The Evolution of Regulation: Twentieth Century Lessons and Twenty-First Century Opportunities

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> What these rules should be is the principal question in human affairs; but if we except a few of the most obvious cases, it is one of those which least progress has been made in resolving.[1]
>
> John Stuart Mill
> On Liberty, 1859

I. INTRODUCTION AND OVERVIEW

During the second presidential debate of the 2008 election, then candidate Barack Obama opined, with respect to financial markets, that "[t]he problem is we still have a[n] archaic, 20th-century regulatory system for 21st-century . . . markets."[2] While the focus on regulatory reform in financial markets has subsequently been pronounced, an important set of questions remain regarding the applicability of this phrase to other traditionally regulated industries such as telecommunications. In this paper, I explore this issue by focusing on lessons that may be learned from both the evolution of economic analysis and regulatory experiences during the past half-century.

I find, inter alia, that while the trend toward deregulatory policies over the past half-century was nominally motivated by a push toward economic efficiency, policymakers were also attracted to deregulatory policies by deep-seated ideological desires to protect individual freedoms deemed to be infringed by regulation.[3] With the emergence of the 2008 financial crisis in the United States, that simple ideology has receded, giving way to another equally crude ideology that calls for more government regulation and controls.[4] This shift in ideological passions, however, is unlikely to provide proper guidance for any regulatory system that takes seriously the goal of promoting economic welfare.

Aside from ideological predispositions as guideposts for regulatory policy, the question remains whether there is an alternative, fundamentally sound foundation for guiding regulatory and deregulatory policies. In that regard, careful reflection on the evolution of regulation since the early 1960s reveals a subtle but potentially substantive and meritorious basis for calibrating regulatory and deregulatory policymaking in the twenty-first century. In particular, when stripped of the ideological drivers, the most successful dimensions of regulatory and deregulatory policymaking in the

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1. JOHN STUART MILL, ON LIBERTY 7 (David Spitz ed., W. W. Norton & Co. 1975) (1859).

2. *October 7, 2008 Debate Transcript*, COMM'N ON PRESIDENTIAL DEBATES (Oct. 7, 2008), http://www.debates.org/index.php?page=october-7-2008-debate-transcrip.

3. *See, e.g.*, Richard W. Rahn, *Costs Without Benefits*, WASH. TIMES (June 15, 2010), http://www.washingtontimes.com/news/2010/jun/15/costs-without-benefits/.

4. *See, e.g.*, *Over-regulated America*, ECONOMIST (Feb. 18, 2012), http://www.economist.com/node/21547789.

past half-century can be seen as decidedly "results-based."[5] In this paper, I describe and document this set of more subtle regulatory developments and explain how they have provided for the soundest regulatory decisions over the past fifty years. Drawing on these developments, I then propose a set of principles that hold the potential to underlie a new results-based regulatory framework. Results-based regulation ("RBR") draws upon the most successful aspects of both regulatory and economic analysis over the past fifty years with the aim of establishing principles that can guide policymakers as they pursue regulatory and deregulatory policies in the twenty-first century.

The potential for, and the urgency to establish, a twenty-first century results-based regulatory paradigm is significant. And, while the significance of a results-based regulatory framework is relevant to a wide swath of industries, it is particularly important in the case of the telecommunications industry. Specifically, the twentieth century regulatory infrastructure for telecommunications was designed for a monopoly, and while legislative reforms enacted in 1996 embraced competition, the regulatory infrastructure has remained fully entrenched.[6] Even though the regulatory structure has remained intact, the industry has evolved very rapidly, by the confluence of dramatic technological change, the easing of regulatory constraints on entry, and the significant broadening of telecommunications services from voice-only to voice, video, and data.[7] As a result, it is widely believed that with an appropriate twenty-first century policy framework in place, the industry has the potential to significantly and substantively enable economic growth and enhance the quality of virtually all Americans' lives beyond what it has already achieved.[8]

This rapid evolution of the telecommunications industry, together with the infrequent changes to the governing regulatory structure, creates the profound risk of a policy incongruity in which economic welfare is

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5. *See* Phillip K. Howard, *Results-Based Regulation: A Blueprint for Starting Over*, COMMON GOOD (Dec. 2, 2011), http://www.commongood.org/blog/entry/philip-k.-howard-on-the-need-for-results-based-regulation#extended. The approach I outline here shares the same moniker as one proposed by Phillip Howard. A comparison of the principles identified here and those offered by Howard reveals some similarities, but also many distinct dimensions of each. *See* Phillip K. Howard, *Results-Based Regulation: A Blueprint for Starting Over*, COMMON GOOD (Dec. 2, 2011), http://www.commongood.org/blog/entry/philip-k.-howard-on-the-need-for-results-based-regulation#extended.

6. *See* Robert W. Crandall & Jerry A. Hausman, *Competition in U.S. Telecommunications Services: Effects of the 1996 Legislation*, *in* DEREGULATION OF NETWORK INDUSTRIES: WHAT'S NEXT? 73 (Sam Peltzman & Clifford Winston eds., 2000), for a critique of the 1996 Act.

7. *See generally* WORLD ECON. FORUM, THE GLOBAL INFORMATION TECHNOLOGY REPORT 2012: LIVING IN A HYPERCONNECTED WORLD (2012), *available at* http://www3.weforum.org/docs/Global_IT_Report_2012.pdf.

8. *See, e.g.*, FCC, NATIONAL BROADBAND PLAN: CONNECTING AMERICA (2010), *available at* http://www.broadband.gov/plan/ [hereinafter *National Broadband Plan*]; *see also* Sen. John Kerry, *The Future of Telecom is Now*, POLITICO (Feb. 10, 2011, 4:48 AM), http://www.politico.com/news/stories/0211/49177.html.

harmed by inert regulation. In this case, legislative policy reforms are likely to offer the most promising path forward. In an industry as complex as telecommunications, however, legislation is often years in the making.[9] Accordingly, in the short run, economic welfare can be enhanced to the extent that regulators are willing to adopt rigorous analysis steeped in the principles of RBR. A core element of such a regulatory approach is addressing the question of whether proposed, or extant, regulations affirmatively can be shown to benefit economic welfare relative to the alternative of resource allocation that relies more heavily on market-based transactions.

Importantly, the foundation of RBR analysis is not built on speculative theorizing about potential dangers of alternative regulatory governance structures, but rather upon serious empirical analysis that seeks, in counterfactual fashion, to establish how economic metrics of the industry in question compare with those that would prevail in alternative states of the world. In some instances, such counterfactual benchmarks are difficult to come by, but in other often overlooked circumstances, benchmarks may readily arise within the industry over time. To highlight both the promise and challenge of the applicability of this approach, the paper closes with a "proof of concept" examination of the implications of RBR in the provision of modern telecommunications services.

II. BACKGROUND: THE EVOLUTION OF REGULATION

Today, regulatory policy is at an inflection point, complicated by financial market regulatory failures and a backlash against the prevailing ideology that has trended the United States toward less intrusive regulation of industries such as telecommunications, electricity, rail, airlines, and trucking over the past half-century.[10] In the face of these complications, now is an ideal moment to pause and reflect on the basic lessons that can be culled from the practice of regulation and economic science once the clouds of ideology are stripped away. I begin this exercise by reflecting on the simple lessons that emerged from the past half-century of economic regulation.[11]

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9. *See* Lyria Bennett Moses, *Recurring Dilemmas: The Law's Race to Keep Up with Technological Change*, 2007 U. ILL. J.L. TECH. & POL'Y 239 (2007).

10. *See, e.g.*, Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (reregulating parts of the financial industry).

11. This brief review is not meant to be comprehensive, but rather is designed to highlight developments in the practice of regulation that have bearing on the establishment of a regulatory framework that may be apt for the twenty-first century. Such reflections are especially important at times in which multiple voices emerge with alternative and conflicting advice. As noted by Justice Benjamin Cardozo, "[y]ou will study the wisdom of the past, for in a wilderness of conflicting counsels, a trail has there been blazed." Edgar J. Nathan, Jr., *Benjamin Nathan Cardozo*, *in* 41 AM. JEWISH Y.B. 25, 29 (1939).

A. The Rise of the Regulation

There is a continuum of alternative governance mechanisms for allocating society's scarce resources.[12] These mechanisms may be extreme forms of fiat imposed by authoritarian rule, rely on free markets, or involve combinations of both market-based and rule-based governance mechanism.[13]

From the outset of the Republic, the United States' economy has been market-oriented.[14] This affinity with market-based, rather than governmentally-imposed, decision making is deeply rooted in both a political philosophy that treasures individual freedom and compelling economic theory dating back to famed economist Adam Smith, who opined on the general superiority of market-based resource allocation.[15] Against this backdrop, regulation of "public utilities" first arose during the 1800s in the form of municipal regulation and evolved into state and federal regulation during the twentieth century.[16] This rise of a regulatory superstructure at the state and federal levels supplanted the more traditional reliance on private litigation as the mechanism for ensuring and promoting trade between economic entities.[17]

In their analysis of the rise of the regulatory state, Glaeser and Schleifer develop a model in which the merits of a deeper reliance on private litigation, rather than regulation, rely upon the underlying strengths of the legal institutions, which in turn are vital to ensuring the integrity of the litigation process.[18] They demonstrate that, in general, the stronger legal institutions are, the more society may efficiently rely upon litigation rather than regulation as its governance mechanism.[19] Their review of both private litigation and regulation in the United States in the years preceding the onset of the twentieth century "regulatory state" points toward the vulnerability of the legal foundations of litigation as a governance

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12. Geoff Riley, *Government Intervention in the Market*, ECOUNLOCK, http://ecounlock.blogspot.com/p/government-intervention-in-market.html (last visited Jan. 13, 2013).

13. Robert Litan, *Regulation*, CONCISE ENCYCLOPEDIA OF ECON., http://www.econlib.org/library/Enc/Regulation.html (last updated Dec., 2007).

14. *See* TENCH COXE, A VIEW OF THE UNITED STATES OF AMERICA 429 (1794).

15. *See generally* ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS (Simon & Brown 2011) (1776). As recently observed by President Obama, "[f]or two centuries, America's free market has not only been the source of dazzling ideas and path-breaking products, it has also been the greatest force for prosperity the world has ever known." Barack Obama, Op-Ed., *Toward a 21st-Century Regulatory System*, WALL ST. J., Jan. 18, 2011, http://online.wsj.com/article/SB10001424052748703396604576088272112103698.html.

16. George L. Priest, *The Origins of Utility Regulation and the "Theories of Regulation" Debate*, 36 J.L. & ECON. 289, 296, 301 (1993).

17. *See* Edward L. Glaeser & Andrei Shleifer, *The Rise of the Regulatory State*, 41 J. ECON. LITERATURE 401, 401-08 (2003).

18. *See id.* at 413-14, 422.

19. *See id.*

mechanism during this period.[20] Thus, they see the rise of the regulatory state as an efficient response to the state of legal institutions during the late nineteenth century.[21] An important implication of Glaeser and Schleifer's interpretation of the rise of regulation is that governance structures that arise efficiently in one period may be overtaken by the efficacy of alternative structures in a different period.[22] For example, as competition policy and consumer protection agencies arose and matured in the course of the twentieth century, the relative merits of full-blown regulatory superstructures may reasonably be thought to fade relative to private litigation.[23]

B. Stability of the Early Years

Between the 1880s, with its introduction of federal railroad regulation, and the beginning of WWII, a number of federal regulatory agencies were created to regulate the transportation, telecommunications, financial, and energy industries.[24] What emerged during this period was a remarkably stable set of regulatory institutions and industries.

For example, following the creation of the Civil Aeronautical Board in 1938, regulators quickly established comprehensive regulation of the airline industry.[25] The regulatory regime controlled virtually every economic dimension of air service including the entry of air carriers, authorization for service over specific routes, the ability to withdraw from specific routes, and rates.[26] Once these regulations were in place,

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20. *See id.* at 413-15.

21. *See id.* at 413.

22. *See id.* at 401 (explaining that the subversion theory of law enforcement leads to "predictions as to what institutions [or regulations] are appropriate under what circumstances").

