies prohibition, then the EPA could not consider *any* factors in implementing § 1326(b)—an obvious logical impossibility.").

96. *Id.*

97. CANNON, *supra* note 47, at 136; *see also Entergy Corp.*, 556 U.S. at 223 ("Other arguments may be available to preclude such a rigorous form of cost-benefit analysis as that which was prescribed under the statute's former BPT standard, which required weighing the total cost of application of technology against the benefits to be achieved. But that question is not before us." (internal quotation marks, citations, and alterations omitted)).

98. *Entergy Corp.*, 556 U.S. at 232 ("The preparation of formal cost-benefit analyses can take too much time, thereby delaying regulation. And the sponsors feared that such analyses would emphasize easily quantifiable factors over more qualitative factors (particularly environmental factors, for example, the value of preserving nonmarketable species of fish). Above all, they hoped that minimizing the use of cost-benefit comparisons would force the development of cheaper control technologies; and doing so, whatever the initial inefficiencies, would eventually mean cheaper, more effective cleanup." (internal citations omitted)).

However, Breyer also reiterated his point in *American Trucking*, stating that a weak form of cost-benefit analysis can guard against irrationality.[99] Justice Stevens's dissent, joined by Justices Souter and Ginsburg, agreed with the Second Circuit that *American Trucking* required the Court to read section 316(b)'s silence on cost considerations as an implicit prohibition against cost-benefit analysis. But because *Entergy* concerned an obscure provision of the Clean Water Act, the decision "left open the possibility of applying *American Trucking* broadly to the entire Clean Air Act, even if it foreclosed *American Trucking*'s applicability to the Clean Water Act."[100]

In 2014, *EPA v. EME Homer City Generation, L.P.* closed the door on the possibility that *American Trucking* precluded cost considerations vis-à-vis the Clean Air Act.[101] There, Justice Ginsburg, writing for the majority, upheld the EPA Transport Rule's use of cost considerations in allocating responsibility for emission reductions between states under the Clean Air Act's Good Neighbor Provision.[102] Section 110 directs states to prohibit in-state sources "from emitting any air pollutant in *amounts* which will . . . contribute significantly" to downwind States' "nonattainment . . . or interfere with maintenance"[103] of EPA's air quality standards. The Transport Rule employed a two-step approach: in a "screening" analysis, states that contributed to less than 1% of the emissions in a downwind state were screened out and exempted from regulation. Next, in the "control" analysis, EPA chose state-specific limits "based on what it determined were 'significant cost thresholds' for achieving noticeable downwind air quality."[104] Justice Ginsburg's *Chevron* analysis determined that "amounts"

99. *Id.* at 235 ("The EPA's reading of the statute would seem to permit it to describe environmental benefits in non-monetized terms and to evaluate both costs and benefits in accordance with its expert judgment and scientific knowledge. The Agency can thereby avoid lengthy formal cost-benefit proceedings and futile attempts at comprehensive monetization; take account of Congress' technology-forcing objectives; and still prevent results that are absurd or unreasonable in light of extreme disparities between costs and benefits. This approach, in my view, rests upon a reasonable interpretation of the statute—legislative history included. Hence it is lawful." (internal quotation marks and citations omitted)).

100. *Clean Air Act—Cost Considerations—EPA v. EME Homer City Generation, L.P.*, 128 HARV. L. REV. 351, 359 (2014).

101. EPA v. EME Homer City Generation, L.P., 134 S. Ct. 1584, 1589 (2014).

102. *Id.*

103. 42 U.S.C. § 7410(a)(2)(D)(i) (2012) (emphasis added).

104. *Clean Air Act—Cost Considerations*, *supra* note 100, at 352.

within the meaning of section 110 was ambiguous because the term failed to indicate *what* amounts by *which* states, and consequently EPA's calculus was "a 'reasonable' way of filling the 'gap left open by Congress.'"[105] Justice Scalia's dissent relied heavily on *American Trucking* and argued that the Transport Rule was "contrary to the plain logic of the statute," which precluded cost considerations.[106] Justice Ginsburg countered, stating that the NAAQS mandate was "absolute," while the Good Neighbor Provision encompassed more discretion.[107]

Prior to *Michigan*,[108] these cases indicated that when a statute was silent or ambiguous on cost, an agency could consider costs but was not required to do so. In recent years, the Court has erred on the side of permissibility, in keeping with the deference accorded to agency decision-makers under *Chevron*.[109] The cost consideration methodology sanctioned by the Court is informal, and does not presuppose the monetization of all values nor undercut the clout of technology-forcing statutes. But where a statute prioritizes public health protection above all else, cost considerations are precluded.[110]

C. The Executive Branch

1. The Reagan Era: Deregulatory Forces Capture CBA

Deregulation was a linchpin of Ronald Reagan's first presidential campaign. In a 1980 debate with incumbent President Jimmy Carter he famously said:

> I am suggesting that there are literally thousands of unnecessary regulations that invade every facet of business, and indeed, very much of our personal lives, that are unnecessary; that Government can do without; that have added $130 billion to the cost of production in this

105. *EME Homer*, 134 S. Ct. at 1607 (quoting Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 866 (1984)).

106. *Id.* at 1610.

107. *Id.* at 1607 n.21.

108. Michigan v. EPA, 135 S. Ct. 2699 (2015).

109. *See generally Chevron*, 467 U.S. 837.

110. *Clean Air Act—Cost-Benefit Analysis—Michigan v. EPA*, 129 HARV. L. REV. 311, 316–17 (2015).

> country; and that are contributing their part to inflation. And I would like to see us a little more free, as we once were.[111]

Reagan's campaign successfully framed regulation and federal bureaucracy not only as needlessly intrusive but also as anathema to economic growth; he promised to create jobs and promote individual freedoms by aggressively eliminating both.[112]

Within a month of taking office, President Reagan issued Executive Order 12,291, which enabled an unprecedented level of executive control over agency decision-making as a tactic to forestall seemingly oppressive regulation, in part through its imposition of CBA.[113] The order first required every agency to adhere to social welfare-maximizing precepts when setting regulations.[114] Agencies were to prioritize "maximizing the aggregate net benefits to society."[115] Further, the order required agencies to submit *all* proposed and final regulations to the Office of Information and Regulatory Affairs ("OIRA") within the Office of Management and Budget ("OMB") for centralized review.[116] An agency that proposed a regulation that imposed costs on industry or consumers had to submit a formal CBA, known as a regulatory impact analysis, alongside any proposed or final rule. When OIRA

111. Transcript of October 28, 1980 Carter-Reagan Presidential Debate, COMM'N ON PRESIDENTIAL DEBATES, http://www.debates.org/index.php?page=october-28-1980-debate-transcript [https://perma.cc/LUD7-M259]; *see also* REVESZ & LIVERMORE, *supra* note 21, at 24.

112. On his first working day in office, President Reagan announced the formation of a cabinet-level Task Force on Regulatory Relief chaired by Vice President George Bush and instructed it "[t]o cut away the thicket of irrational and senseless regulations." Percival, *supra* note 48, at 127, 148; *see also* Ronald Reagan's Jan. 22, 1981 Remarks Announcing the Establishment of the Presidential Task Force on Regulatory Relief, AM. PRESIDENCY PROJECT, http://www.presidency.ucsb.edu/ws/?pid=43635 [https://perma.cc/QN8S-TL8P]; *Role of OMB in Regulation: Hearing Before the H. Subcomm. on Oversight and Investigations of the H. Energy & Commerce Comm.*, 97th Cong. 43 (1981). The Task Force immediately suspended two hundred pending regulations, solicited corporate executives' help in pinpointing regulations that were unduly burdensome, and created a "hit list" of 119 existing rules and regulations designated for reconsideration, most of which were environmental or health and safety regulations. *See* Thomas O. McGarity, *Regulatory Reform in the Reagan Era*, 45 MD. L. REV. 253, 263 (1986); REVESZ & LIVERMORE, *supra* note 21, at 24–25.

