

## EDITOR'S NOTE

Welcome to the second Issue of Volume 65 of the Federal Communications Law Journal, the nation's premier communications law journal and the official journal of the Federal Communications Bar Association.

This Issue examines a broad array of issues in communications law. In the opening article, John W. Mayo, a professor of Economics, Business and Public Policy at Georgetown University's McDonough School of Business, seeks to develop a regulatory policy framework appropriate for the twenty-first century. Drawing on the historical evolution of regulation in the United States, Mayo proposes adopting a regulatory model grounded in "results-based principles."

The second Article authored by Brent Skorup, the research director for the Information Economy Project at the George Mason University School of Law, and Adam Thierer, a senior research fellow at the Mercatus Center at George Mason University, critiques Tim Wu's Separations Principle for the information economy which calls for stringent antitrust standards. Skorup and Thierer also argue that vertically integrated companies in the information economy are largely competitive and do not pose the antitrust concerns contemplated by Wu.

Additionally, this Issue includes two Notes. In the first Note, Matthew Friedman, a recent graduate from the George Washington University Law School and an attorney with the Technology Law Group, examines the FCC's compromise with the wireless industry on "bill shock." In the second Note, Jacob Minne, a member of the Class of 2013 at Santa Clara University School of Law, discusses the antitrust implications of "data caps" used by Internet service providers.

The *Journal* is committed to providing its readership with substantive coverage of relevant topics in communications law, and we appreciate the continued support of contributors and readers alike. We welcome your feedback and submissions—any questions or comments about this Issue or future issues may be directed to [fclj@law.gwu.edu](mailto:fclj@law.gwu.edu), and any submissions for publication consideration may be directed to [fcljarticles@law.gwu.edu](mailto:fcljarticles@law.gwu.edu). This Issue and our archive are available at <http://www.fclj.org/>.

Dennis W. Holmes  
*Editor-in-Chief*



# FEDERAL COMMUNICATIONS LAW JOURNAL



VOLUME 65      ISSUE 2

APRIL 2013

*Editor-in-Chief*  
DENNIS HOLMES

*Senior Managing Editor*  
JONATHAN MCCORMACK

*Senior Production Editor*  
JESSICA KRUPKE

*Senior Articles Editor*  
AVONNE BELL

*Senior Notes Editor*  
JOHN COX

*Articles Editors*  
RHONDA ADATO  
ROBERT HOPKINS  
ROBERT VORHEES

*Managing Editors*  
N. JAY MALIK  
KATHERINE MANTHEI  
EMILY SILVEIRO-ALLEN

*Notes Editors*  
ALLARD CHU  
BETSY GOODALL  
JOSHUA KRESH  
CHARLES POLLACK

*Journal Staff*  
KEENAN ADAMCHAK  
ANDREW ERBER  
MATHEW HATFIELD  
EVIN LUONGO  
MELISSA MILCHMAN  
MEREDITH SHELL  
TOM STRUBLE  
CARLA VOIGT  
BEN ANDRES  
ADETOKUNBO FALADE  
ADAM HOTTELL  
JAMI MEVORAH  
CLAYTON PREECE  
MICHAEL SHERLING  
HOLLY TROGDON  
BRANDON WHEATLEY  
JARUCHAT SIRICHOKCHATCHAWAN

JAMES CHAPMAN  
DAVID HATEF  
DARREL JOHN JIMENEZ  
MILENA MIKAILOVA  
SEETA REBBAPRAGADA  
MARY SHIELDS  
MARGOT VANRIEL  
MICHAEL WILLIAMS

*Faculty Advisors*  
PROFESSOR JEROME BARRON      PROFESSOR KAREN THORNTON  
PROFESSOR DAWN NUNZIATO

*Adjunct Faculty Advisors*  
MATTHEW GERST      ETHAN LUCARELLI  
NATALIE ROISMAN      RYAN WALLACH

Published by the GEORGE WASHINGTON UNIVERSITY LAW SCHOOL  
and the FEDERAL COMMUNICATIONS BAR ASSOCIATION

### ***Federal Communications Law Journal***

The Federal Communications Law Journal, the nation's oldest and largest communications law journal, is published jointly by the Federal Communications Bar Association (FCBA) and the George Washington University Law School. The FCLJ is in its sixty-fifth volume of publication (it was not published during World War II), and this is the journal's inaugural year at GW Law.