23. *See generally* Howard A. Shelanski, *Adjusting Regulation to Competition: Toward a New Model for U.S. Telecommunications Policy*, 24 YALE J. ON REG. 55 (2007) (providing supporting discussion of this point, specifically directed toward the telecommunications industry). Of course, this conclusion rests on both the ability and propensity of courts and regulatory agencies to enforce existing laws, rules, and regulations..

24. *See, e.g.*, Glaeser & Shleifer, *supra* note 17, at 407-08 (stating that the Interstate Commerce Commission was created to regulate railroad transportation in 1887, the Federal Reserve was created to regulate the financial industry in 1913, and the Securities and Exchange Commission was created to regulate the financial industry in 1934); *What We Do*, FCC, http://www.fcc.gov/what-we-do (last visited Nov. 1, 2012) (explaining that the FCC was created in 1934 to regulate the telecommunications industry); *History of the FERC*, FERC, http://www.ferc.gov/students/ferc/history.asp (lasted visited Nov. 1, 2012) (stating that the Federal Power Commission, the predecessor to the Federal Energy Regulatory Commission, was created in 1920 to regulate the energy industry).

25. Michael E. Levine, Comment, *Is Regulation Necessary? California Air Transportation and National Regulatory Policy*, 74 YALE L.J. 1416, 1416 (1965).

26. *See id.* at 1420 ("The 'economic' aspects of air transportation (*e.g.*, rates, routes, and market structure) are within the jurisdiction of the Civil Aeronautics Board, which was established by the 1938 Act . . . .").

considerable inertia overtook the industry with very few changes to the regulatory structure occurring over a period of roughly four decades.[27]

Similarly, in the years following the passage of the Communications Act of 1934, regulators created both a labyrinth of rules and regulations, and a stable monopoly.[28] During this period, payments between the various legal entities comprising AT&T were mandated under an arcane regulatory system known as "Separations and Settlements."[29] Specifically, regulators required the firm to split the costs of providing local and long-distance services.[30] This system required uneconomic allocation of the costs to the long-distance sector that were actually associated with creating network access.[31] Prices were then established to recover these costs, which led to artificially high long-distance rates.[32] Long-distance revenues were then transferred as "Settlements" back to the local exchange operations of AT&T's Bell operating companies as well as non-Bell local operating companies.[33] At both the state and federal levels, regulators seemed content with a monopoly structure and governance mechanism that regulated both local exchange companies and long-distance services as natural monopolies under rate-of-return regulation.[34] Noam notes that the policy framework of telecommunication regulation in between the 1930s and 1960s was

> the traditional monopoly system, state owned, or tightly regulated. Technologically it was based on copper analog networks. Culturally it was shaped by an engineering and state bureaucracy. This arrangement lasted for a century and spawned a regulatory system, which focused on cooperation with the monopolist provider in spreading services across society, while constraining its market power.[35]

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27. Severin Borenstein & Nancy L. Rose, *How Airline Markets Work . . . Or Do They? Regulatory Reform in the Airline Industry* 1-2 (Nat'l Bureau of Econ. Research, Working Paper No. 13452, 2007), *available at* http://www.nber.org/papers/w13452.

28. *See* Crandall & Hausman, *supra* note 6, at 73 ("For more than fifty years the U.S. telecommunications sector was a regulated private monopoly . . . . During most of that period the Federal Communications Commission (FCC) and a variety of state authorities controlled . . . prices . . . and restricted entry.").

29. David L. Kaserman, John W. Mayo & Joseph E. Flynn, *Cross-Subsidization in Telecommunications: Beyond the Universal Service Fairy Tale*, 2 J. REG. ECON. 231, 233 (1990).

30. *Id.* at 233-34.

31. *Id.*

32. *Id.* at 233.

33. *Id.* at 233-34.

34. *See generally* GERALD R. FAULHABER, TELECOMMUNICATIONS IN TURMOIL: TECHNOLOGY AND PUBLIC POLICY (1987); Gerald W. Brock, *Historical Overview*, *in* 1 HANDBOOK OF TELECOMMUNICATIONS ECONOMICS: STRUCTURE, REGULATION AND COMPETITION (Martin E. Cave, Sumit K. Majumdar & Ingo Vogelsang eds., 2002) (providing detailed discussions of the history of the early telecommunications era).

35. Eli M. Noam, *Regulation 3.0 for Telecom 3.0*, 34 TELECOMM. POL'Y 4, 5 (2010).

C. Ideological and Intellectual Underpinnings of Deregulation

While the causes of economic processes as broad and complex as the deregulation movement that have occurred over the past fifty years are manifold,[36] careful reflection reveals two precipitating features worth highlighting. First, beginning in the 1960s, economists began to look upon the institution of regulation with newfound skepticism.[37] This skeptical inquiry revealed that regulation was an imperfect governance mechanism that could not be assumed to promote the public interest. A second, more subtle but potentially more profound driver came from policymakers who saw deregulation as a means to promote an ideological end, specifically to ease governmental coercion and promote economic freedoms. I take these up in turn.

Economic analysis of regulation in the twentieth century began with two seemingly innocuous assumptions. First, regulators were assumed to unwaveringly pursue the public interest in the conduct of their affairs.[38] Second, regulatory rules were inviolate.[39] Together, these assumptions resulted in the development of a number of fundamental insights that lie at the heart of regulatory economics today.[40] The assumptions also created an implication, which came to serve as a readily accepted feature of the practice of regulation, that the economic effects of regulation would uniformly promote economic welfare.[41]

It was against this backdrop that Stigler and Friedland took on the issue of the economic impact of regulatory governance, something that economists and policymakers had previously overlooked.[42] The authors introduce the subject simply and powerfully:

> The literature of public regulation is so vast that it must touch on everything, but it touches seldom and lightly on the

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36. There are a number of thoughtful pieces that have reflected on other features of the deregulatory process. *See, e.g.*, Sam Peltzman, *The Economic Theory of Regulation After a Decade of Deregulation*, in BROOKINGS PAPERS ON ECONOMIC ACTIVITY, MICROECONOMICS 1, 1-3 (1989) (describing the economic theory in the political market as a cause of the deregulation movement); ROGER G. NOLL & BRUCE M. OWEN, THE POLITICAL ECONOMY OF DEREGULATION: INTEREST GROUPS IN THE REGULATORY PROCESS 5-6 (1983) (exploring the political economy of deregulation by focusing on the history of the regulations themselves and interest groups that have had a hand in their creation).

37. *See generally* Edward Glaeser, Simon Johnson & Andrei Shleifer, *Coase Versus the Coasians*, 116 Q. J. ECON. 853 (2001).

38. *See* Paul L. Joskow, *Regulation and Deregulation After 25 Years: Lessons Learned for Research in Industrial Organization*, 26 REV. INDUS. ORG. 169, 182 (2005).

39. *See* George J. Stigler & Claire Friedland, *What Can Regulators Regulate? The Case of Electricity*, 5 J.L. & ECON. 1, 1 (1962).

40. *See* Harvey Averch & Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052, 1062-63 (1962).

41. *See* Stigler & Friedland, *supra* note 39.

42. *See generally id.* (exploring how regulations affect telecommunications economies).

> most basic question one can ask about regulation: Does it make a difference in the behavior of an industry?
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> This impertinent question will strike anyone connected with a regulated industry as palpably trivial. Are not important prices regulated? Are not the routes of a trucker and an airline prescribed? Is not entry into public utility industries limited? Is not an endless procession of administrative proceedings aging entrepreneurs and enriching lawyers?
>
> But the innumerable regulatory actions are conclusive proof, not of effective regulation, but of the desire to regulate.[43]

The seminal work of Stigler and Friedland subsequently gave rise to a general economic theory of regulation developed by Stigler, Peltzman, Posner, and Becker.[44] This economic theory sought to recast regulation not as a governance structure that invariably promoted the public interest, but rather as a good that was subject to the standard forces of supply and demand.[45] The result was, in its crudest form, that "as a rule, regulation is acquired by industry and is designed and operated primarily for its benefit."[46] As the principal architects of this economic theory were from the University of Chicago, it was quickly associated with what came to be known as "the Chicago School of thought."[47]

This view of regulation has provided a powerful general model for understanding regulatory outcomes, and has led to a fundamental shift in the research agenda directed toward regulation.[48] Specifically, in the decades that have followed the emergence of the economic theory of regulation, research has increasingly focused on the important role of interest groups in influencing regulatory outcomes.[49] While providing a general theoretical framework for understanding regulatory outcomes, the approach has created byproducts that unfortunately mask an opportunity as we look to the future of regulation. The framework highlights the general

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43. *Id.* at 1.

44. *See* Peltzman, *supra* note 36, at 1 (discussing the evolution of the economic theory of regulation). For an enunciation of this theory in graphical format, see generally T. Randolph Beard, David L. Kaserman & John W. Mayo, *A Graphical Exposition of the Economic Theory of Regulation*, 41 ECON. INQUIRY 592 (2003).

45. *See* DAVID L. KASERMAN & JOHN W. MAYO, GOVERNMENT AND BUSINESS: THE ECONOMICS OF ANTITRUST AND REGULATION 519 (1995).

46. *See* George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3, 3 (1971).

47. *See Chicago School*, *in* 2 GALE ENCYCLOPEDIA OF AMERICAN LAW 353, 353 (Donna Batten ed., 3d ed. 2010).

48. H. Laurence Miller, Jr., *On the "Chicago School of Economics,"* 70 J. POL. ECON. 64, 65 (1962).

49. *See, e.g.*, Noll & Owen, *supra* note 36, at 26-27; David L. Kaserman, John W. Mayo & Patricia L. Pacey, *The Political Economy of Deregulation: The Case of Interstate Long Distance*, 5 J. REG. ECON. 49, 51 (1993).

conclusion that regulatory outcomes are often the result of a competition among political interest groups.[50] This view of the regulatory process, while certainly true and amply demonstrated, served to focus attention on the political determinants of regulation rather than on its efficiency consequences.[51] Yet quite apart from the political decision-making features of regulation, regulatory outcomes have efficiency consequences and, as seen below, evaluation of these consequences may provide influential input to decision-makers.[52]

Additionally, the Chicago School's approach to regulation, while providing healthy skepticism, made it ripe to be co-opted by those who opposed regulation purely on ideological grounds.[53] The resulting conflation of legitimate academic scrutiny of the economic merits of an imperfect regulatory mechanism with arguments by those who philosophically opposed *any* regulation too easily permitted some to point to the "opposition" to regulation by leading scholars as grounds for deregulation.[54] This unfortunate development too often led to shortcuts in the regulatory and deregulatory decision-making process, permitting policymakers to support deregulatory policies based on the observed imperfections in regulation and the fact that the process for regulatory decision-making is in part determined by the strengths of political interest groups.[55]

While economists have focused the preponderance of their attention on public interest group explanations of the evolution of deregulation, other more general drivers have also been at work in the deregulation process over the past decades. Indeed, a second underlying driver of the

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50. *See* KASERMAN & MAYO, *supra* note 45, at 529.

51. Paul L. Joskow & Roger C. Noll, *Regulation in Theory and Practice: An Overview*, *in* STUDIES IN PUBLIC REGULATION 1, 36 (Gary Fromm ed., 1981). Apart from the Economic Theory of Regulation, another path of regulatory economics opened during this period and began to focus on regulation within the context of the principal-agent framework. In this context, the focus has been on the development of "optimal" regulatory regimes. *See* Mark Armstrong & David E. M. Sappington, *Recent Developments in the Theory of Regulation*, *in* 3 HANDBOOK OF INDUSTRIAL ORGANIZATION 1557, 1561 (Mark Armstrong & Robert Porter eds., 2007). Regardless of the theoretical progress, the practical importance of this literature for regulatory policymaking has been limited. *See* Jeffrey T. Macher, John W. Mayo & Jack A. Nickerson, *Regulator Heterogeneity and Endogenous Efforts to Close the Information Asymmetry Gap*, 54 J.L. & ECON. 25, 26 (2011).