113. Exec. Order No. 12,291, 46 Fed. Reg. 13,193 (Feb. 17, 1981).

114. *Id.* § 2(b) ("Regulatory action shall not be undertaken unless the potential benefits to society for the regulation outweigh the potential costs to society.").

115. *Id.* § 2(c).

116. *Id.* § 3.

determined that a significant regulation's CBA did not sufficiently maximize net benefits, it sent the regulation back to the agency.[117]

Reagan's executive review process was secretive and opaque. OIRA could block regulations indefinitely while review was pending; agencies could not publish a notice of proposed rulemaking—let alone a final rule—until OMB had completed its review.[118] Further, OMB was widely accused of entering into closed-door deals with intended regulated entities and then using cost-benefit analysis as a pretext for advancing industry aims.[119] In 1987, for example, Representative Henry Waxman entered a statement into the Congressional Record that accused President Reagan of "insisting on formal cost-benefit analysis which focus on industry costs . . . and making regulation dependent on the Office of Management and Budget with its subservience to the White House."[120] Finally, President Reagan installed deregulatory ideologues to implement the Order's mandate.[121] OIRA became known as a "black hole" for regulations—regulations that entered its ambit never saw light again.[122]

2. CBA Becomes an Entrenched, Bipartisan Practice

When President Bill Clinton took office in 1992, he maintained President Reagan's centralized, CBA-based regulatory review process but instituted some modest reforms aimed at making President Reagan's regulatory oversight framework "less biased against regulation, more consultative, more accessible, and more deferential to policy making by individual agencies."[123] Clinton's Executive Order 12,866[124] imposed more robust disclosure

117. *Id.*; *see also id.* § (1)(b)(1) (defining a "major" rule as any regulation with an annual economic effect of $100 million or more, that increased costs for industry or consumers, or that adversely affected competition or productivity).

118. *Id.* § (3)(f)(1).

119. REVESZ & LIVERMORE, *supra* note 21, at 27–29.

120. *Id.* at 25–26 (citing 133 CONG. REC. E3449-01 (Sep. 9, 1987) (extension of remarks by Rep. Waxman)).

121. *Id.* President Reagan appointed Murray L. Weidenbaum as the chair of his first Council of Economic Advisors; James Miller III as OIRA's administrator; and James Tozzi as OIRA's deputy administrator. *See* Percival, *supra* note 48, at 149–50.

122. Chris Mooney, *Paralysis by Analysis, Jim Tozzi's Regulation to End all Regulation*, 36 WASH. MONTHLY 23 (2004); *see also* REVESZ & LIVERMORE, *supra* note 21, at 27.

123. Peter M. Shane, *Political Accountability in a System of Checks and Balances: The Case of Presidential Review of Rulemaking*, 48 ARK. L. REV. 161, 174 (1994).

124. Exec. Order No. 12,866, 58 Fed. Reg. 51,735 (Sept. 30, 1993).

requirements to "ensure greater openness, accessibility, and accountability in the regulatory review process."[125] For example, OIRA officials had to disclose all communications with people not employed by the executive branch as well as maintain publicly available communication logs.[126] President Clinton also set deadlines on OIRA review to prevent the agency from "permanently stalling the implementation of a regulation."[127] The order further attempted to obviate some of the criticisms that CBA was biased toward industry by authorizing agencies to weigh "qualitative measures," including "distributive impacts" and "equity," when conducting cost-benefit analysis.[128] The order also indicated that the Clinton administration would be more selective about the imposition of CBA; the administration only required formal CBA for "economically significant" rules that would affect the economy by $100 million or more, and a summary of "costs and benefits" for other types of major rules.[129] Ultimately, President Clinton co-opted Reagan's regulatory oversight apparatus—including CBA—in order to promote pro-regulatory ends.[130]

President George W. Bush left President Clinton's reforms relatively untouched for the first six years of his presidency, but his staffing choices signaled that his administration would use CBA toward anti-regulatory ends.[131] In 2007, President Bush issued

125. *Id.* § 6(b)(4).

126. Steven Croley, *White House Review of Agency Rulemaking: An Empirical Investigation*, 70 U. CHI. L. REV. 821, 827 (2003).

127. REVESZ & LIVERMORE, *supra* note 21, at 32; *see also* Croley, *supra* note 126, at 827.

128. Exec. Order No. 12,866 § 1(a).

129. Croley, *supra* note 126, at 827.

130. Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2282 (2001) ("But to a considerable extent, Clinton built on the legacy Reagan had left him to devise a new and newly efficacious way of setting the policy direction of agencies—of converting administrative activity into an extension of his own policy and political agenda. In so doing, Clinton also showed that presidential supervision of administration could operate, contrary to much opinion, to trigger, not just react to, agency action and to drive this action in a regulatory, not deregulatory, direction.").

131. In 2001, President George W. Bush installed John Graham as head of OIRA. John Graham has spent his career advocating for regulatory CBA and founded the Harvard Center for Risk Analysis. *See* ACKERMAN & HEINZERLING, *supra* note 20, at 110–11, 125–30. Reagan-era OIRA head Wendy Gramm praised Graham's commitment to cost-benefit analysis in particular, stating that he would be "well-versed and knowledgeable about the importance of analyzing risks and the risks of regulations," and would help the nation get the "most from the regulatory dollar." Bonner R. Cohen, *John Graham Set to Breathe New Life into OIRA*, HEARTLAND, May 1, 2001, https://www.heartland.org/news-opinion/news/john-graham-set-to-breathe-new-life-into-oira [https://perma.cc/SJ7D-TU86]. Environmental groups vehemently opposed his nomination, which they dubbed a "nightmare." REVESZ AND

Executive Order 13,422, which amended President Clinton's executive order so as to further centralize regulatory review and executive control over agency decision-making.[132] Some characterized the order as a "'power grab' by the White House that undermined public protections and congressional authority."[133] The order required agencies to identify a "specific market failure" prior to promulgating regulations, subject guidance documents and regulations to OIRA review, and designate a presidential appointee to act as a "regulatory policy officer" with the authority to approve or deny rulemaking efforts.[134] Notably, the order required agencies to identify "the combined aggregate costs and benefits" of *all* proposed regulations in order "to assist with the identification of priorities,"[135] defining CBA as a central mechanism in agency decision-making.

When President Barack Obama took office, he immediately repealed President Bush's amendments to the OIRA review process and returned regulatory review to the status quo under President Clinton.[136] Subsequently, he further cemented the bipartisan consensus in favor of centralized regulatory review and cost-benefit analysis.[137] First, President Obama installed CBA proponent Cass Sunstein as head of OIRA.[138] Conservatives lauded the appointment; progressives "worried about his insistence on tying regulations to cost-benefit analysis."[139]

LIVERMORE, *supra* note 21, at 40. The Natural Resources Defense Council, for example, feared that Graham would apply "pro-industry, anti-consumer, anti-environment cost-benefit analyses to regulations." *Id.* For the most part, Graham's tenure confirmed their fears. *See* ACKERMAN & HEINZERLING, *supra* note 20, at 169; Steve Weinberg, *Mr. Bottom Line*, ONEARTH, Spring 2003, at 33. When Graham stepped down, President Bush circumvented congressional review and appointed another anti-regulatory ideologue to head OIRA—Susan Dudley—during a Senate recess. REVESZ & LIVERMORE, *supra* note 21, at 41–42.

132. *See* Exec. Order No. 13,422, 72 Fed. Reg. 2763 (Jan. 23, 2007).

133. CURTIS W. COPELAND, CONG. RESEARCH SERV., RL33862, CHANGES TO OMB REGULATORY REVIEW PROCESS BY EXECUTIVE ORDER 13422, at CRS-1 (2007).

134. Exec. Order No. 13,422 § 5(b).

135. *Id.* § 4(c).

136. *See* Exec. Order No. 13,497, 74 Fed. Reg. 6113 (Feb. 4, 2009).

137. Michael A. Livermore & Richard L. Revesz, *Retaking Rationality Two Years Later*, 48 HOUS. L. REV. 1, 13 (2011).

138. *President Obama Announces Another Key OMB Post,* WHITE HOUSE OFF. PRESS SEC'Y, Apr. 20, 2009, https://www.whitehouse.gov/the-press-office/president-obama-announces-another-key-omb-post [https://perma.cc/AJ7P-XADL].