The FCLJ publishes three issues per year with spine dates of January, April, and June, and features articles and student notes on issues in telecommunications, the First Amendment, broadcasting, telephony, computers, Internet, intellectual property, mass media, privacy, communications and information policymaking, and other related fields. As the official journal of the Federal Communications Bar Association, the FCLJ has over 4,100 subscribers including Association members as well as legal practitioners, industry experts, government officials and academics. Only 25 other law journals in the United States have as many or more subscribers. The FCLJ has the second largest readership of any specialty law journal in the United States.

### ***Federal Communications Bar Association***

The Federal Communications Bar Association (FCBA) is a volunteer organization of attorneys, engineers, consultants, economists, government officials and law students involved in the study, development, interpretation and practice of communications and information technology law and policy. From broadband deployment to broadcast content, from emerging wireless technologies to emergency communications, from spectrum allocations to satellite broadcasting, the FCBA has something to offer nearly everyone involved in the communications industry. That's why the FCBA, more than two thousand members strong, has been the leading organization for communications lawyers and other professionals since 1936.

Through its many professional, social, and educational activities, the FCBA offers its members unique opportunities to interact with their peers and decision-makers in the communications and information technology field, and to keep abreast of significant developments relating to legal, engineering, and policy issues. Through its work with other specialized associations, the FCBA also affords its members opportunities to associate with a broad and diverse cross-section of other professionals in related fields. Although the majority of FCBA members practice in the metropolitan Washington, D.C. area, the FCBA has ten active regional chapters, including: Atlanta, Carolina, Florida, Midwest, New England, New York, Northern California, Pacific Northwest, Rocky Mountain, and Texas. The FCBA has members from across the U.S., its territories and several other countries.

### ***FCBA Officers (2012-13)***

Laura H. Phillips, <i>President</i>	Joseph M. Di Scipio, <i>President-Elect</i>
Robert E. Branson, <i>Secretary</i>	Monica S. Desai, <i>Asst. Secretary</i>
David A. Gross, <i>Treasurer</i>	Christopher J. Wright, <i>Asst. Treasurer</i>

### ***FCBA Executive Committee Members (2012-13)***

Mark W. Brennan	Parul Desai	Kyle D. Dixon
Yaron Dori	Erin L. Dozier	Brooks E. Harlow
Rosemary C. Harold	Julie M. Kearney	Robert Millar
Melissa Newman	Thomas C. Power	Natalie Roisman
Megan Anne Stull		Michele K. Thomas

### ***FCBA Editorial Advisory Board***

Edgar Class	Deborah J. Salons
Lawrence J. Spiwak	Richard K. Welch

### ***The George Washington University Law School***

Established in 1865, the George Washington University Law School is the oldest law school in Washington, DC. The school is accredited by the American Bar Association and is a charter member of the Association of American Law Schools. The Law School is located on the GW campus in the downtown neighborhood familiarly known as Foggy Bottom.

GW Law has one of the largest curricula of any law school in the nation with more than 250 elective courses covering every aspect of legal study. GW Law's home institution, the George Washington University, is a private, nonsectarian institution founded in 1821 by charter of Congress.

The Federal Communications Law Journal (<http://www.fclj.org>) is published by the George Washington University Law School and the Federal Communications Bar Association three times per year. Offices are located at 2029 K St. NW, 4th Floor, Washington DC, 20006. The FCLJ can be reached at [fclj@law.gwu.edu](mailto:fclj@law.gwu.edu), and any submissions for publication consideration may be directed to [fcljarticles@law.gwu.edu](mailto:fcljarticles@law.gwu.edu). Address all correspondence with the FCBA to the Federal Communications Bar Association, 1020 19th St. NW, Suite 325, Washington DC, 20036-6101.

**Subscriptions:** Subscriptions are \$30 per year (domestic), \$40 per year (Canada and Mexico), and \$50 per year (international). Subscriptions are to be paid in US dollars, and are only accepted on a per-volume basis, starting with the first issue. All subscriptions will be automatically renewed unless the subscriber provides timely notice of cancellation. Address changes must be made at least one month before publication date, and please provide the old address or an old mailing label. Please send all requests for address changes or other subscription-related questions to [fclj@law.gwu.edu](mailto:fclj@law.gwu.edu).

**Single and Back Issues:** Each issue of the current volume can be purchased for \$15 (domestic, Canada and Mexico) or \$20 (international), paid in US dollars. Please send all requests for single or back issues to [fclj@law.gwu.edu](mailto:fclj@law.gwu.edu).