52. Joskow & Noll, *supra* note 51, at 8-9. While the economic theory of regulation has provoked a focus on interest group strengths, the founders of the theory have themselves recognized the potentially important role of differences in observed economic efficiencies as a stimulant to changes in regulatory outcomes. *Id.* at 39. For example, in his reflection on the deregulatory process, Peltzman has observed that deregulation is "more likely to occur if regulation itself has generated inefficiencies, so that shedding the inefficiency through deregulation provides a potential source of benefits." *See* Peltzman, *supra* note 36, at 35.

53. *See* Clifford Winston, *Economic Deregulation: Days of Reckoning for Microeconomists*, 31 J. ECON. LITERATURE 1263, 1263 (1993).

54. *See* KASERMAN & MAYO, *supra* note 45, at 549.

55. *Id.* at 548-49.

deregulation movement stems not from intellectual skepticism of regulation as a governance mechanism but rather from an ideological critique of regulation as a fundamentally coercive institution that serves as an impediment to "freedom."[56] This critique and its implications for policy are, of course, not new.[57] As noted by John Stuart Mill in his famous treatise *On Liberty*, "the [debate over the] nature and limits of the power which can be legitimately exercised by society over the individual . . . is so far from being new, that, in a certain sense, it has divided mankind, almost from the remotest ages."[58] And while the issue of the degree to which society may properly impose governance over freedoms is "[a] question seldom stated, and hardly ever discussed, . . . [it] profoundly influences the practical controversies of the age by its latent presence."[59] Thus, while not a central part of the explicit oratory regarding the desire to move toward a more market-oriented, deregulatory environment, the subtle sway of the ideological pendulum toward less governmentally coercive regulation over the past fifty years can be seen, at least with the benefit of hindsight, to have been a powerful driver of the deregulatory process.

For example, consider the political science research of swings in public opinion and policy formation. Stimson has created a multi-dimensional index of the "mood" of the American people toward government.[60] Stimson's Mood Index is an indicator of aggregate U.S. public opinion over time.[61] Specifically, the index is constructed using the results of survey research on public opinion over many decades. The underlying data in the index comes from over 200 questions gauging the mood of Americans on specific policy areas over numerous time periods.[62] Using a factor analysis, Stimson discovered that a prominent underlying dimension to U.S. public opinion exists, which can be described simply as a "more government, less government" dimension.[63] The dimension is scaled between 0 and 100, with higher values indicating a shift in public

56. James Gwartney & Robert Lawson, *The Concept and Measurement of Economic Freedom*, 19 EUR. J. POL. ECON. 405, 407 (2003).

57. *See* MILL, *supra* note 1.

58. *Id.* at 3.

59. *Id.*

60. JAMES A. STIMSON, PUBLIC OPINION IN AMERICA: MOODS, CYCLES, AND SWINGS xvii, 20 (2d ed. 1999) [hereinafter STIMSON, PUBLIC OPINION IN AMERICA]; *see generally* JAMES A. STIMSON, TIDES OF CONSENT: HOW PUBLIC OPINION SHAPES AMERICAN POLITICS 1-172 (2004) [hereinafter STIMSON, TIDES OF CONSENT] (provides further analysis of Stimson's studies regarding mood).

61. *See* STIMSON, PUBLIC OPINION IN AMERICA, *supra* note 60; STIMSON, TIDES OF CONSENT, *supra* note 60.

62. *See* STIMSON, PUBLIC OPINION IN AMERICA, *supra* note 60, at 143-49; STIMSON, TIDES OF CONSENT, *supra* note 60; E-mail from Mathew Hatfield, Member, Fed. Commc'n Law Journal to James A. Stimson, Raymond Dawson Professor of Political Science, Univ. N.C. Chapel Hill (Nov. 5, 2012) (on file with the Federal Communications Law Journal).

63. STIMSON, PUBLIC OPINION IN AMERICA, *supra* note 60, at 91; STIMSON, TIDES OF CONSENT, *supra* note 60, at 8; E-mail from Mathew Hatfield to James A. Stimson, *supra* note 62.

opinion in favor of greater government involvement in the affairs of private citizens and businesses.[64]

Stimson's Mood Index of the American people is displayed in Figure 1.[65] Also shown in Figure 1 are major deregulatory events of the past fifty years.[66] As seen in Figure 1, policymakers have typically chosen moments for deregulatory events when the sentiments ("mood") of the American people are more sympathetic to the freedoms of individuals and less sympathetic to an active role for government. For example, airline, railroad, and interstate trucking deregulation all occurred during the 1978-1980 period in which the ideological Mood Index was at historically low levels. Similarly, both intrastate trucking and long-distance telecommunications deregulation occurred in 1994, another low point on the Mood Index.

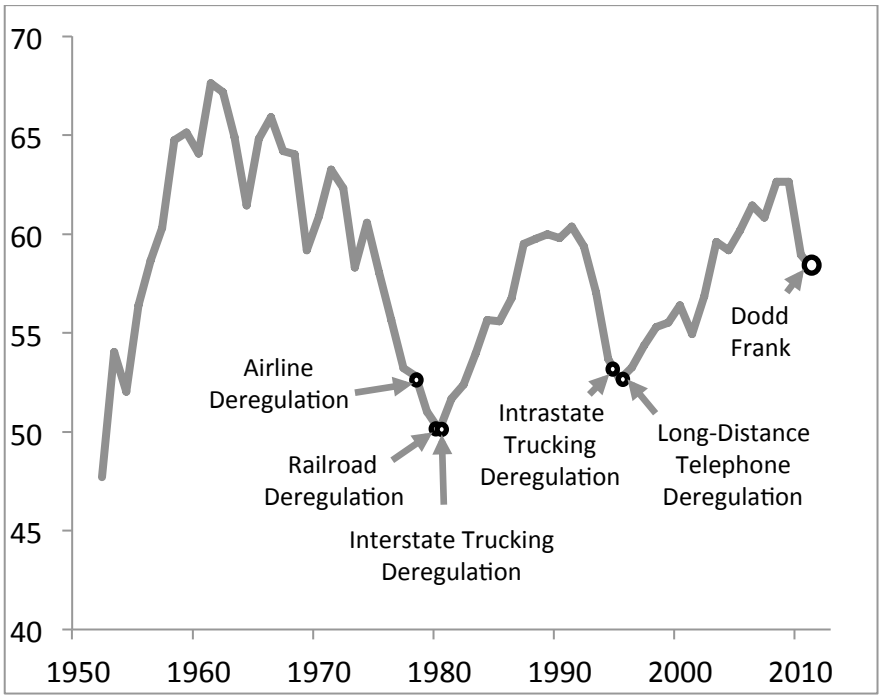

Figure 1: The Ideological Mood of the American People and the Deregulation Movement[67]

64. E-mail from Mathew Hatfield to James A. Stimson, *supra* note 62.

65. K. Elizabeth Coggins, *Policy Mood*, UNIV. N.C., http://www.unc.edu/~cogginse/Policy_Mood.html (last visited Jan. 14, 2013) (displaying graph of Stimson's Policy Mood).

66. *See* Airline Deregulation Act of 1978, 49 U.S.C § 1301 (1978); U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-90-80, ECONOMIC AND FINANCIAL IMPACTS OF THE STAGGERS RAIL ACT OF 1980 2 (1990) [hereinafter GAO STUDY ON IMPACTS OF THE STAGGERS RAIL ACT]; U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-87-107, PROPOSED SUNSET OF ICC'S TRUCKING REGULATORY RESPONSIBILITIES 2 (1987) [hereinafter GAO STUDY ON TRUCKING REGULATORY RESPONSIBILITIES]; Thomas G. Kattenmaker, *The Telecommunications Act of 1996*, 49 FED. COMM. L.J. 1, 16 (1996).

67. *See* Airline Deregulation Act of 1978 § 1301; Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010); GAO STUDY ON

While both the Chicago School critique of regulation and the movements in the ideological mood of the American people have proven to be important drivers of the swings in the regulation-deregulation process that has unfolded over the past half-century, neither provides a reliable foundation for establishing a twenty-first century regulatory-deregulatory policy framework. Indeed, while each of these factors may inform the development of a twenty-first century regulatory policy framework, adoption of either without critical analysis creates the profound risk of regulatory policy failures.

Consider first the lessons from the Chicago School critique, which observes that regulation is an imperfect governance institution.[68] Adopted uncritically, this observation has led some to cast aspersions on *any* regulatory governance.[69] The fact is, however, that while regulation is an imperfect governance mechanism, there are levels of market failure that certainly can and do give rise to the merits of regulatory oversight of markets. Thus, while identifying an important consideration for future regulatory policy development, the Chicago School observation of imperfections in regulation cannot by itself reasonably be thought to provide the foundation for a twenty-first century regulatory policy.

Indeed, to solely use the Chicago School of thought to frame modern regulatory policy would be an ironic twist to a standard critique of the public interest theory of regulation. That critique stems from Joskow and Noll, who point out that the champions of the public interest theory of regulation often unduly extrapolate what is essentially a normative theory of (optimal) regulation by converting it into a positive theory of regulation.[70] Critiques of this "Normative Theory as Positive Analysis" interpretation of the public interest theory have been strident.[71] However, note that any attempt to employ the essentially positive economic theory of regulation proffered by the Chicago School as a normative guide to policy development suffers from the same confounding of normative and positive theories; yet in this case, the error would be in adopting an essentially positive theory as a guide for normative policymaking.

Next, consider the role of ideological swings as a guide to regulatory policymaking. While any democracy can point toward the attractiveness of acceding to "the will of the people," a careful reflection indicates that high-level ideological swings are likely to provide a particularly poor foundation for twenty-first century regulatory-deregulatory policymaking of specific

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IMPACTS OF THE STAGGERS RAIL ACT, *supra* note 66; GAO STUDY ON TRUCKING REGULATORY RESPONSIBILITIES, *supra* note 66; Kattenmaker, *supra* note 66; Coggins, *supra* note 65.

68. *See* Miller, *supra* note 48, at 65-67.

69. *Id.*

70. Joskow & Noll, *supra* note 51, at 35-40.

71. *See* Winston, *supra* note 53, at 1266-69.

industries. Indeed, the perils of this approach to policy development were anticipated over 150 years ago by John Stuart Mill:

> There is, in fact, no recognized principle by which the propriety or impropriety of government interference is customarily tested. People decide according to their personal preferences. Some, whenever they see any good to be done, or evil to be remedied, would willingly instigate the government to undertake the business; while others prefer to bear almost any amount of social evil, rather than add one to the departments of human interests amenable to governmental control. And men range themselves on one or the other side in any particular case, according to this general direction of their sentiments; or according to the degree of interest which they feel in the particular thing which it is proposed that the government should do; or according to the belief they entertain that the government would, or would not, do it in the manner they prefer; but very rarely on account of any opinion to which they consistently adhere, as to what things are fit to be done by a government. And it seems to me that, in consequence of this absence of rule or principle, one side is at present as often wrong as the other; the interference of government is, with about equal frequency, improperly invoked and improperly condemned.[72]

Thus, the ideological swings over the past fifty years—initially toward less governmental involvement in business affairs and more recently toward more governmental involvement[73]—fail to provide a strong foundation for a twenty-first century regulatory-deregulatory policy framework.

Beyond the problem identified by Mill, two additional fundamental shortfalls surface with ideologically-led policymaking. First, such high-level swings in ideology fail to discriminate between industries in which market-based resource allocations are enhancing economic welfare and those that are harming economic welfare. Second, to the extent that the general movement in some industries, such as telecommunications, toward less regulation over the past decades can be cast as a product solely of a political agenda driven by the ideology of the right,[74] the reaction from the ideological left may be a simple call for reversing the regulatory changes, independent of a serious examination of the marketplace consequences of those policy changes.

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72. *See* MILL, *supra* note 1, at 12-13.

73. *See supra* Figure 1.

74. *See e.g.*, Timothy Karr, *Speaker Boehner's Space Odyssey*, HUFFINGTON POST, Mar. 1, 2011, http://www.huffingtonpost.com/timothy-karr/net-neutrality-under-new-_b_829612.html.