139. John Carey, *Cass Sunstein: What Kind of Regulation Czar?*, BLOOMBERG NEWS, Feb. 25, 2009, http://www.bloomberg.com/bw/stories/2009-02-25/cass-sunstein-what-kind-of-regulation-czar [https://perma.cc/PH6E-M5BA].

Next, President Obama issued Executive Order 13,563, which further entrenched CBA as a bipartisan regulatory review mechanism.[140] According to the Obama administration, the order aims to "promote public participation, improve integration and innovation, increase flexibility, ensure scientific integrity, and increase retrospective analysis of existing rules."[141] The order also specifically invokes CBA.[142] Notably, it requires that an agency "propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs," "tailor its regulations to impose the least burden on society," and select only "those approaches that maximize net benefits."[143] This expansion of quantitative analysis promotes formal CBA, while the emphasis on scientific integrity addresses the criticisms that the methodology harbors bias. The retrospective assessment provision expands the scope of CBA by applying the methodology to existing rules.

While agencies pre-*Michigan* could consider cost when regulating pursuant to some environmental health and safety statutes (but were never required to do so), executive action has required all agencies to conduct formal CBA in regulatory impact analyses that accompany all economically significant rulemakings. Democratic presidents following Reagan have tempered the methodology's anti-regulatory biases, recasting formal CBA as a hallmark of reasoned decision-making rather than a pretext for quashing regulations. To that end, the executive branch requires informal CBA at all steps in the decision-making process and formal CBA before significant regulations are implemented.

IV. THE *MICHIGAN* DECISION

A. Overview

In *Michigan*, the Supreme Court held that EPA unreasonably ignored costs when deciding to regulate power plants in accordance with section 112 of the Clean Air Act.[144] Justice Scalia,

140. *See* Exec. Order No. 13,563, 76 Fed. Reg. 3821 (Jan. 21, 2011).

141. Cass R. Sunstein, Office of Mgmt. & Budget, M-11-10, Memorandum for the Heads of the Executive Departments and Agencies, and of Independent Regulatory Agencies (2011).

142. Cass R. Sunstein, *The Office of Information and Regulatory Affairs: Myths and Realities*, 126 HARV. L. REV. 1838, 1846 (2013).

143. Exec. Order No. 13,563 § 1(b).

144. Michigan v. EPA, 135 S. Ct. 2699, 2712 (2015).

writing for the majority, framed the decision as an analysis of the phrase "appropriate and necessary" in that provision and found that the term required cost considerations. He further clarified that it was insufficient that EPA had later submitted a regulatory impact analysis that compared costs and benefits and indicated the agency would consider costs when setting emission standards. Rather, Justice Scalia held that the threshold determination to regulate power plants must encompass cost considerations. As such, *Michigan* represents a pointed departure from Court precedent. *Michigan* is the first instance where the Court has required cost considerations when the authorizing statute is ambiguous on the necessity of such considerations, rather than deferring to an agency's decision on the matter. Further, *Michigan* represents the first time the Court has inserted itself into the regulatory process and directly commented on when cost considerations, if required, should take place.

The Clean Air Act establishes a comprehensive regulatory scheme that controls air pollution from a variety of stationary sources like power plants and factories as well as mobile sources like cars and airplanes.[145] Section 112 of the Clean Air Act as originally enacted in 1970 directs EPA to regulate all air pollutants "which may reasonably be anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness."[146] While the goal of section 112 is to reduce "hazardous air pollutants" in general, initial regulations established standards for only seven pollutants.[147] Consequently, Congress amended section 112 to ensure more effective emission controls. The National Emission Standards for Hazardous Air Pollutants ("NESHAP") Program, established by the Clean Air Act Amendments of 1990 and codified at 42 U.S.C. § 7412, instructs EPA to set ambitious, technology-forcing limits on mercury and over 180 other hazardous air pollutants emitted from stationary sources. NESHAPs automatically apply to "major sources" that emit more than ten tons of a single pollutant or more than twenty-five tons of a combination of pollutants per year.[148] An "area source"—a stationary source that does not meet this threshold—is subject to

145. 42 U.S.C. §§ 7401–7671q (2012).
146. Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676, 1685.
147. *See* S. REP. NO. 101–228, at 131 (1989).
148. 42 U.S.C. § 7412(a)(1).

NESHAPs if the source "presents a threat of adverse effects to human health or the environment . . . warranting regulation."[149]

The 1990 amendments also established the Acid Rain Program, a cap-and-trade approach designed to reduce emissions of two particular pollutants—sulfur dioxide (SO_2) and nitrous oxide (NO_x)—which, when released into the atmosphere, combine to create acid rain.[150] The Acid Rain Program capped SO_2 emissions from fossil-fuel-fired electric power plants nationwide. Congress initially exempted power plants from the requirements of the NESHAP Program because it believed that compliance with the Acid Rain Program might indirectly result in compliance with NESHAPs—for example, a scrubber installed to capture SO_2 might have the ancillary benefit of capturing other hazardous air pollutants as well.

Congress, acknowledging the uncertainty inherent in projecting the long-term effects of its Acid Rain Program, directed EPA to "perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by [power plants] of [hazardous air pollutants] after imposition of the requirements of this chapter."[151] If EPA found NESHAP regulation to be "appropriate and necessary after considering the result of the study," the agency was to regulate power plants under the NESHAP Program.[152] EPA concluded this study in 1998 and then in 2000 released a regulatory finding that regulation of power plants was "appropriate and necessary" pursuant to section 112 of the Clean Air Act.[153] In its 2012 final Mercury and Air Toxics Standards ("MATS") rule, EPA affirmed its earlier finding. Specifically, EPA found that such regulation was "appropriate" because power plant emissions posed serious public health hazards—air emissions from power plants, for example, are the largest domestic source of mercury, a potent neurotoxin—and "necessary" because existing requirements under the Clean Air Act would not adequately

149. *Id.* § 7412(c)(3).

150. Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2468, 2468–69.

151. 42 U.S.C § 7412(n)(1)(A).

152. *Id.*

153. Notice of Regulatory Finding, 65 Fed. Reg. 79,825, 79,825–30 (Dec. 20, 2000); *see also* Final Rule: National Emission Standards for Hazardous Air Pollutants, 77 Fed. Reg. 9304 (Feb. 16, 2012).

address these hazards.[154] After making this threshold determination, EPA then began the labor-intensive process of designing regulations, including categorizing and sub-categorizing different types of power plants, determining a de minimis emission limit, and designing emission standards.

In a per curiam opinion, the D.C. Circuit upheld EPA's "appropriate and necessary" finding, with Judge Kavanaugh concurring in part and dissenting in part.[155] The D.C. Circuit determined that "appropriate and necessary" in section 112 was an ambiguous phrase and upheld EPA's determination that the phrase neither compelled nor precluded cost considerations; thus, EPA's decision not to consider costs at the listing stage was a reasonable exercise of its agency discretion.[156] The Court relied heavily on *American Trucking* to support this holding, citing that decision's "refus[al] to find implicit in ambiguous sections of the [Clean Air Act] an authorization to consider costs that has elsewhere, and so often, been expressly granted."[157]

The Supreme Court granted certiorari on the question of whether EPA's decision not to consider costs when making its threshold "appropriate and necessary" finding was reasonable.[158] In the opinion for the Court, Justice Scalia, joined by Justices Roberts, Kennedy, Thomas, and Alito, reversed the D.C. Circuit. EPA's interpretation of "appropriate and necessary" failed *Chevron*'s "reasonableness" test as well as *State Farm*'s requirement that agencies consider all "relevant factors" when promulgating rules.[159] A dissent by Justice Kagan, joined by Justices Ginsburg, Breyer, and Sotomayor, agreed that the MATS rule would be unreasonable if it did not take costs into account, but argued that EPA had considered costs, either implicitly or explicitly, at every step of the rulemaking process that followed the threshold determination to

154. Final Rule: National Emission Standards for Hazardous Air Pollutants, 77 Fed. Reg. at 9310 (noting that the MATS rule is necessary because the identified or potential hazards to public health or the environment will not be adequately addressed by the imposition of other requirements of the Clean Air Act).