D. The Inklings and Promise of Results-Based Regulation

To this point, we have seen that two of the principal drivers of regulatory and deregulatory policies over the past fifty years fail to provide a sound foundation for twenty-first century regulatory policymaking. A third, subtle feature of the evolution of regulatory policies, however, holds significantly more promise as a basis for twenty-first century regulatory and deregulatory policymaking. In particular, it was during this period that regulators, perhaps motivated by the growing skepticism of regulatory institutions that arose from the Chicago School, began to employ rigorous empirical, counterfactual analysis that examined the results of natural experiments in the market to guide regulatory and deregulatory policies.[75] I refer to this methodology as Results-Based Regulation ("RBR").

The origins of RBR may be traced to a 1965 article in the *Yale Law Journal* in which Michael Levine undertook a serious critique of regulation in the U.S. airline industry.[76] In the face of decades of stable and seemingly uncontroversial regulation of the airline industry, he audaciously concluded, "[t]he performance of the largest air transportation market in the world provides convincing evidence that fares are much lower and service more responsive to public needs where restrictions on entry are absent and control over fares is rarely exercised."[77] What was remarkable, however, was not his conclusion that regulations in the airline industry should be eased, but rather the manner in which he came to this conclusion.[78] Specifically, his conclusion came not from an ideological consideration of the merits of deregulatory policies, but rather from practical considerations drawn from empirical scrutiny of airline markets that offered a natural experiment in which some routes (viz., interstate airline service) were extensively rate-regulated while the largest single city-pair market in the United States (between Los Angeles and San Francisco), was exempt from federal regulatory controls.[79] His empirical analysis led to the conclusion that regulation had the practical consequence of raising rates and harming economic welfare.[80] For instance, he found that the lowest airfare available on the regulated Washington-Boston route was over 215% higher than the prices paid by consumers flying in on the deregulated Los Angeles to San Francisco route.[81] Subsequent to Levine's analysis, a number of students of the industry began to see the policy move to relax price controls in the

75. *See* Miller, *supra* note 48, at 65 (noting an emphasis on "hypothesis-testing" in the Chicago School).
76. *See* Levine, *supra* note 25.
77. *Id.* at 1416-17.
78. *See id.*
79. *See id.*
80. *Id.* at 1441.
81. *Id.*

industry as meritorious, the ultimate result of which was the federal deregulation of airfares in 1978.[82]

Another example of the emergence of RBR occurred between the mid-1980s and mid-1990s. Specifically, in 1984, AT&T was divested as a result of an antitrust consent decree between the company and the Department of Justice ("DOJ").[83] That divestiture separated the control of long-distance telecommunications, which remained under the control of AT&T, from local exchange telephone service, that was spun off to the Regional Bell Operating companies.[84] With that divestiture, AT&T lost any control over the local exchange facilities that were the source of its pre-divestiture monopoly power.[85] Simply because of regulatory inertia, however, AT&T remained regulated as a full public utility under rate-of-return regulation at both the state and federal levels.[86] In the years following the divestiture, and with the emergence of numerous competitors in the market for long-distance services, individual states began to deregulate the pricing of long-distance services.[87] Nonetheless, AT&T was still fully regulated at the federal level. The emergence of different regulatory structures at the state level provided a natural opportunity for RBR analysis.[88]

Mathios and Rogers offered the first study to analyze the effects of cross-state differences in long-distance governance mechanisms.[89] Drawing on data from across the states, they created an econometric model of the prices of intrastate long distances services.[90] In the model, they included a variety of demand-side and supply-side determinants of prices along with variables representing the presence of relaxed intrastate regulation of

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82. *See* Stephen Breyer, *Analyzing Regulatory Failure: Mismatches, Less Restrictive Alternatives, and Reform*, 92 HARV. L. REV. 547 (1979); Joskow, *supra* note 38, at 169-93.

83. United States v. Am. Tel. & Tel. Co., 552 F. Supp. 131, 141 (D.D.C. 1982), *aff'd sub nom.*, Maryland v. United States, 460 U.S. 1001 (1983).

84. *Id.* at 200-08.

85. *Id.* at 172.

86. Robert Kaestner & Brenda Kahn, *The Effects of Regulation and Competition on the Price of AT&T Intrastate Telephone Service*, 2 J. REG. ECON. 363, 364 (1990).

87. *Id.*

88. The opportunities for insights based on variations in the effects of state policies dates back at least to 1936, when Justice Brandeis noted that:

> There must be power in the States . . . to remould, through experimentation, our economic practices and institutions to meet changing social and economic needs. . . . It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.

New Ice Co. v. Liebmann, 285 U.S. 262, 311 (1936) (Brandeis, J., dissenting).

89. Alan D. Mathios & Robert P. Rogers, *The Impact of Alternative Forms of State Regulation of AT&T on Direct-Dial, Long-Distance Telephone Rates*, 20 RAND J. ECON. 437, 437 (1989).

90. *Id.* at 437-38.

pricing.[91] They found that after accounting for other determinants of intra-state long-distance prices, states that granted AT&T pricing flexibility enjoyed significantly lower prices than those states that retained full regulatory controls over pricing.[92] The empirical results found that "the price of a five minute call, on average, is 7.2 percent lower in states that have allowed pricing flexibility."[93] Other studies soon followed that consistently found that deregulation of the long-distance industry led to lower prices.[94] These empirical results, together with the general positive results of economic metrics in the long-distance sector ultimately provided comfort for the FCC in its decision to deregulate pricing in the interstate long-distance market.[95]

Another dimension of RBR that has emerged over the past half-century is the rigorous use of "before-and-after" methods for assessing the merits of changes in regulatory policies.[96] Prominent among these was the examination of the economic impacts of the deregulation of the interstate and intrastate trucking industries. For instance, Blair, Kaserman, and McClave examined the effects of the sudden deregulation of intrastate trucking in Florida, which occurred on July 1, 1980.[97] While theoretical considerations suggested that comprehensive regulation of pricing, entry, and terms of service for intrastate trucking was actually elevating rates relative to a deregulated environment, the authors treated the ultimate effectiveness of either regulation or deregulation in this market as an empirical question.[98] Consequently, the authors developed a comprehensive model of the pricing per ton mile for intrastate trucking services, which they used to examine price and other market conditions both before and after deregulation.[99] Their results revealed that prices fell in the wake of the deregulation of intrastate trucking.[100] Moreover, by rigorously accounting for changes in market conditions over the period in question, they were

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91. *See id.* at 440-45.

92. *Id.* at 447-50.

93. *Id.* at 447.

94. *See, e.g.*, Kaestner & Kahn, *supra* note 86, at 363, 371; Simran K. Kahai, David L. Kaserman & John W. Mayo, *Is the 'Dominant Firm' Dominant? An Empirical Analysis of AT&T's Market Power*, 39 J.L. & ECON. 499, 512-13 (1996) (concluding that AT&T possessed very little market power compared to other firms in the U.S. economy). For a complete review of these studies and the divestiture, see generally David L. Kaserman & John W. Mayo, *Competition in the Long Distance Market*, *in* HANDBOOK OF TELECOMMUNICATIONS ECONOMICS (Martin E. Cave, Sumit K. Majumdar & Ingo Vogelsang eds., 2002).

95. *See* Motion of AT&T Corp. to Be Reclassified as a Non-Dominant Carrier, *Order*, FCC 95-427, 11 FCC Rcd. 3271, paras. 67-72 (1995).

96. *See, e.g.*, Joskow, *supra* note 38, at 185-87 (discussing the predictions of the effects of airline deregulation and studies analyzing whether these predictions were correct).

97. Roger D. Blair, David L. Kaserman & James T. McClave, *Motor Carrier Deregulation: The Florida Experiment*, 68 REV. ECON. & STAT. 159, 159-60 (1986).

98. *Id.* at 160.

99. *Id.* at 160-61.

100. *Id.* at 162.

able to isolate the effects of the change in market governance from regulation to deregulation, determining that "the deregulation of intrastate trucking in Florida led to a 14.62% average reduction in motor carrier rates."[101]

Earlier, we saw that simple Chicago School critiques of regulation, or ideologically driven appeals to the deregulation process, fail to provide sound footing for guiding regulatory policymaking in the twenty-first century. In this section, I have described the more subtle emergence of RBR methods that rely upon detailed empirical analysis of counterfactual alternative governance mechanisms as guideposts for regulatory and deregulatory policymaking. Such methods have arguably provided the most successful vehicle to date for determining when policy should move more toward regulatory, or more toward deregulatory market governance mechanisms. In the next section, I will describe a principles-based framework that demonstrates how RBR analysis could provide a foundation for smart twenty-first century regulatory policymaking.

III. RESULTS-BASED REGULATION: A NEW FRAMEWORK FOR TWENTY-FIRST CENTURY POLICYMAKING

Both economic analysis and the practice of regulatory policy over the past fifty years reveals that there are industries in which economic welfare may be improved by altering the level of government regulation, either toward a market-oriented or a more government-oriented approach.[102] The challenge is discerning which industries and sectors are ripe for moves toward a less intrusive set of regulations and which ones need more regulatory oversight. In this regard, a policy goal of the present administration is "to root out regulations that conflict, that are not worth the cost, or are just plain dumb."[103] So the question naturally arises: how can we tell if a set of regulatory constraints are "just plain dumb"?[104]

Unfortunately, the answer to this question has all too often been framed either by simple ideologies (all government regulations are "dumb" as they interfere with freedom of commerce), or have been determined by the strengths of opposing interest groups that economically gain or lose as a consequence of the existing or proposed regulatory regime. As seen in the previous section however, the unheralded emergence of serious, empirical counterfactual analysis of alternative regulatory governance structures has shown itself to provide a promising policy mechanism for discriminating industries in which market-based governance mechanisms are better able to promote economic welfare.

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101. *Id.*
102. *See* KASERMAN & MAYO, *supra* note 45.
103. Obama, *supra* note 15.
104. *See id.*

These encouraging developments provide a basis for establishing a new twenty-first century regulatory decision-making framework. Specifically, a results-based regulatory framework would embody a set of governing principles drawn from the lessons of economic analysis and the practice of regulation as they have unfolded over the past fifty years.

A. ***Principle 1:*** *All market governance mechanisms for resource allocation are, in practice, imperfect.*

While seemingly obvious, the implications of adhering to, or ignoring, this principle are potentially profound for the evolution of regulatory policy in the twenty-first century. All too often, a perfectly competitive market structure is held as a standard against which to judge the merits of regulatory intervention in markets.[105] Implicitly, if not explicitly, such a comparison pits the merits of an ideal regulatory construct against an imperfect market-based governance mechanism. In that case, the costs imposed by shortcomings of market-based resource allocation are judged against an unobserved and unrealizable ideal regulatory mechanism.[106] Alternatively, others too often pit the real world imperfections associated with the practice of regulation against idealized market allocations that would occur in a perfect market mechanism.[107] Again, an ideal construct is unrealistically pitted against the reality of an imperfect governance mechanism.[108] The reality, however, is that in practice neither regulation nor markets will realize their ideal. Thus, policymakers in an RBR world must compare the realistic alternatives of how more market-oriented governance functions in practice with how more governmentally directed governance would work in practice. This comparison of *actual* governance mechanisms, as they occur in reality, is at

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105. For a description of how this approach sprang from the earlier economic models, see Joskow, *supra* note 38, at 174-75.

106. The propensity for making the assumption of the costless and perfect imposition of governmental policies on firms in many cases springs from the static nature of analysis. This was anticipated by Adam Smith in his precursor to the *Wealth of Nations*, when he identified the perspective of government planners:

> He seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chess-board. He does not consider that the pieces upon the chess-board have no other principle of motion besides that which the hand impresses upon them; but that, in the great 'chess-board' of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might choose to impress upon it.

ADAM SMITH, THE THEORY OF MORAL SENTIMENTS 234 (D. D. Raphael & A. L. Macfie eds., Oxford Univ. Press 1976) (1896).

107. *See, e.g.*, Richard W. Rahn, *Costs Without Benefits*, WASH. TIMES, June 15, 2010, http://www.washingtontimes.com/news/2010/jun/15/costs-without-benefits/.

108. *See generally* Joskow, *supra* note 38 (giving a realistic assessment of the empirical analyses of regulation).

the core of an RBR paradigm designed to provide a guidepost for improved regulatory and deregulatory decision-making.[109]

B. ***Principle 2:*** *In the presence of advancing technology and evolving legal institutions, regulators must be vigilant to the possibility of improved regulatory or deregulatory designs.*

This principle cautions against inertia in the regulatory mechanism. Both industries and institutions evolve.[110] The result is that while one market governance mechanism may be superior at one point in time, its ability to promote economic welfare relative to realistic alternatives may fade in other periods. For example, regulation of both electricity and telecommunications during the middle of the twentieth century was predicated on the economic notion that the industries were subject to vast economies of scale, effectively creating natural monopolies.[111] Over time, however, technological changes in various parts of these industries significantly have reduced the advantages of scale.[112] For example, electric power can now be efficiently provided at relatively small scale by combined-cycle gas turbines.[113] Other small scale technologies such as solar, wind and geothermal technologies have also emerged with the result that that public-utility regulation of generation technologies will be inferior to more market-oriented governance of electricity supply.[114] Similarly, in the telecommunications industry, technological changes that gave rise, first, to long-distance transmission via microwave and later by fiber optic cable drastically altered the cost structure for long-distance communications, helping facilitate the emergence of scores of new entrants into the market

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109. In the context of competition policy, it is commonly recognized that comparisons among practical alternatives rather than ideal models of competition represent that point of departure for policy analysis. *See, e.g.*, Comments of the U.S. Dep't of Justice at 11, A Nat'l Broadband Plan for Our Future, FCC GN Docket No. 09-51 (rel. Jan. 4, 2010) [hereinafter Dep't of Justice Jan. 4 Comments] (noting that "[t]he operative question in competition policy is whether there are policy levers that can be used to produce superior outcomes, not whether the market resembles the textbook model of perfect competition.").

110. Anita M. McGahan, *How Industries Change*, HARV. BUS. REV., Oct. 2004, at 86, *available at* http://hbr.org/2004/10/how-industries-change/ar/1.

111. *See* Kira R. Fabrizio, Nancy L. Rose & Catherine D. Wolfram, *Do Markets Reduce Costs? Assessing the Impact of Regulatory Restructuring on US Electric Generation Efficiency*, 97 AM. ECON. REV. 1250 (2007) (examining the implications of alternative regulatory mechanisms in the electric utility industry through an RBR-oriented analysis); KASERMAN & MAYO, *supra* note 45.

112. *See* Dale N. Hatfield, Bridger M. Mitchell & Padmanabhan Srinagesh, *Emerging Network Technologies*, *in* 2 HANDBOOK OF TELECOMMUNICATIONS ECONOMICS 31-80 (Sumit K. Majumdar, Ingo Volgelsang, Martin E. Cave eds. 2005); David L. Kaserman and John W. Mayo, *The Measurement of Vertical Economies and the Efficient Structure of the Electric Utility Industry*, 39 J. INDUS. ECON. 483, 483-502 (1991).

113. Fabrizio, Rose & Wolfram, *supra* note 111.

114. *See id.* at 1250-77.

during the 1980s and 1990s.[115] Again, the technological changes acted to alter the appropriate market governance mechanism.[116]

The evolution of legal institutions may also affect the design of market governance mechanisms. As noted by Glaeser and Shleifer, the rise of regulation in the United States occurred at a time when the nation's legal institutions were not fully developed.[117] Both the reach and effectiveness of legal institutions in the nineteenth and early twentieth centuries were suspect.[118] The result was that broader regulatory institutions, rather than private litigation, were meritorious.[119] Society's institutions have evolved, however, and will continue to evolve. Such evolutions should properly provoke reflection among today's regulators regarding the appropriate market governance mechanism. Indeed, absent such reflections and evolution of regulatory mechanisms for an industry, the growth of rules, regulations, and laws may create both direct and indirect costs to society.[120] Direct costs may arise from firms' attempts to comply with overlapping, redundant, and conflicting regulations.[121] These costs have aptly been the target of President Obama's ire.[122] More subtly, inert regulation is likely to create indirect costs that arise through distortions to price, output, investment, and innovation relative to those that would occur in the event that market governance mechanisms were designed to comport with the evolution of institutions.

Perhaps most prominent among the institutional changes of the twentieth century that logically impact the design of twenty-first century regulation has been the maturation of the consumer and competition protections now afforded by the Federal Trade Commission ("FTC") and the Antitrust Division of the DOJ.[123] The statutes enabling these agencies provide them with wide-ranging authority to halt "unfair methods of competition,"[124] to block "contract[s], combination[s] . . . or conspirac[ies] in restraint of trade" and to halt "monopoliz[ation] or attempts to monopolize" in the conduct of interstate commerce.[125] Similar intrastate consumer and competition protection agencies have arisen over the twentieth century.[126] While debates can, and do, exist about the level of consumer protections afforded from these agencies relative to sector-specific regulation, there can be little doubt that intelligent design of sector-

115. KASERMAN & MAYO, *supra* note 45, at 604.
116. *Id.*
117. *See* Glaeser & Shleifer, *supra* note 17, at 402.
118. *Id.*
119. *Id.*
120. Obama, *supra* note 15.
121. *Id.*
122. *Id.*
123. *See* Federal Trade Commission Act, 15 U.S.C. § 45 (2006); Sherman Act, 15 U.S.C. §§ 1-2 (2006).
124. Federal Trade Commission Act § 45.
125. Sherman Act §§ 1-2.
126. *See e.g.*, Colorado Consumer Protection Act, COLO. REV. STAT. § 6-1-101 (2012).

specific regulation should account for the ability of these complementary, and, arguably, substitutable institutions to promote economic welfare.[127]

C. ***Principle 3:*** *Wherever possible, regulators should engage in empirical counterfactual scrutiny of alternative market governance mechanisms.*

Psychological research has identified the ability to engage in counterfactual thought as a sufficiently high-ordered function that it is not possible in lower-ordered animals.[128] That is, lower-ordered animals simply have no capacity to imagine or envision an alternative state of the world.[129] The consequence is that these animals optimize within a particular environment over which they feel they have no control. Humans, however, have the ability to envision alternative environments. In the case of the establishment and evolution of regulatory and deregulatory policies, not only can regulators and policymakers more generally engage in higher-ordered counterfactual thinking, but such counterfactual thinking is critical to achieving improved twenty-first century policymaking.

Empirical scrutiny of alternative market governance mechanisms creates the prospect of observing—in practice—how these market governance mechanisms work or fail to work.[130] Opportunities for these empirical exercises may be created by the presence of different market governance mechanisms in different governmental jurisdictions. Differences may exist across municipalities or states. Similarly, differences may exist between states' regulatory structures and federal market governance. Differences in governance mechanisms may also exist across countries. And, the ability to rigorously examine the economic consequences of changes in policy measures over time also provides an opportunity to improve policymaking on a forward-going basis.

While Principle 3 provides a promising tool for twenty-first century regulatory and deregulatory policymaking, it evokes a critical corollary. Specifically, the empirical review of alternative governance structures must be constructed in the most careful and thorough manner to ensure that comparisons are valid. Indeed, the downsides from glib or inapt comparisons are well known.[131]

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127. *See, e.g.*, Shelanski, *supra* note 23.

128. *See* David Danks, *The Psychology of Causal Perception and Reasoning*, *in* THE OXFORD HANDBOOK OF CAUSATION 460-63 (Helen Beebee, Christopher Hitchcock & Peter Menzies eds., 2009) (examining counterfactual reasoning by humans in the context of causal cognition by comparing it with the causal cognition in non-human animals).

129. *Id.*

130. *See* Howard, *supra* note 5.

131. *See, e.g.*, Joskow, *supra* note 38, at 181-82 (noting the propensity of World Bank and other international financial organizations to inaptly draw inferences regarding the role of institutions and institutional change in developing and developed countries); Scott

D. ***Principle 4:*** *In assessing the merits of alternative market governance mechanisms, policymakers should heavily weight granular empirical evidence collected from actual markets.*

Economic theory can be especially useful in framing the outlines of economic behavior and policymaking, but when imposed at the highest level, the ability of the theory to discriminate between alternative regulatory governance mechanisms becomes attenuated. The result is that reliance on high-level theory alone creates the profound risk that well-intentioned policymakers will draw incorrect inferences regarding superior market governance mechanisms. A case in point is the propensity of some policymakers to point indiscriminately at variations in measures of industry concentration, such as the Herfindahl-Hirchman Index ("HHI"), and from this high-level observation draw conclusions regarding the need for heightened regulatory policies.[132] While this proclivity is fraught with a number of economic errors, the one most relevant to RBR is that under the umbrella of relatively highly concentrated markets, competition may be either intense, distinctly pro-competitive, and consumer welfare enhancing; or less intense and lead to either coordinated or collusive behaviors that may harm consumer welfare. The point is that absent an empirical analysis of actual behaviors, the use of such high-level tools creates the profound risk of infinitely-lived regulatory superstructures for fear that behaviors may not comport with the benchmarks of perfect competition. In sum, a "boots on the ground" effort to scrutinize alternative governance structures will more reliably provide sound guidance to policymakers than higher-level theorizing about the potential consequences of potential policy changes.

E. ***Principle 5:*** *When considering alternative governance structures for a market, policymakers should focus on tangible, end-state economic metrics*

The best of regulatory and deregulatory policymaking over the past half-century has emanated from policymakers' emerging proclivities to focus on the practical implications of alternative market governance mechanisms on "retail" economic metrics such as price, output, investment,

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Wallsten & Stephanie Hausladen, *Net Neutrality, Unbundling, and their Effects on International Investment in Next-Generation Networks*, 8 REV. OF NETWORK ECON. 90, 107 (2009) (demonstrating that too-simple comparisons of broadband deployment rates across countries creates the profound risk of particularly poor policy extrapolations).

132. For a more apt use of the Herfindahl-Hirschman Index, see *Herfindahl-Hirschman Index*, DEP'T OF JUSTICE (last visited Jan. 14, 2013), http://www.justice.gov/atr/public/guidelines/hhi.html.

and innovation.[133] This external focus on retail economic metrics is in contrast to the historical appeals by some regulators to the vaguely—if ever—defined "public interest" standard which creates very difficult "in the eye of the beholder" possibilities that have no tangible link to governance mechanisms that promote economic welfare.[134] The focus on retail economic metrics also deviates from the historical tendency of regulators to seek to advance regulation by largely focusing on improving internal, incremental regulatory processes.[135] Thus, according to this principle, twenty-first century policymakers should focus more intently on comparisons of retail economic metrics than either elusive "public interest" standards or internal regulatory process improvements.[136]

While focus on retail economic metrics provides a foundation for improved twenty-first century policymaking, this focus necessitates considerable care if it is to serve as a foundation for policymaking inferences. For instance, consider the economic focus on price. Lower prices typically improve economic welfare.[137] When making price comparisons though, inappropriate comparisons may readily arise. For example, consider the task of making price comparisons from the vantage point of a regulator in a traditionally regulated market. The regulation of rail rates in the United States prior to the passage of the Staggers Act (which largely deregulated the pricing of rail services) acted to keep rail rates low and stable.[138] Observing these low rates, however, did not provide a plausible basis for inferring that rail regulation advanced economic welfare relative to deregulation. The reason, in part, was that by squeezing rates down, the profitability of investments by rate-regulated railroads was substantially diminished.[139] The resulting failure of railroads to invest led to

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133. Recall that, consistent with Principle 1, comparisons among retail economic metrics is not between a theoretical ideal and what is observed in practice, but rather between alternatives that are both observed.

134. *See, e.g.*, Erwin G. Krasnow & Jack N. Goodman, *The "Public Interest" Standard: The Search for the Holy Grail*, 50 FED. COMM. L.J. 605 (1998). In some cases, the focus by regulators on "the public interest" is dictated by legislation. Under such umbrella language, however, regulators have the liberty to gather practical empirical evidence of the effects of alternative governance mechanism as focal indicia of the public interest rather than more speculative theorizing that introduces the considerable risk of inapt policymaking.

135. *See id.* Historically, major regulatory effort has been dedicated to the development of largely internal regulatory processes such as better development of accounting cost systems to determine rates; methods to identify the appropriate cost of capital for determining a "fair" rate-of-return for the firm; or attempting to develop sophisticated cost models for identifying firms' incremental costs.