155. White Stallion Energy Ctr., LLC v. EPA, 748 F.3d 1222, 1230 (D.C. Cir. 2014).

156. *Id.* at 1235.

157. *Id.* at 1238 (citing Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 467 (2001)).

158. Michigan v. EPA, 135 S. Ct. 2699, 2704 (2015).

159. *Id.* at 2707; *see also* Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). Justice Thomas also filed a concurring opinion in *Michigan* questioning the constitutionality of the Court's practice of deferring to an agency's reasonable statutory interpretation pursuant to *Chevron*. *Michigan*, 135 S. Ct. at 2712 (Thomas, J., concurring).

regulate emissions from power plants. Requiring such a consideration at the listing stage, wrote Kagan, would constitute an impermissible "micromanagement of EPA's rulemaking."[160]

As such, *Michigan* demonstrates the most conspicuous partisan split of the Court's post-*Chevron* cost-consideration jurisprudence. Conservatives Scalia, Roberts, Thomas, and Alito, joined by swing-vote Kennedy, ruled against a statutory interpretation that expanded EPA's regulatory clout vis-à-vis power plants, while liberals Kagan, Ginsburg, Breyer, and Sotomayor argued to uphold EPA's rulemaking. By contrast, in *Whitman v. American Trucking Ass'ns*, the Court unanimously held that section 109 of the Clean Air Act precluded cost considerations. In *Entergy v. Riverkeeper,* the majority opinion written by Justice Scalia and joined by Justices Roberts, Thomas, Kennedy, and Alito upheld EPA's interpretation of section 3169(b) of the Clean Water Act as permitting informal CBA that consequently limited the stringency of its utility regulations, but progressive Justice Breyer's partial concurrence precludes arguments that the decision in *Entergy* was a straightforward product of ideology.[161] Similarly, Ginsburg's majority opinion in *EPA v. EME Homer City Generation* crossed ideological boundaries in upholding EPA's interpretation that section 110 of the Clean Air Act permits cost considerations when determining how to regulate interstate air pollution; Roberts, Kennedy, Beyer, Sotomayor and Kagan joined Ginsburg (Alito took no part in consideration).[162]

That an application of the *Chevron* test could result in an ideologically-tinged result is not surprising. Recent empirical studies show not only that the Supreme Court applies *Chevron* inconsistently,[163] but also that a decision's application of the *Chevron* framework often evinces the political convictions of its authors.[164] That is, justices are more likely to defer to an agency's

160. *Michigan*, 135 S. Ct. at 2714–15 (Kagan, J., dissenting).

161. *See generally* Entergy Corp. v. Riverkeeper, Inc., 556 U.S. 208, 219 (2009).

162. EPA v. EME Homer City Generation, L.P., 134 S. Ct. 1584, 1590 (2014).

163. See William N. Eskridge, Jr. & Lauren E. Baer, *The Continuum of Deference: Supreme Court Treatment of Agency Statutory Interpretations from Chevron to Hamdan*, 96 GEO. L. J. 1083, 1098 (2008); Thomas J. Miles & Cass R. Sunstein, *Do Judges Make Regulatory Policy? An Empirical Investigation of Chevron*, 73 U. CHI. L. REV. 823, 870 (2006); Christine Kexel Chabot, *Selling Chevron*, 67 ADMIN. L. REV. 481, 490 (2015).

164. Miles & Sunstein, *supra* note 163, at 870 ("We have seen that the most conservative members of the Court have been significantly more likely to uphold agency decisions under the two Bush Administrations than under the Clinton Administration—and that the most

statutory interpretation when it aligns with their own ideological viewpoints. For example, while Justice Scalia agreed with 65% of agency interpretations overall, he agreed with only 54% of liberal interpretations compared to 72% of conservative interpretations.[165] Scalia's contributions to the cost consideration jurisprudence discussed above follows this vein as well. For example, he applied *American Trucking*'s presumption against cost considerations in his *Homer City* dissent but cabined the decision's reach in the *Entergy* and *Michigan* majority opinions. The implicitly purposivist[166] bent of the *Michigan* majority opinion likewise demonstrates analytic inconsistencies that betray Scalia's conservative affinities.

B. Justice Scalia's Opinion for the Court

Justice Scalia's opinion is ostensibly textualist: it frames its analysis as an inquiry into the plain meaning of the "appropriate and necessary" standard in section 112 and finds that the phrase axiomatically encompasses cost considerations. Thus, EPA's interpretation of section 112—that it permits a multi-stage regulatory process that channels cost consideration to later stages of the rulemaking process—is unreasonable.

Justice Scalia's opinion situates this analysis under *Chevron*, but effectively reduces the two-part test to a single question: was EPA's interpretation of "appropriate and necessary" in section 112 a "reasonable resolution of an ambiguity in a statute that the agency administers"? This approach skips over the first step in the traditional two-step approach of *Chevron*, which asks whether Congress has spoken directly to the matter that the agency has interpreted. Jonathan Cannon argues that, in the past, Justice Scalia has employed this tactic so that his analysis could focus either on the plain language of the statute (the traditional "step one" analysis) *or* on the permissibility of an agency's actions (the

liberal members of the Court show the opposite tendency. We have also seen that under the Chevron framework, the liberal justices are more likely to uphold liberal agency interpretations than conservative ones—and the conservative justices show the opposite tendency.").

165. Cannon, *supra* note 8, at 447 (citing Eskridge & Baer, *supra* note 163, at 1154 tbl.20).

166. Purposivism is a theory that statutes should be construed to reflect the drafters' intent, as compared to textualism. *See* William N. Eskridge, Jr. & Philip P. Frickey, *Statutory Interpretation as Practical Reasoning*, 42 STAN. L. REV. 321, 324 (1989).

traditional "step two" analysis).[167] Collapsing the analytic framework of *Chevron,* Cannon claims, enables a more expansive form of judicial review than the *Chevron* test imagines.[168] Justice Scalia employed the same effect in *Michigan*; his analysis conflates *Chevron*'s two prongs and consequently addresses the plain meaning of the statute and the permissibility of an agency's statutory interpretation in one maneuver.[169] To wit, Justice Scalia never determined whether "appropriate and necessary" is an ambiguous phrase and, if not, what its plain meaning is; rather, he found that the phrase "naturally and traditionally" includes a consideration of cost.[170]

Justice Scalia's opinion further allows for aggressive judicial review by narrowing *Chevron*'s "reasonableness" test such that only one interpretation of section 112 can satisfy it. Previous invocations of *Chevron*'s step two analysis stated that *any* reasonable statutory interpretation was permissible. In *Entergy*, for example, Justice Scalia, writing for the majority, upheld EPA's actions because the agency's statutory interpretation governs "if it is a reasonable interpretation of the statute—not necessarily the only possible interpretation, nor even the interpretation deemed most reasonable by the courts."[171] In *Michigan*, Justice Scalia summarily dismissed EPA's argument that reading section 112 in harmony with the rest of the statute—such that power plants would be treated the same way as other stationary sources of air pollutants that threaten public health—is a reasonable interpretation.[172] Rather, the field of reasonable alternatives narrows such that there is only one reasonable interpretation of section 112—the Court's.

167. Cannon, *supra* note 8, at 448.

168. According to Cannon, in *Entergy*,

> the single-inquiry approach may have the subtle effect of increasing the discretion of the reviewing court by allowing it to deploy the traditional tools of interpretation either in a vigorous search for definitive statutory meaning (the traditional Step 1 analysis) or in a more deferential examination of permissibility (the traditional Step 2 analysis) . . . . [E]liding Steps 1 and 2 gives Justice Scalia greater freedom to direct his textualist tools either to limit or to enhance agency discretion according to his substantive preferences.

Id. (internal quotation marks omitted).