136. For a critique of the difficulties of implementing a "public interest" standard, see Breyer, *supra* note 82, at 566-69.

137. WALTER NICHOLSON & CHRISTOPHER SNYDER, MICROECONOMIC THEORY: BASIC PRINCIPLES AND EXTENSIONS 170-74 (11th ed. 2012).

138. B. Kelly Eakin et al., *Railroad Performance Under the Staggers Act*, 33 REGULATION 32, 32 (2010-2011).

139. *See* Beau B. Bump, *Held Captive: How Increased Regulation Arrests Railroads' Ability to Serve the Nation*, 5 DEPAUL BUS. & COM. L.J. 731, 733-36 (2007).

a dramatic decline in the quality of the rail infrastructure.[140] The declines were so pronounced that a regulatory category of derailments was created for "standing derailment[s]" in which a rail car—not in motion—simply fell over due to the poor quality of the track or the car.[141] In that instance, the removal of rate regulation created the incentive to invest in new rail infrastructure. In years following the deregulation of rail rates, investment in rail infrastructure increased dramatically.[142] It also created dramatic incentives for cost reductions that led to rates that were lower than the pre-deregulated rates.[143] Thus, while Principle 5 calls for a focus on retail economic metrics, that focus must cautiously consider the potential for interrelationships among these metrics under alternative market governance mechanisms.

The potential for abuse of Principle 5 can also be seen in the history of telephone regulation. For most of the twentieth century, regulators priced local exchange telephone service "residually."[144] That is, they used the Separations and Settlement system to establish prices for long-distance and access services to generate sufficient firm profits for AT&T that only residual revenues were required to be generated from local exchange telephone service.[145] The result was the perpetuation of extremely low local exchange telephone rates.[146] These low rates, however, were not proof of the success of the regulatory mechanism.[147] Indeed, many have pointed to these artificially low rates as evidence of regulatory failures.[148] The point here is not to reopen that debate, but rather simply to point out that while the regulatory focus on retail economic metrics can be a useful principle for twenty-first century policymaking, it should be exercised cautiously.

Finally, while some economic metrics such as price, output, and innovation are incontrovertibly central to the foundation of economic welfare, others are likely to prove more debatable. This then necessarily begs the question of *which* metrics are worthy of focus. The principle enunciated here purposefully does not answer this question. Indeed, the metrics that will be worthy of focus should be resolved through public debate and are not necessarily static. For example, retail economic metrics

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140. *Id.*

141. Frank N. Wilner, *Railroads and the Marketplace*, 16 TRANSP. L.J. 291, 313 (1988).

142. *See* ASSOC. OF AM. R.R., A SHORT HISTORY OF U.S. FREIGHT RAILROADS 4 (2012), *available at* https://www.aar.org/keyissues/Documents/Background-Papers/A-Short-History-of-US-Freight.pdf.

143. *See* Mark L. Burton, *Railroad Deregulation, Carrier Behavior, and Shipper Response: A Disaggregated Analysis*, 5 J. REG. ECON. 417, 433 (1993).

144. *See* Kaserman, Mayo & Flynn, *supra* note 29, at 233-34.

145. *See id.*

146. *Id.*

147. *See, e.g.*, Alfred E. Kahn, *The Road to More Intelligent Telephone Pricing*, 1 YALE J. ON REG. 139, 140-42 (1984) (discussing inefficiencies in telecommunications pricing systems).

148. *See id.*; *see generally* Kaserman, Mayo & Flynn, *supra* note 29, at 119.

that are seen in one light in one period may take on new and heightened importance in other times.

Consider, for instance, the role of investment by regulated firms. For the majority of the twentieth century, investment by regulated firms garnered relatively little attention, as most regulation was aimed at controlling regulated firms' prices and profits.[149] Indeed, in this environment, to the extent that regulators did focus on investment, their principal concern was that regulated firms were likely to over-invest.[150] Today, however, many of the industries that were intensively regulated in the twentieth century face unparalleled investment challenges. For example, it has been estimated that to accommodate the exploding demand for broadband telecommunications services, roughly $300 billion in new investment will need to occur over the next two decades.[151] In this context, the impact of alternative market governance mechanisms on the rate of private sector investment is likely to be a central consideration to twenty-first century RBR regulators.[152]

While investment has risen in importance as a retail economic metric worthy of focus, regulatory use of profit metrics and profit regulation has withered in the past fifty years.[153] This move away from profit as a worthy economic metric developed from both economic research and regulatory practice.[154] Economic criticism of profit as a metric for regulation has been widespread, ranging from charges that profit regulation induces allocative inefficiencies,[155] to charges that profit regulation attenuates incentives for

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149. *See* KASERMAN & MAYO, *supra* note 45.

150. This concern followed the publication of Harvey Averch and Leland Johnson who demonstrated that under rate-of-return regulation incentives were created for firms to over-intensively invest in capital. *See generally* Averch & Johnson, *supra* note 40. Blank and Mayo demonstrate that this propensity for over-investment continues, albeit in attenuated form, for hybrid regulatory mechanisms adopted in the latter part of the twentieth century. *See* Larry Blank & John W. Mayo, *Endogenous Regulation and the Emergence of Hybrid Regulatory Constraints*, 35 REV. INDUS. ORG. 233 (2009). Apart from theoretical concerns, twentieth century regulators also addressed concerns of investment that they saw as excessive and, therefore, uneconomic. *See* Thomas P. Lyon & John W. Mayo, *Regulatory Opportunism and Investment Behavior: Evidence from the U.S. Electric Utility Industry*, 36 RAND J. ECON. 628 (2005).

151. DAVID P. MCCLURE, U.S. INTERNET INDUS. ASSOC., THE EXABYTE INTERNET 14 (2007), *available at* http://usiia-net.org/pubs/The%20Exabyte%20Internet.pdf; John Earnhardt, *A National Imperative: Broadband Everywhere by 2010*, CISCO (Jan. 15, 2002), http://newsroom.cisco.com/dlls/ts_011502.html.

152. For an example of the recent focus on the impacts of alternative market governance mechanisms on investment, see Alberto Alesina et al., *Regulation and Investment*, 3 J. EURO. ECON. ASSOC. 791 (2005). For a description of the investment challenges facing the electric utility industry, see William W. Hogan, *Electricity Market Structure and Infrastructure*, *in* ACTING IN TIME ON ENERGY POLICY 128 (Kelly Sims Gallagher ed., 2009).

153. *See* KASERMAN & MAYO, *supra* note 45, at 460.

154. *See id.* at 463-70 (describing the effects of rate-of-return regulation on the electric utility industry, the surface transportation industry, and the cable TV industry).

155. *See id.* at 460, 470-71.

cost reductions.[156] Academic skepticism, together with generally poor economic performance of rate-of-return regulation led regulators in the past twenty years to increasingly abandon profit regulation.[157]

IV. RESULTS-BASED REGULATORY POLICY: THE CASE OF TELECOMMUNICATIONS

Both the core principles of an RBR approach to market governance and the early successes with the approach are suggestive of a fresh and effective basis for twenty-first century regulatory and deregulatory policy formation. The approach is attractive because it is neither formulaic nor ideologically driven. RBR provides both structure, through the application of the RBR principles, and flexibility, as regulatory policies enacted as the product of RBR analysis inevitably differ with varying marketplace conditions across sectors of the economy.

While a number of sectors could benefit from an RBR framework for regulatory governance, arguably nowhere are the opportunities for economic welfare gains from RBR greater than in the telecommunications industry. The industry is both large and dynamic with a wide consensus that with an appropriate set of policy instruments in place, the industry has the potential to add immeasurably to both consumer welfare and America's economic competitiveness.[158] Given the immense size and complexity of the telecommunications industry, a complete RBR assessment of policymaking in this sector is beyond the scope of this paper. Nonetheless, in the spirit of a "proof of concept," two cases drawn from the telecommunications industry provide useful insights into the establishment of market governance policies from an RBR perspective.

Consider first the governance of the wireless telecommunication marketplace. Regulators initially envisioned that incumbent telephone companies would provision wireless services as a monopoly.[159] In the early 1980s, however, the formal introduction of cellular service was structured as a duopoly, with one provider being the local exchange company while the other was an unaffiliated provider.[160] Two contenders for the governance structure of this market emerged. One was to simply recognize the concentrated nature of the industry and engage in regulatory policies designed to constrain perceived market power through regulation of prices.

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156. For more detailed discussions, see *id.* at 480 and Armstrong & Sappington, *supra* note 51, at 1626-27.

157. KASERMAN & MAYO, *supra* note 45, at 546.

158. *See National Broadband Plan*, *supra* note 8, at 3; Kerry, *supra* note 8.

159. *See* Implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993, *First Report*, FCC 95-317, 10 FCC Rcd. 8844, para. 3 (1995), *available at* http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-95-317A1.pdf.

160. *Id.*

The alternative, which was ultimately chosen by the FCC, was to fashion policy to alleviate governmentally induced constraints stemming from wireless firms' inability to secure sufficient spectrum for entry and investment in this market.[161]

The FCC's decision was informed by an RBR approach. In particular, some states (e.g., California and New York) initially chose to regulate cellular prices while others did not.[162] This policy variation gave rise to the opportunity to engage in a serious, granular empirical inquiry into the effects of state-level regulation of wireless prices. After controlling for a variety of marketplace determinants of cellular prices, it was found that state-level regulation of cellular service led to increases in prices of between five and fifteen percent.[163] At the same time, it was pointed out that England had recently expanded its wireless configuration to include digital personal communications services ("PCS") with the effect that prices there had fallen.[164] In the end, the FCC denied petitions by the states to retain their authority to regulate wireless prices.

In the years since the price deregulation of the wireless industry, it has been in a constant state of flux.[165] Organic growth, mergers, and technological changes have profoundly altered marketplace conditions.[166] Today, policy oversight of the wireless industry continues.[167] To be sure, the wireless industry is not atomistically structured, and mergers among wireless providers have had the effect of adding to market concentration.[168] This has created calls for heavier regulation of the wireless industry to reign in perceived market power that is thought to emanate from that

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161. *Id.* at paras. 83-84.

162. *See* Comments of the Cellular Telecomms. Indus. Ass'n, Affidavit of Jerry Hausman at paras. 8, 18, Petition of the People of the State of Cal. & the Pub. Utils. Comm'n of the State of Cal. to Retain Reg. Auth. Over Intrastate Cellular Serv. Rates, FCC PR Docket No. 94-105 (rec. Sept. 19, 1994) [hereinafter Affidavit of Hausman], *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=1354110003.

163. *Id.* at para. 7.

164. *See* Comments of the Cellular Telecomms. Indus. Ass'n at 20 n.43, Petition of the People of the State of Cal. & the Pub. Utils. Comm'n of the State of Cal. to Retain Reg. Auth. Over Intrastate Cellular Serv. Rates, PR Docket No. 94-105 (rec. Sept. 19, 1994), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=1354110001.

165. Leonard J. Kennedy & Heather A. Purcell, *Wandering Along the Road to Competition and Convergence–The Changing CMRS Roadmap*, 56 FED. COMM. L.J. 489, 491 (2004).

166. *See id.*

167. Tricia Duryee, *FCC Officially Looking Into Wireless Industry Practices – Regulation May Be Coming*, PAIDCONTENT (Aug. 27, 2009), http://paidcontent.org/2009/08/27/419-fcc-officially-looking-into-wireless-industry-practices-regulation-may/.

168. *See, e.g.*, Comments of Consumer Fed'n of Am., Consumers Union, Free Press, Media Access Project, New Am. Found. & Public Knowledge at 30-31, Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, WT Docket No. 09-66 (rec. June 15, 2009), *available at* http://apps.fcc.gov/ecfs/document/view?id=6520221076.

market structure.[169] Others are quick to reply that the market is robustly competitive and ill-suited as a target of regulation.[170]

The RBR principles, informed by an examination of the retail economic metrics of this industry, are likely to be a useful guide to policymakers today as they decide whether to move the wireless industry toward more regulatory governance or to maintain the lighter touch approach that has been the trademark of policy since the mid-1990s. First, Principle 1 reminds us that in practice, no governance mechanisms are perfect. This cautions against regulators pursuing market structure standards that mirror textbook models of perfect competition in the wireless industry.[171] Rather the RBR-based question is whether—after recognizing and accounting for the costs of imposing additional regulation—industry performance will be improved as a consequence of any additional regulation. In the case of the wireless industry, the most relevant dimension of Principle 2 is that while market concentration and changes in market concentration brought about by mergers can give rise to competitive concerns, in the modern era the FCC can and should look to the complementary efforts of the antitrust authorities.[172] Specifically, the DOJ and FTC have emerged as strong institutional forces to protect the integrity of markets. For instance, the DOJ is specifically charged with ensuring compliance with the Sherman Act's proscription of preventing "contract[s], combination[s] . . . , or conspirac[ies], in restraint of trade . . . ."[173] Principle 2 indicates that in the presence of active antitrust enforcement agencies, the merits of sector-specific ex ante regulation to control market power is likely to prove inferior to ex post controls that govern firms.[174]

Regulatory scrutiny of the wireless industry under Principles 3, 4, and 5 are also likely to provide considerably useful guidance to policymakers as they shape the future of regulatory and deregulatory policymaking in the wireless industry. In the absence of significant cross-state variations in regulatory policies, the most useful approach to examining the industry is likely to be inter-temporal. Specifically, how have retail economic metrics such as pricing, output, innovation, and investment evolved over time? In the case at hand, these statistics project a prima facie case that the existing, largely deregulatory approach to

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169. *Id*.

170. John W. Mayo, *It's No Time to Regulate Wireless Telephony*, 5 ECONOMISTS' VOICE 1, 1 (2008).

171. In its comments on the development of the National Broadband Plan, the Department of Justice offers the similar position that "[t]he operative question in competition policy is whether there are policy levers that can be used to produce superior outcomes, not whether the market resembles the textbook model of perfect competition." Dep't of Justice Jan. 4 Comments, *supra* note 109, at 11, 29.

172. *See supra* note 123 and accompanying text.

173. Sherman Act, 15 U.S.C. § 1 (2006).

174. *See* Shelanski, *supra* note 23, at 57-58.

policymaking in this industry has been strikingly successful. Prices, which in the mid-1990s stood at forty-four cents per minute for a voice call, have now fallen to roughly five cents per minute.[175] These lower prices would appear to be creating significant value for American consumers, with the average American spending over ten hours on his or her cell phone every month.[176] In addition, the policy environment has led to an explosion of choices of wireless devices. By 2012, American consumers could choose from over 600 different wireless handsets and devices, with new devices arriving on the market regularly.[177] Indeed, the value created by wireless services has been so high as to prompt over one-third of American households to drop their wireline telephone connections entirely.[178]

Detractors of these inter-temporal observations may logically raise the possibility of a more successful counterfactual scenario that may arise under an alternative set of policies directed at the wireless industry.[179] While such possibilities cannot be ruled out in this thumbnail analysis, what is important is that the policymaking effort under the RBR framework focuses policymakers on relevant results rather than on high-level speculation. In that regard, under an RBR approach the challenges to those who seek to scrap the current, light-handed regulatory framework include a demonstration that an alternative set of policies would demonstrably improve prices, output, innovation, and investment in the wireless industry relative to those that result from the current policies.[180]

A second arena within the telecommunication industry that offers an opportunity to consider an RBR approach centers on the provision of high-capacity dedicated access services that are provided by local telephone companies to either large businesses or to wireless communications carriers for "backhaul" of their wireless traffic to landline networks.[181] Competitive

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175. *See* Annual Report & Analysis of Competitive Mkt. Conditions With Respect to Mobile Wireless, Including Commercial Mobile Servs., *Fifteenth Report*, FCC 11-103, para. 191, tbl. 20 (2011), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-103A1_Rcd.pdf; Affidavit of Hausman, *supra* note 162, at paras. 18-19.

176. CTIA–THE WIRELESS ASS'N, CTIA'S WIRELESS INDUSTRY INDICES REPORT: YEAR-END 2011 RESULTS, at 215, tbl. 87 (2012).

177. CTIA–THE WIRELESS ASS'N, CTIA WIRELESS INDUSTRY OVERVIEW 18 (2012), *available at* http://files.ctia.org/pdf/042412_-_Wireless_Industry_Overview.pdf.

178. STEPHEN J. BLUMBERG & JULIAN V. LUKE, CTR. FOR DISEASE CONTROL & PREVENTION, WIRELESS SUBSTITUTION: EARLY RELEASE OF ESTIMATES FROM THE NATIONAL HEALTH INTERVIEW SURVEY, JANUARY-JUNE 2012 (2010), *available at* http://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201212.PDF.

179. *See also* Affidavit of Hausman, *supra* note 162, at paras. 10-11.

180. Comparisons of the wireless industry structure with textbook models of perfect competition will inevitably prompt some to advocate a more regulatory approach in this sector. But as Principle 4 cautions, where granular empirical evidence regarding performance is available, this information is preferable to depictions of high-level economic theory standing alone.

181. *See* STEPHEN E. SIWEK, ECONOMIC BENEFITS OF SPECIAL ACCESS PRICE REDUCTIONS 5-7 (2011). For large firms that require dedicated access, access is provided as "transport" services while for wireless carriers that purchase special access the more typical

entry by firms offering these dedicated access service has been permitted since the 1980s.[182] While competition was permitted, the fear of monopolistic pricing or behavior was sufficiently high during the 1980s and 1990s that the FCC maintained stringent regulatory controls over the so-called special access services provided by the incumbent local exchange carriers ("ILECs") during this period.[183]

Given the cost of deploying access facilities and the concentration of demand for high capacity special access services in large cities, new entrants initially focused their efforts in dense urban areas rather than making investments in less densely populated areas.[184] Given this observed variation in the geographic presence of competitors, the FCC moved in 1999 to establish a tailored, tiered approach to market governance for the provision of special access services.[185] Under the approach, local telephone companies are granted pricing flexibility within particular metropolitan areas upon a specific showing that competitors have made substantial investments in the specific geographic area.[186] The logic for this regulatory structure was that once competitors had sunk investments in a particular geographic market, firms would compete aggressively for the patronage of dedicated access customers.[187] In that case, the governance of pricing in that geographic area could more efficiently be provided by a more market-oriented governance mechanism.[188]

The specific mechanism consists of three tiers.[189] In the absence of competitive indicators, a price cap mechanism is retained.[190] "Phase I"

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arrangement is for dedicated facilities to extend from the wireless carrier's facilities and terminate at the landline facilities of the local telephone company. This later "backhaul" service is referred to as "channel termination." *Id.*

182. *See* Cox Cable Commc'ns, Inc., Commline, Inc. & Cox DTS, Inc. Petition for Declaratory Ruling, *Memorandum Opinion, Declaratory Ruling, and Order*, FCC 85-455, 102 F.C.C. 2d 110, para. 40 (1985), *vacated as moot*, 61 Rad. Reg. (P & F) 967 (1986).

183. *See* Florence O. Setzer, *Divestiture of AT&T and the Separate Subsidiary Requirement* (FCC OPP Working Paper Series, Paper No. 11, 1984), *available at* http://transition.fcc.gov/Bureaus/OPP/working_papers/oppwp11.pdf. The highest end dedicated access facilities of the ILECs, provided by fiber optic technologies are not regulated granted full pricing flexibility in 19XX. This left access facilities provided over DS1 (also called T-1) and DS3 b (also called T-3) facilities as the special access services that were, and are, the subject of regulatory scrutiny. DS-1 and DS-3 carry 1.544 and 45 megabits per second, respectively.

184. Access Charge Reform: Reform of Access Charges Imposed by Competitive Local Exch. Carriers, *Seventh Report and Order and Further Notice of Proposed Rulemaking*, FCC 01-146, para. 65 (2001), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-01-146A1.pdf.

185. *See* Access Charge Reform: Price Cap Performance Review for Local Exch. Carriers, *Fifth Report and Order and Further Notice of Proposed Rulemaking*, FCC 99-206, paras. 1-6 (1999) [hereinafter *Special Access Price Flexibility Order*], *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-99-206A1.pdf.

186. *Id.* at paras. 24-25.

187. *See id.* at para. 26.

188. *Id.* at para. 61.

189. *Id.* at para. 11.

relief from the default regulatory regime (viz., price caps) is granted upon a showing that competitors to incumbent local exchange carriers have made irreversible investments in the facilities needed to provide dedicated access.[191] Under the FCC's regulatory structure, the showing that this threshold has been reached requires that certain "triggers" be met that demonstrate in concrete terms the presence of competitors' irreversible, sunk cost investments.[192] Under Phase I relief, ILECs are permitted to offer volume and term discounts, while requiring them to maintain their generally available price cap constrained tariffed rates, thereby protecting those customers that lack competitive alternatives.[193]

To obtain "Phase II" relief, ILECs must show that competitors have established a sufficient market presence such that the incumbent telephone company is precluded from exploiting any individual market power over a sustained period.[194] The "triggers" for Phase II regulatory relief are more stringent than for Phase I relief, requiring a greater showing of competitive presence in specific metropolitan areas. Under Phase II relief, ILECs are granted full pricing flexibility.[195]

In recent years, this regulatory structure has come under attack and calls for the re-imposition of pricing and profit controls for these services have arisen.[196] Some have gone so far as to assert that "special access market is an Economics 101 textbook example of a market failure."[197] Others contend that the regulatory structure is flexible enough to permit incumbent telephone companies to respond to competition as it arises, and, as more competition emerges, more pricing flexibility is appropriately granted.[198] As regulators ponder the future of the governance of this market, a number of lessons emerge from the RBR framework.

Consistent with Principle 1, the FCC approach to establishing the current regulatory regime explicitly recognized that its use of triggers was adopted, in part, in recognition that alternative market governance

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190. *Id.* at para. 154.

191. *See id.* at paras. 24-25.

192. Specifically, the FCC requires that competitors who are unaffiliated with the incumbent LEC have established operational collocation arrangements in a certain percentage of the incumbent LEC's wire centers in an MSA, or have established operational collocation arrangements in wire centers accounting for a certain percentage of the incumbent LEC's revenues from the services in question. *See id.*

193. *Id.* at paras. 68-69.

194. *Id.* at paras. 25-26.

195. *Id.* at paras. 204-06.

196. SIWEK, *supra* note 181.

197. Comments of Sprint Nextel Corp. at i, Special Access Rates for Price Cap Local Exch. Carriers, FCC WC Docket No. 05-25 (rel. Aug. 22, 2012).

198. This approach to easing regulatory controls in response to emergent competition was outlined by the FCC in 1999, stating that it envisioned an approach that "would enable it to give carriers progressively greater flexibility to set rates as competition develops, until competition gradually replaces regulation as the primary means of setting prices." *Special Access Price Flexibility Order*, *supra* note 185, at para. 2.

mechanisms would impose greater administrative regulatory burdens with little or no assurance of superior outcomes.[199] As when this market governance methodology was adopted, Principle 1 today requires regulators to continue to recognize that criticisms of the triggers-based regulatory approach cannot, in and of themselves, justify scrapping this approach. Proposals to scrap the current approach in favor of either price or profit regulation cannot be made under idealized notions of how these alternatives might work in an ideal setting. Rather, these alternatives can only be evaluated in light of their imperfections and costs in practice. That is, the question is not whether the current regulatory regime is perfect, but rather whether the proposed alternative creates the assurance that economic metrics of interest can be improved sufficiently to warrant the change in regulatory regimes.

On this matter, a careful historical assessment of the performance of these alternatives elicits skepticism. Profit regulation is notoriously difficult and costly in practice, and has shown itself to create a number of economic distortions.[200] Indeed, various economic studies widely criticized the performance of profit regulation in the twentieth century and called for price regulation.[201] Such calls for price regulation raise at least two concerns. First, price regulation of markets in which firms compete creates the profound risk of distortions to the incentives for much needed investment.[202] Second, the determination of the appropriate price, often

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199. *See id.* at paras. 89-91 (declining to adopt the proposed requirement that incumbent LECs prove market non-dominance as a prerequisite to pricing flexibility because the process of so doing is "neither administratively simple nor easily verifiable," and because the results of which "generate considerable controversy that is difficult to resolve").