169. Michigan v. EPA, 135 S. Ct. 2699, 2707 (2015).

170. *Id.*

171. Entergy Corp. v. Riverkeeper, Inc., 556 U.S. 208, 216–18 (2009) (citing Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984)).

172. *Michigan*, 135 S. Ct. at 2710.

Justice Scalia did not accept the dissent's argument that EPA *had* considered costs in its rulemaking, just at a later stage of its decision-making process. Cass Sunstein explains that multi-stage decision-making accounts for much of the cost consideration in the Clean Air Act:

> National [air quality] standards are issued in what is at least nominally a cost-blind manner, but costs emphatically and openly play a part at other stages of the process, in the design and enforcement of state implementation plans. . . . [I]t follows that even if the relevant provisions of the Clean Air Act are taken to be ambiguous, it would be reasonable, under *Chevron* Step Two, to understand national standard setting to be cost-blind, not because cost-blindness is itself reasonable (it isn't), but because costs are taken into account at later stages of a multistage inquiry."[173]

While the dissent urged the Court to take this holistic view of the rulemaking process into account, Justice Scalia refused to engage with this argument because it fell outside the scope of a textualist inquiry. Rather, he wrote, "[t]he question before us" is only "the meaning of the 'appropriate and necessary' standard that governs the initial decision to regulate."[174] Justice Scalia proffered Justice Breyer's partial concurrence in *Entergy* as his sole support for the claim that the phrase mandates cost consideration at the threshold stage.[175] In both *American Trucking* and *Entergy,* Justice Breyer advocated for a modest presumption in favor of an informal CBA in order to guard against irrational decision-making.[176] These two opinions rely in equal parts on a close look at legislative history as well as Justice Breyer's normative judgments regarding rational decision-making—both extra-statutory arguments, to be sure. That Justice Scalia appealed to purposivism is not in itself significant. Rather, it is significant that, by couching his purposivist analysis under the guise of textualism, Justice Scalia was able to disregard the dissent's purposivist argument and supplant it with his own.

The Court in *American Trucking* denied EPA the authority to consider costs in part because such authority had "elsewhere, and

173. Cass R. Sunstein, *Cost-Benefit Default Principles*, 99 MICH. L. REV. 1651, 1695–96 (2001).

174. *Michigan*, 135 S. Ct. at 2709.

175. *Id.* at 2708 (citing *Entergy Corp.*, 556 U.S. at 233 (Breyer, J., concurring in part and dissenting in part)).

176. *See supra* Section III.B.

so often, been expressly granted;"[177] in *Michigan*, Justice Scalia cabined that opinion. According to the majority, *American Trucking* "establishes the modest principle that where the Clean Air Act expressly directs EPA to regulate on the basis of a factor that on its face does not include cost, the Act normally should not be read as implicitly allowing the Agency to consider cost anyway. That principle has no application" for section 112 because "appropriate and necessary" is a "comprehensive criterion" that "plainly subsumes consideration of cost."[178] This treatment of *American Trucking* is inconsistent with Justice Scalia's dissent in *Homer City*, just a year earlier. There, Justice Scalia relied on *American Trucking* to dismiss EPA's interpretation of "amounts" of air pollutants "that contribute significantly to nonattainment" of air quality standards in downwind states as permitting cost-effective controls—that is, requiring that states decrease emissions in amounts determined by the price of control technologies—as "utterly fanciful" and in contravention of the "plain logic of the statute."[179]

Ultimately, Justice Scalia's truncated application of the *Chevron* test, narrow application of the *Chevron* "reasonableness" inquiry, implicitly purposivist reasoning, and inconsistent treatment of precedent indicate that this opinion was ideologically motivated with the aim of curtailing stringent regulation of power plant emissions. Further, Justice Scalia conflated the concept of cost considerations (which does not seek to optimize social welfare) with CBA (which does).[180] While he nominally required cost considerations and explicitly cautioned that the Court did not require formal CBA, his opinion often discusses weighing costs and benefits against each other and consequently indicates a presumption in favor of informal CBA.[181] Cautious agencies seeking to withstand judicial review after *Michigan*, armed with the knowledge that the *Chevron* test does not necessarily ensure agency deference and that the Court has recently exhibited an anti-

177. Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 467 (2001).

178. *Michigan*, 135 S. Ct. at 2709.

179. EPA v. EME Homer City Generation, L.P., 134 S. Ct. 1584, 1611 (2014) (Scalia, J., dissenting).

180. *See supra* Part II.

181. *Michigan*, 135 S. Ct. at 2711 ("We need not and do not hold that the law unambiguously required the Agency, when making this preliminary estimate, to conduct a formal cost-benefit analysis in which each advantage and disadvantage is assigned a monetary value. It will be up to the Agency to decide (as always, within the limits of reasonable interpretation) how to account for cost.").

regulatory stance, should conduct informal CBA at the outset of the rulemaking process.

C. Justice Kagan's Dissent

Justice Kagan framed her dissent as an inquiry into the reasonableness of EPA's decision to employ a multi-stage regulatory process for power plants rather than an investigation into the plain meaning of "appropriate and necessary." The dissent did not argue that cost-blind decision-making is reasonable, but rather that within the broader context of the regulatory process as a whole, EPA had incorporated cost considerations into its rulemaking.[182] Further, according to Kagan, EPA had sound reasons for predicating its "appropriate and necessary" finding on the results of the public health hazards study and "channeling cost considerations to phases of the rulemaking in which emissions levels are actually set."[183]

Justice Kagan's dissent argued the Court should uphold *any* reasonable interpretation of section 112, thus applying *Chevron* in a more typical fashion.[184] Further, Justice Kagan recognized that capacious terms such as "appropriate and necessary" are "inherently context-dependent" and that the agency did not interpret this standard "in a sterile textual vacuum, but in the context of implementing policy decisions in a technical and complex arena."[185] Thus, the dissent found EPA's interpretation of section 112 was reasonable because it harmonized the agency's treatment of power plants with the NESHAP Program's treatment of other stationary sources.[186]

182. *Id.* at 2716 (Kagan, J., dissenting).

183. *Id.* at 2717.

184. *Id.* at 2718 ("EPA's experience and expertise in that arena—and courts' lack of those attributes—demand that judicial review proceed with caution and care.").

185. *Id.* at 2718 (citing Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 863–65 (1984)).

186. Justice Kagan explained that section 112 mandated a "wait and see" approach, which directed EPA to study whether the 1990 Acid Rain Program had the ancillary benefit of reducing other types of emissions from power plants. *Id.* at 2715. If EPA's studies revealed that power plants remained a public health hazard even after the implementation of the 1990 Acid Rain Program, then EPA was "to regulate power plants as it does every other stationary source." *Id.* at 2716. The regulatory path EPA chose was reasonable not only because it "parallels the one it has trod in setting emissions limits, at Congress's explicit direction, for every other source of hazardous air pollutants over two decades," but also because the multi-stage inquiry is a practical solution to a complex problem. *Id.* at 2715. "Indeed," wrote Justice Kagan, "EPA could not have measured costs at the process's initial stage with any accuracy." *Id.* at 2714–15.

Next, Justice Kagan elaborated the ways in which EPA *did* consider costs in the stages of the rulemaking process that followed the "appropriate and necessary" finding. First, EPA intrinsically accounted for cost when calculating its floor standards (minimum emission levels) as the average emission level of the best-performing 12% of power plants in a given category or subcategory of power plants.[187] This standard took costs into account because it was predicated on the observed performance of existing power plants—if the emission level was not economically feasible, these plants would be out of business.[188] EPA further tailored these floor standards by subcategorizing power plants based on their size, type of fuel, and plant type so that power plants would only have to meet "emissions levels previously achieved by peers facing comparable cost constraints, so as to further protect plants from unrealistic floor standards."[189] EPA then adopted additional "compliance options" to "minimize costs" associated with attaining a given floor standard and in most instances did not impose beyond-the-floor standards because of concerns about compliance costs.[190] Finally, EPA conducted a formal CBA in its regulatory impact statement, which found that the regulation would cost under $10 billion a year and yield between $37 and $90 billion in benefits.[191]

In sum, the dissent admonished the majority for its "peculiarly blinkered," context-blind analysis, and its intrusive inquiry into EPA's rulemaking.[192] The dissent found that EPA's determination that it was "appropriate" to consider costs at the standard-setting phase of regulation rather than at the outset of the regulatory process was reasonable because this multi-stage regulatory process mimicked the congressionally mandated procedures EPA uses when regulating other stationary sources. Further, this approach obviated the practical difficulties of measuring costs before

187. *Id.* at 2718–19.

188. *Id.*

189. *Id.*

190. *Id.* at 2720–21 (citing Final Rule: National Emission Standards for Hazardous Air Pollutants, 77 Fed. Reg. 9304, 9306, 9331 (Feb. 16, 2012)).

191. *Id.* at 2721 (citing Proposed Rule: National Emission Standards for Hazardous Air Pollutants, 76 Fed. Reg. 24,976, 25,072–78 (May 3, 2011); Final Rule: National Standards for Hazardous Air Pollutants, 77 Fed. Reg. at 9305–06, 9424–32).

192. *Id.* at 2714–15.

rulemaking had commenced. Further, EPA gave these reasons when it released its threshold finding.[193]

V. A PRESUMPTION IN FAVOR OF COST CONSIDERATION

Michigan's implications are limited practically because the MATS rule is still in effect and substantively because the decision is a statutory analysis case, arguably cabined to section 112 of the Clean Air Act. However, given the purposivist bent of the *Michigan* opinion and its searching application of the *Chevron* test, it seems likelier that the decision stands for a pro-informal-CBA presumption. As such, agencies should explicitly include informal CBA at the outset of their rulemaking process when determining whether regulation is warranted.

A. The MATS Rule Is Still in Effect

Notably, the Supreme Court did not invalidate the MATS rule.[194] Rather, the majority remanded the issue to the D.C. Circuit without vacatur.[195] On December 15, 2015, the D.C. Circuit decided to leave the rule in place while EPA responded to the Supreme Court's concerns.[196] Neither the Supreme Court nor the D.C. Circuit gave any explanation for their decisions to leave the MATS rule in place, but the impetus was most likely practical. At the time, most power plants were already abiding by the regulation; between January and April 2016, 87.4 gigawatts of coal-fired plants installed compliance technology, while 19.7 gigawatts retired.[197] Further, all indications pointed to EPA reaffirming the rule, and indeed, the agency did so on April 14, 2016. The courts most likely anticipated that invalidating the rule would cause chaos in the power sector.

By the time the D.C. Circuit decided the issue there was ample evidence that EPA would reaffirm the rule. In November 2015, EPA issued a supplemental proposed finding that the direct and indirect costs of compliance with the MATS rule were reasonable,

193. *Id.* at 2725 (citing Notice of Regulatory Finding, 65 Fed. Reg. 79,825, 79,830 (Dec. 20, 2000)).

194. *Michigan*, 135 S. Ct. at 2712.

195. *Id.*

196. *See* White Stallion Energy Ctr., LLC, v. EPA, No. 12-1100, 2015 WL 11051103 (D.C. Cir. Dec. 15, 2015).

197. *Today in Energy*, U.S. ENERGY INFO. ADMIN. (July 7, 2016), http://www.eia.gov/todayinenergy/detail.cfm?id=26972 [https://perma.cc/933Z-TATQ].

so cost considerations supported its appropriate and necessary finding.[198] EPA used a variety of metrics to measure the economic effects of compliance costs across the power plant sector as a whole. EPA found that sector-wide, the cost of complying with the MATS rule was $9.6 billion dollars in 2015, which amounted to only 2.7% of power plants' revenues and 3% of capital expenditures in 2011. EPA also found that compliance would not impact the power sector's generating capacity and would increase the price of electricity by 3.1% nationally, and that such a figure was well within historical price fluctuations measured between 2000 and 2011. Further, the rule would most impact power plants in sectors with prices lower than the national average. Finally, EPA also found that the MATS rule would yield between $37 and $90 billion in benefits in 2015.[199] These figures surely offered compelling evidence to the D.C. Circuit that EPA would reaffirm the rule to the satisfaction of the Supreme Court.

Most power plants had already invested in pollution controls necessary to meet the MATS rule or had shut down in anticipation of the rule by the time the *Michigan* decision was released.[200] In fact, industry interveners that had already invested in control technologies argued *against* vacating the rule because they "expected higher revenues to justify the higher capital and operating costs under MATS."[201] Furthermore, if the D.C. Circuit had vacated the rule, EPA would have had to undertake a new rulemaking process complete with a notice and comment period, and it could have taken years until the MATS standards were back in place. Such a situation would have imposed an unfair and "disruptive delay" to those members of the power sector already in compliance with the rule.[202] After EPA reaffirmed its rule, petitioners again sought certiorari; their request was denied.[203]

198. Proposed Supplemental Finding to Regulate Hazardous Air Pollutants, 80 Fed. Reg. 75,025, 75,025–42 (Dec. 1, 2015).

199. *See generally id.*

200. Patrick Ambrosio, *Judges Question Need to Vacate EPA Mercury Rule*, BLOOMBERG BNA, Dec. 7, 2015, http://www.bna.com/judges-question-need-n57982064472 [https://perma.cc/FD26-7PDC].

201. *Id.* (citing Brendan Collins, an attorney representing Calpine Corporation and Exelon Corporation).

202. *Id.*

203. Michigan v. EPA, No. 15-1152, 2016 WL 1046833 (U.S. June 13, 2016).

B. *Michigan* Is a Statutory Analysis Case

Understood narrowly, *Michigan* is a case about the meaning of the phrase "appropriate and necessary" when it appears in a statute. Indeed, Justice Scalia explicitly cabined his majority opinion in this way.[204] If such were the case, the holding in *Michigan* would have limited implications: of the thirty-nine statutes that include the phrase "appropriate and necessary," only four use it in the same manner as section 112(n)(1)(A) of the Clean Air Act. That is, in only three other instances does Congress direct an agency to determine whether the regulation of a particular issue is in itself appropriate and necessary.[205]

This narrow reading of *Michigan* finds support in the line of cases following *Industrial Union Department v. America Petroleum Institute*, commonly known as the Benzene Case.[206] In 1980, a plurality of the Supreme Court examined section 6(b)(5) of the Occupational Safety and Hazards Act, which directs OSHA to regulate worker health and safety hazards "to the extent feasible."[207] The Court looked to section 3(8) of the same statute, which defined an "occupational safety and health standard" as a standard which requires "conditions . . . *reasonably necessary or appropriate* to provide safe or healthful employment."[208] The Court found that phrase imposed some bounds on agency discretion and consequently required OSHA to make a feasibility finding and a finding of significant harm before regulating hazardous chemicals under section 6(b)(5).[209] Subsequent court decisions have interpreted "to the extent feasible" in the context of section 6(b)(5) as mandating a feasibility finding,[210] and "reasonably necessary or appropriate" in the context of section 3(8) as mandating informal CBA, but have generally cabined the Benzene Case's reach to this

204. Michigan v. EPA, 135 S. Ct. 2699, 2709 (2015).

205. *See* 42 U.S.C.. § 7412 (2012); 49 U.S.C. § 44903 (2012); 21 U.S.C. § 360(d) (2012); *id.* § 2223. In seven of the statutes, Congress justifies its action by designating it as "appropriate and necessary" toward some greater policy goal. In the remaining twenty-eight, Congress directs an agency to promulgate regulations that further statutory aims in an "appropriate and necessary" manner.

206. Indus. Union Dep't v. Am. Petroleum Inst., 448 U.S. 607 (1980).

207. 29 U.S.C. § 655(b)(5) (2012).

208. *Id.* § 652(8) (emphasis added).

209. *See Indus. Union*, 448 U.S. at 662.

210. Am. Textile Mfrs. Inst., Inc. v. Donovan, 452 U.S. 490, 508–09 (1981).

provision of OSHA.[211] This precedent supports a narrow reading of *Michigan*.