200. *See, e.g.*, Breyer, *supra* note 82, at 562-65 (discussing how a "competitive regime" differs from "cost-of-service ratemaking," i.e., profit regulation, in that the latter creates "prices [that] remain stable for fixed periods of time," that do "not yield the expected revenue because of demand change," and that "do not change to reflect changes in efficiency or market condition," all of which make "it difficult [for firms] to experiment with different price structure").

201. *See generally* Armstrong & Sappington, *supra* note 51, at 1557 (analyzing government regulation of industries, including profit regulation, using theoretical and empirical economics; discussing the benefits and costs of different kinds of regulation in various contexts; and citing previous economic studies that found different negative effects of profit regulation to the market, consumers, and competition).

202. This disincentive to invest can arise simply because the regulated price is too low, or, in the event that the price regulated service is made available at wholesale to competitors, those competitors simply purchase from the regulated firm rather than making their own investments. *See* Crandall & Hausman, *supra* note 6, at 75-76, 109-10 (reasoning that price regulation limits the "ability [of incumbent LECs] to exploit the value of their own networks, stunt[s] the incentives to invest in new facilities by existing carriers, and delay[s] investments by entrants as they wait for regulators to provide them with access to the full complement of incumbents' facilities at below-cost prices").

yoked to the economic concept of marginal cost, has proven to be an especially elusive and costly exercise in practice.[203]

Principle 2 is especially relevant to the governance of the provision of special access services. That principle highlights the important pro-competitive reinforcement and backstops afforded by the antitrust authorities in markets such as telecommunications where mergers have altered the structural landscape of the market. In the case at hand, in the face of recent telecommunications mergers, the DOJ drew upon the standard competitive assessment tools from the antitrust arena to evaluate whether the mergers would give rise to competitive concerns.[204] To ensure that the mergers did not have the effect of substantially harming competition in the provision of special access services, the DOJ required certain divestitures of dedicated facilities owned by the merging parties.[205] Similarly, any attempts by ILECs that provide dedicated access to employ any extant market power to enhance or maintain that market power through anticompetitive contractual restrictions on customers will fall directly within the reach of the antitrust enforcement officials that are charged with preventing attempts to monopolize.[206] The competitive protections afforded by the antitrust enforcement agencies can then give comfort that consumer interests are being served under the existing regulatory regime.[207]

Principle 3 also speaks to the regulation of special access. In the case at hand, the regulatory construct of three separate tiers of regulation might seem to afford the potential for meaningful comparisons across these tiers, with the result that one could compare the effects of each tier on relevant economic metrics. In the case of the provision of special access services, however, this cross-sectional analysis is not possible. In particular, a substantial portion of special access contracts is for large enterprises with multiple locations, including both Phase 1 and Phase 2 metropolitan areas.[208] Due to the large, multijurisdictional nature of special access customers, discounts are typically specified as a percentage off tariffed

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203. *See id.* at 88-89 (arguing that regulators are not in the best position to determine marginal cost because they "generally [are] the last to know the level of costs, particularly in a dynamic industry such as telecommunications with its abundance of joint and common costs").

204. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-07-80, FCC NEEDS TO IMPROVE ITS ABILITY TO MONITOR AND DETERMINE THE EXTENT OF COMPETITION IN DEDICATED ACCESS SERVICES 25 (2006) [hereinafter GAO STUDY ON FCC AND COMPETITION], *available at* http://www.gao.gov/new.items/d0780.pdf (discussing the DOJ Antitrust Division's review of the mergers between AT&T and SBC and between Verizon and MCI, the process used, and the findings and conclusions after that review).

205. *See id.*

206. *See Special Access Price Flexibility Order*, *supra* note 185, at 69-70.

207. *Id.*

208. *See* PETER BLUHM WITH ROBERT LOUBE, COMPETITIVE ISSUES IN SPECIAL ACCESS MARKETS 6 (2009), *available at* http://nrri.org/pubs/telecommunications/NRRI_spcl_access_mkts_jan09-02.pdf.

prices and are by contract rather than by regulatory area.[209] Thus, because price cap regulation dictates lower tariffed prices, the discounted prices in these areas nominally appears to be lower than in Phase 2 areas.[210] This confounds any value in a cross-sectional comparison of prices.

While cross-sectional analysis is not useful in this instance, it is possible to utilize a before-and-after approach, guided by Principles 4 and 5, to address the question of the effectiveness of the current special access governance mechanism. In particular, although somewhat speculative at the time of the 1999 decision to adopt the current regulatory regime for special access, the FCC proffered that "regulatory relief will increase the efficiency of the interstate access market and reduce prices to end-user customers."[211]

With the passage of time, it is now possible to assess the consequences of the FCC's triggers as a market governance mechanism. Because special access services are most typically sold to large firms, it is normal that these customers do not pay the tariffed or so-called "rack" rates, but rather negotiate among vendors for discounted payments.[212] The result is that the most meaningfully measured prices are in the form of average revenue per unit.[213] In the case of special access, several studies have examined the evolution of these prices over time.[214] In each case, the result-based conclusion is that consumers have benefited by price reductions after implementation of the current market governance mechanism.[215] For instance, the Government Accountability Office studied the evolution of the pricing of special access services in the wake of the 1999 establishment of the triggers framework and concluded that "the decrease [in prices] appears to be consistent with the prospect of competition that FCC predicted."[216] Such RBR benchmarks should provide useful input to regulators as they consider the merits of alternative market governance of the special access market.[217]

Similarly, other economic metrics also provide the opportunity to gauge the merits of the current FCC approach to governing special access. While a number of factors—including the rapidly expanding demand for wireless telephony—have led to growing demand for special access, it

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209. *See id.* at 20 (noting that firms selling special access do not typically differential the price by regulatory jurisdiction but rather offer a single set of prices across their respective footprints).

210. *See id.* at 2, 20, 27-28.

211. *See Special Access Price Flexibility Order*, *supra* note 185, at 42.

212. *See* PATRICK BROGAN & EVAN LEO, HIGH-CAPACITY SERVICES: ABUNDANT, AFFORDABLE, AND EVOLVING 42 (2009).

213. *See id.*

214. *See* GAO STUDY ON FCC AND COMPETITION, *supra* note 204, at 13; BROGAN & LEO, *supra* note 212, at 3, 42; BLUHM WITH LOUBE, *supra* note 211, at 58.

215. *Id.*

216. *See* GAO STUDY ON FCC AND COMPETITION, *supra* note 204, at 13.

217. Peter BLUHM WITH LOUBE, *supra* note 208211, at Bluhm with Dr. Robert Loube, Nat'l Regulatory Research Inst., *Competitive Issues in Special Access Mkts., Revised Edition* 86-87 (2009).

appears that the current regulatory regime has readily facilitated that expansion. Special access circuits have expanded in recent years by annual growth rates of sixteen percent.[218] I should emphasize that the goal here is not to engage in a full-blown RBR analysis, but rather to simply point to the sorts of economic metrics that can be employed by regulators under such an approach.

V. CONCLUSIONS AND CAVEATS

Concurrent with issuing an Executive Order to review and ferret out unnecessary regulations that are acting to hamper economic welfare and growth in the United States, President Obama recently observed that

> [t]his is the lesson of our history: Our economy is not a zero-sum game. Regulations do have costs; often, as a country, we have to make tough decisions about whether those costs are necessary. But what is clear is that we can strike the right balance. We can make our economy stronger and more competitive, while meeting our fundamental responsibilities to one another.[219]

The aim of this paper has been to provide a new lens and fresh perspective for regulators as they seek that balance. Importantly, the RBR framework offered here relies neither on simple appeals to ideology nor on the ability of regulators to simply balance the strengths of opposing interest groups. Rather, the RBR framework identifies a set of principles that have proven themselves in practice to be useful in discerning how to move the policy lever in a way that promotes economic welfare.

I wish to emphasize that while the framework of RBR is offered in the spirit of a fresh approach, I do not seek to make claims of excessive originality. The concepts presented here do not arrive entirely de novo, but rather draw from and build upon the work of numerous others. As early as 1989, Alfred Kahn spoke of the importance of a "Demonstration Effect" that was at work as the airline industry moved through its deregulatory

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218. *Id.* at 8.

219. Obama, *supra* note 15. Note that such calls are not new. President Bill Clinton once observed that,

> [w]e all want the benefits of regulation . . . But let's face it, we all know the regulatory system needs repair. Too often the rule writers here in Washington have such detailed lists of dos and don'ts that the dos and don'ts undermine the very objectives they seek to achieve, when clear goals and operation for cooperation would work better.

See President William J. Clinton, Remarks at the Regulatory Reform Event (Feb. 21, 1995) (transcript available at http://govinfo.library.unt.edu/npr/library/speeches/265e.html).

phase.[220] More recently, Paul Joskow has identified the growing adoption of natural experiments in industrial organization research of regulated industries as a vehicle for improved insight into the effects of regulation or deregulation.[221]

The emergence of RBR also parallels developments in administrative law. In particular, beginning with President Reagan and continuing under Presidents Bush, Clinton, and now Obama, a number of presidential Executive Orders have been promulgated that require federal agencies to engage in a determination of the likely benefits and costs of rules that they consider promulgating.[222] A dispassionate reading of such a call for assessing the benefits and costs of regulatory measures would appear to be unobjectionable. Nonetheless, a number of critics have asserted that requirements for administrative agencies to engage in a cost-benefit assessment of potential regulatory requirements are not meant to advance sound economic policies. Rather, the cost-benefit assessment requirement is a tool of those ideologically opposed to regulation. In this instance, the inability to separate the tool from a larger ideological push will undermine the credibility and effectiveness of what would otherwise be a viable regulatory assessment tool. Hahn offers a recent discussion of the available mechanisms to improve the viability of cost-benefit analysis.[223]

Perhaps most akin to the framework presented here, Professor Breyer offers an approach that is "built upon a simple axiom for creating and implementing any program: determine one's objectives, examine the alternative methods of obtaining those objectives, and choose the best method for doing so."[224] Indeed, Breyer observes:

> Whether reform should take place . . . depends on a detailed examination of the actual effect of the regulatory program at issue. A detailed empirically based inquiry is necessary because, regardless of the regulatory program's basic objective (and the possible inability of regulation to achieve that objective), any existing program will in fact serve a host of subsidiary objectives.[225]

Thus, his approach, like mine, is less driven by philosophical arguments about the merits of free markets or government regulation, but rather is rooted in an assessment of practical alternatives and their outcomes.

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220. *See* Peltzman, *supra* note 36, at 59.

221. *See* Joskow, *supra* note 38, at 182, 190.

222. *See, e.g.*, Exec. Order No. 12291, 46 Fed. Reg. 13,193 (Feb. 17, 1981).

223. Robert Hahn, *Designing Smarter Regulation with Improved Benefit-Cost Analysis*, 1 J. BENEFIT-COST ANALYSIS 1, 1 (2010), *available at* http://www.bepress.com/jbca/vol1/iss1/5. In this vein, see also CASS R. SUNSTEIN, THE COST-BENEFIT STATE: THE FUTURE OF REGULATORY PROTECTION (2002).

224. *See* Breyer, *supra* note 82, at 550.

225. *Id.* at 604.

I necessarily close with an uncomfortable, but logical, observation. Principle 1 of the RBR framework for twenty-first century regulatory and deregulatory policy observes that in practice all market governance mechanisms are imperfect. This principle is no less true for a RBR approach to market governance than it is for the prominent twentieth century mechanisms of rate-of-return regulation, price controls, or hybrids thereof. Moreover, as Smith warned over 250 years ago, it is difficult to fully anticipate the dynamic reactions of firms or regulators in the wake of adhering to the RBR principles that I have enunciated.[226] That caveat notwithstanding, empirical, granular focus on the actual outcomes of economic metrics within an RBR framework creates the opportunity to differentiate industries in which deregulatory policies have been successful from those where they may have failed. In so doing, the realistic prospect arises for RBR as a foundation not of perfect market governance for the twenty-first century but of the more realistic prospect of better regulatory and deregulatory policymaking.

226. SMITH, *supra* note 106.