In contrast, a broad reading would suggest that *Michigan* espouses a presumption in favor of cost consideration—that agencies and reviewing courts should interpret similarly "capacious" and "comprehensive" phrases as "appropriate and necessary" within an authorizing statute as mandating cost considerations. The District Court for the District of Columbia's recent decision in *Metlife v. Financial Stability Oversight Council* did just that. There, the Court struck down the Financial Stability Oversight Council's ("FSOC") designation of MetLife as a "systemically important financial institution" because, while FSOC's enabling statute directed it to consider a long list of enumerated factors as well as "any other risk-related factors that [it] deems appropriate," the agency had not engaged in informal CBA.[212] The district court read *Michigan* outside its statutory context, striking down FSOC's designation because the agency "intentionally refused to consider the cost of regulation, a consideration that is essential to reasoned rulemaking" where the enabling statute mandated a consideration of all "appropriate" risk-related factors.[213] This expansive reading of *Michigan* seems to require a mandatory assessment of a regulation's costs wherever the word "appropriate" appears in a statute.

Many circuit court briefs and petitions for certiorari since *Michigan* have taken a similar tack, arguing, for example, that "unacceptable adverse effect" in a provision of the Clean Water Act, "any other matters the Administrator considers appropriate" in a provision of the SAFETY Act, and "reasonably available" or "applicable" in section 172 of the Clean Air Act mandate cost considerations or informal CBA because they are all "comprehensive criteria" like "appropriate and necessary."[214] Of

211. *See, e.g.*, Nat'l Grain & Feed Ass'n v. OSHA, 866 F.2d 717, 733 (5th Cir. 1988) ("The test under section 3(8) is an intermediate one between the feasibility mandate of section 6(b)(5) and a strict cost-benefit analysis that requires a more formal, specific weighing of quantified benefits against costs."); United Auto. Workers v. OSHA, 938 F.2d 1310 (D.C. Cir. 1991).

212. Metlife, Inc. v. Fin. Stability Oversight Council, No. CV 15-0045, 2016 WL 1391569, at *3 (D.D.C. Mar. 30, 2016) (citing 12 U.S.C. § 5323(a)(2)(K) (2012)).

213. *Id.*

214. Ohio v. Sierra Club, No. 15-684, 2015 WL 7567416, at *29 (U.S. Nov. 23, 2015); Mingo Logan Coal Co. v. EPA, No. 14-5305, 2015 WL 7887921, at *9 (D.C. Cir. Dec. 10,

course, statutes are replete with such capacious terms, which might prompt regulators to provide a cost-benefit balancing-based rationale for any proposed rule. Thus, *Michigan* could act as a foil for *American Trucking*. Where the latter held that agencies could only consider costs when Congress expressly granted such authority, the former might be construed as directing agencies to consider costs unless explicitly prohibited from doing so. And, as discussed above, the text of the *Michigan* opinion suggests that such cost considerations should take the form of informal CBA. Considering *Metlife* as well as the *Michigan* majority opinion's purposivist bent, it seems likely that *Michigan* could have broader applicability than the specific term "appropriate and necessary."

Whether read broadly or narrowly, *Michigan* does not stand for the proposition that costs are *always* a relevant factor. Some circuit court briefing and articles suggest that *Michigan* espouses a fundamental principle of administrative law—that no agency rulemaking can withstand "arbitrary and capricious" review under the Administrative Procedure Act ("APA") unless it considers costs.[215] Justice Scalia's opinion for the majority forecloses this view, first, because it explicitly frames the issue as an inquiry into the plain meaning of "appropriate and necessary,"[216] and second, because this inquiry is firmly rooted within the confines of the *Chevron* test (even if this test was creatively applied).[217] "Agency interpretations of the APA do not trigger *Chevron* deference because the APA is not a statute given over to a particular agency to administer."[218] Indeed, the MATS rule did not seek to interpret the APA, nor did *Michigan* review any EPA interpretation of the APA. Thus, *Michigan* does not implicate agency rulemaking procedures more generally but is rather confined to this particular section of the Clean Air Act.

That is not to say, however, that *Michigan* has no broader implications for judicial review. Rather, *Michigan* will probably

2015); Indep. Pilots Ass'n v. FAA, Nos. 11-1483 & 15-1027, 2015 WL 7352645, at *33 (D.C. Cir. Nov. 20, 2015).

215. *Indep. Pilots*, 2015 WL 7352645, at *22–23; *see also* Andrew M. Grossman, *Michigan v. EPA: A Mandate for Agencies to Consider Costs*, 2015 CATO SUP. CT. REV. 281, 294 (2015).

216. Michigan v. EPA, 135 S. Ct. 2699, 2709 (2015).

217. As the dissent noted, "The majority actually phrases [the] principle well, though honors it only in the breach." *Id.* at 2718 (Kagan, J., dissenting)

218. PETER L. STRAUSS ET AL., GELLHORN AND BYSE'S ADMINISTRATIVE LAW: CASES AND COMMENTS 275–76 (11th ed. 2011).

engender a more searching inquiry under *Chevron* "step two" in assessing the reasonableness of agency interpretations of ambiguous statutory provisions pertaining to cost consideration. *Michigan* is noteworthy in part because it is the first instance where the Court has not only decided *whether* an agency should consider costs and how formal or informal these considerations may be, but has ruled on *when* in the rulemaking process these considerations must take place. Prior to *Michigan*, several circuit courts explicitly indicated that an agency must consider costs at the threshold stage when determining whether to regulate, most notably in *Corrosion Proof Fittings v. EPA*, which admonished EPA for failing to investigate the whole range of regulatory alternatives at the outset of its rulemaking process. There, the Fifth Circuit advised that "EPA cannot simply skip several rungs" in its regulatory analysis.[219] Similarly, in *Business Roundtable v. SEC*, the D.C. Circuit invalidated an SEC rule that would have required public companies to permit shareholders to nominate candidates to their boards of directors. The D.C. Circuit found that the SEC's CBA was insufficiently formal and neglected to consider and quantify the costs companies and shareholders might have incurred as a result of election contests.[220] *Michigan* gives those courts that would like not only to assess an agency's cost consideration methodologies but also to scrutinize the particularities of its multi-stage regulatory process fodder to conduct a more searching review.

Lower courts that have cited *Michigan* thus far hint at this application. These courts have employed *Michigan* to simply invoke or fine-tune established principles of administrative law, such as *Chevron* deference[221] or *State Farm*'s holding that agencies must consider all "relevant factors" when promulgating rules.[222] Often, *Michigan* has stood for the seemingly innocuous proposition that a permissible agency interpretation under *Chevron* step two must also

219. Corrosion Proof Fittings v. EPA, 947 F.2d 1201, 1217 (5th Cir. 1991); *see also* Am. Equity Inv. Life Ins. Co. v. SEC, 613 F.3d 166 (D.C. Cir. 2010); Ala. Power Co. v. OSHA, 89 F.3d 740 (11th Cir. 1996); Int'l Union v. OSHA, 938 F.2d 1310 (D.C. Cir. 1991); Nat. Res. Def. Council, Inc. v. Herrington, 768 F.2d 1355 (D.C. Cir. 1985).

220. Bus. Roundtable v. SEC, 647 F.3d 1144, 1149 (D.C. Cir. 2011); *see also* Frank G. Zarb, Jr., *The SEC vs. the Court: How the Battle Over Cost-Benefit Analyses Might Transform the Agency*, 38 ADMIN. & REG. L. NEWS 7, 9 (2013).

221. Barks v. Silver Bait, LLC, 802 F.3d 856, 861–62 (6th Cir. 2015); Bible v. United Student Aid Funds, Inc., 799 F.3d 633, 650 (7th Cir. 2015); *In re* Vehicle Carrier Servs. Antitrust Litig., No. 13-3306, 2015 WL 5095134, at *6 (D.N.J. Aug. 28, 2015)

222. Nat. Res. Def. Council v. EPA, 808 F.3d 556, 569 (2d Cir. 2015).

be reasonable.[223] "Reasonable" signals a harder look than "permissible," the benchmark the *Chevron* court initially applied.[224] This is not the first time the Court has employed such language when applying the *Chevron* test, but it does bolster the proposition that *Chevron* now invites a more searching, rather than deferential, inquiry.[225]

C. Implications for Future Rulemakings

The majority in *Michigan* had ample evidence that the revised MATS rule would consider costs and most likely remanded, rather than invalidated, the rule for this reason. As noted, the rule has been reaffirmed and is in full effect. The regulatory impact analysis EPA issued in 2012 and summarized in the final MATS rule in 2012 included a formal CBA that concluded the monetized benefits of the rule would outweigh its costs by between 3-to-1 and 9-to-1, depending on whether ancillary benefits were included.[226] The *Michigan* Court had access to these cost and benefit figures and discussed them at oral argument.[227] Following the decision, EPA's supplemental proposed finding issued in November 2015 took that data, reorganized it, and explicitly stated that regulating power plants was "appropriate" because the benefits "far exceeded" the costs.[228] EPA's April 2016 reaffirmation of its rule relied on the same analysis.[229] EPA's 2011 proposed rule also included a CBA (later amended) that indicated the rule would be cost-effective.[230]

223. *See* Wyoming v. U.S. Dep't of the Interior, No. 15-041, 2015 WL 5845145, at *9–10 (D. Wyo. Sept. 30, 2015); Conley v. Nw. Fla. State Coll., 145 F. Supp. 3d 1073, 1079–81 (N.D. Fla. 2015); Consumer Fin. Prot. Bureau v. Mortg. Law Grp., LLP, 157 F. Supp. 3d 813, 819–20 (W.D. Wis. 2016).

224. Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 843 (1984).

225. Zuni Pub. Sch. Dist. v. Dep't of Educ., 550 U.S. 81, 89 (2007); *see also* United States v. Mead Corp., 533 U.S. 218, 227 (2001) (observing that regulation meriting *Chevron* treatment "is binding in the courts unless procedurally defective, arbitrary or capricious in substance, or manifestly contrary to the statute"); Mayo Found. for Med. Educ. & Research v. United States, 562 U.S. 44, 53 (2011) (same).

226. Final Rule: National Emission Standards for Hazardous Air Pollutants, 77 Fed. Reg. 9304, 9306 (Feb. 16, 2012).

227. Oral Argument at 63, 84–86, Michigan v. EPA, 135 S. Ct. 2699 (2015).

228. Proposed Supplemental Finding to Regulate Hazardous Air Pollutants, 80 Fed. Reg. 75,025, 75,041 (Dec. 1, 2015).

229. Final Supplemental Finding to Regulate Hazardous Air Pollutants, 81 Fed. Reg. 24,420, 24,445 (Apr. 25, 2016).

230. Proposed Rule: National Emission Standards for Hazardous Air Pollutants, 76 Fed. Reg. 24,976, 24,979 (May 3, 2011).

OIRA review, then, had worked as intended; EPA made sure its rule, when implemented, would maximize social welfare.

The majority in *Michigan* took issue with the fact that EPA conducted this CBA *after* deciding to regulate power plant emissions. As Justice Kagan's dissent noted and regulatory history evinces, EPA frequently conducts a multistage inquiry in which cost considerations come into play during the implementation stage,[231] and the Court has never before found that a regulatory process structured in this way considered costs insufficiently.[232] Further, EPA often cannot accurately assess the costs and benefits of a rule at the threshold determination stage of rulemaking, particularly when the subject matter is as technically complex as power plant emissions. However, these factors should not preclude EPA and other cautious agencies from reorganizing their rulemaking processes to rely in part on informal CBA when determining whether a new rule is warranted or permissible. Like the formal CBA that executive orders have required to be included in proposed rules,[233] pre-regulatory informal CBA figures will likely have to be updated later. Thus, not only will cautious agencies evince a presumption in favor of informal CBA from *Michigan*, but they will also conduct such an inquiry at the outset of the rulemaking process.

The SEC, for example, fundamentally revised its rulemaking procedures after the D.C. Circuit overturned six of its rules in the past decade.[234] In four of these cases, the D.C. Circuit vacated SEC rules because the agency's CBA was inadequate.[235] In *Business*

231. *Michigan*, 135 S. Ct. at 2714–23 (Kagan, J., dissenting) (citing Final Rule: National Emission Standards for Hazardous Air Pollutants for Source Categories: Perchloroethylene Dry Cleaning Facilities, 58 Fed. Reg. 49,354 (Sept. 22, 1993); Final Rule: National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Distribution (Stage I), 59 Fed. Reg. 64,303 (Dec. 14, 1994); Final Rule: National Emission Standards for Hazardous Air Pollutants for Source Categories: Aerospace Manufacturing and Rework Facilities, 60 Fed. Reg. 45,948 (Dec. 1, 1995)).

232. *See* Sunstein, *supra* note 173.

233. *See supra* Section III.C.

234. *See* Ben Protess, *As Wall Street Fights Regulation, It Has Backup on the Bench*, N.Y. TIMES, Sept. 24, 2012, http://dealbook.nytimes.com/2012/09/24/as-wall-street-fights-regulation-it-has-backup-on-the-bench/?_r=0 [https://perma.cc/VG6L-N845]; Eugene Scalia, *Why Dodd-Frank Rules Keep Losing in Court*, WALL ST. J., Oct. 3, 2012, http://www.wsj.com/articles/SB10000872396390444004704578032223012816236 [https://perma.cc/PN93-7R37].

235. *See* Bus. Roundtable v. SEC, 647 F.3d. 1144, 1156 (D.C. Cir. 2011); NetCoalition v. SEC, 615 F.3d 525, 544 (D.C. Cir. 2010); Am. Eq. Inv. Life Ins. Co. v. SEC, 613 F.3d 166, 179 (D.C. Cir. 2010); U.S. Chamber of Commerce v. SEC, 412 F.3d 133, 139 (D.C. Cir. 2005).

Roundtable, for example, the court criticized the SEC for failing to generate data regarding "whether and to what extent [its proxy rule] will take the place of traditional proxy contests."[236] These decisions "are clearly pressing the SEC to make policy decisions in a more scientific manner, based on actual data that, in many cases, it will have to generate and analyze on its own."[237] In reaction to these decisions, the SEC formed the Division of Economic and Risk Analysis in September 2009 "to integrate financial economics and rigorous data analytics into the core mission of the SEC."[238] Unlike the SEC in *Business Roundtable*, however, EPA did generate data regarding the compliance costs of the MATS rule.[239] Because EPA already generates its data independently, the agency does not require a new division to expand on its existing analytic capacity. Rather, in order to withstand judicial scrutiny after *Michigan*, EPA should include informal CBA in its pre-regulatory findings that assess expected compliance costs, unless Congress expressly precludes such considerations. This revision of the rulemaking process pertains more to the *timing* of EPA's analyses and to the agency's interpretation of enabling statutes rather than to the nature of its data generation and analysis.

VI. CONCLUSION

The Supreme Court has long resisted agency use of CBA and has only recently begun to sanction it. However, in *Michigan*, the Court sharply diverged from this body of precedent when it required EPA to consider costs. The majority nominally confined its opinion to an analysis of the statutory phrase "appropriate and necessary" and instructed agencies to merely "consider costs." But because the *Michigan* Court reformulated the *Chevron* test to allow for more searching judicial review and relied on purposivist reasoning regarding the rationality of cost-benefit balancing, cautious agencies should read an implicit mandate to conduct informal CBA into this pro-cost consideration presumption. Further, an agency cannot satisfy this presumption by bifurcating its regulatory process

236. *Bus. Roundtable*, 647 F.3d at 1153.

237. Zarb, *supra* note 220, at 9.

238. *About the Division of Economic and Risk Analysis*, U.S. SEC. & EXCH. COMM'N, http://www.sec.gov/dera/about [https://perma.cc/WQC3-6GKC] (last modified Oct. 17, 2016).

239. *Bus. Roundtable*, 647 F.3d at 1153.

into threshold and implementation phases, but should explicitly balance costs and benefits at the threshold determination when deciding to regulate.