**Manuscripts:** The FCLJ invites the submission of unsolicited articles, comments, essays, and book reviews mailed to the office or emailed to [fcljarticles@law.gwu.edu](mailto:fcljarticles@law.gwu.edu). Manuscripts cannot be returned unless a self-addressed, postage-paid envelope is submitted with the manuscript.

**Copyright:** Copyright © 2013 Federal Communications Bar Association. Except as otherwise provided, the author of each article in this issues has granted permission for copies of the article to be made for classroom use, provided that 1) copies are distributed at or below cost, 2) the author and the FCLJ are identified, 3) proper notice of copyright is attached to each copy, and 4) the FCLJ is notified of the use.

**Production:** The citations in the FCLJ conform to the *Bluebook: A Uniform System of Citation* (19th ed., 2010), copyright by the *Columbia, Harvard, and University of Pennsylvania Law Reviews* and the *Yale Law Journal*. Variations exist for purposes of clarity and at the editors' discretion. The FCLJ is printed by Quad/Graphics ([www.qg.com](http://www.qg.com)).

**Citation:** Please cite this issue as 65 FED. COMM. L.J. \_\_\_\_ (2013).

The views expressed in the articles and notes printed herein are not to be regarded as those of the FCLJ, the editors, faculty advisors, the George Washington University Law School, or the Federal Communications Bar Association.

# FEDERAL COMMUNICATIONS LAW JOURNAL

**GW** | LAW



VOLUME 65      ISSUE 2

APRIL 2013

**ARTICLES**

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

By John W. Mayo ..... 119

This article identifies lessons from the past fifty years to develop a foundation for twenty-first century regulatory policy formation. It finds that while the trend toward deregulatory policies over the last 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. Such ideological drivers are ill-suited as a basis for twenty-first century regulation. Nonetheless, when stripped of ideological drivers, it is possible to glean from the historical evolution of regulation a sound basis for twenty-first century regulatory policy. The article specifically describes a set of more subtle regulatory developments and explains how they have generated the most sound regulatory decisions over the past fifty years. Drawing on these developments, the article proposes a regulatory policy framework based upon a set of “results-based principles” that hold the potential to underlie a new, economic welfare-enhancing regulatory framework.

**Uncreative Destruction: The Misguided War on Vertical  
Integration in the Information Economy**

By Brent Skorup & Adam Thierer ..... 157

Are information sectors sufficiently different from other sectors of the economy such that more stringent antitrust standards should be applied to them preemptively? Columbia Law School professor Tim Wu responds in the affirmative in his book *The Master Switch: The Rise and Fall of Information Empires*. Wu proposes preventing vertical mergers in the information economy and the mandatory divestiture of vertically integrated companies. To implement this, Wu proposes a Separations Principle for the information economy, which would segregate information providers into three buckets, which we have labeled information creators, information distributors, and hardware makers.

This article outlines Wu’s separations proposal, explains why his fears regarding vertical relationships should be rejected by regulatory and antitrust policymakers, and illustrates the legal and practical problems his

Separations Principle poses. Wu justifies his Separations Principle by citing monopolies and market power in the information economy. He also advocates using U.S. antitrust authorities to enforce his Principle.

We argue that the antitrust harms he fears are not present, and we highlight scholarship on the accepted benefits of vertically integrated firms. We show that Wu's remedies are policy preferences wrapped in the language of competition law. In fact, the information economy is largely competitive and does not warrant interventionist regulatory enforcement. Since much of American economic vitality flows from the information economy and technology, policymakers should reject a radical antitrust remedy like Wu's preemptive Separations Principle.

## NOTES

### **A New Way to Compromise: An Analysis of the FCC, CTIA and Consumers Union Bill Shock Compromise and its Application to Cramming**

By Matthew Friedman .....203

In October 2011, the Federal Communications Commission (FCC), CTIA – The Wireless Association, and Consumers Union reached a compromise solution to the issue of “bill shock.” The compromise, which the FCC hailed as a win for consumers, requires the wireless industry to provide free alerts to customers approaching their monthly data, text and minute allotments in exchange for the FCC's promise to halt its rulemaking proceeding. However, this paper argues that the compromise is bad policy because the FCC's authority to implement the rules proposed in the *Bill Shock NPRM* is questionable and the compromise is unnecessarily paternalistic, improperly allocates the costs of compliance, will ultimately lead to increased costs for wireless consumers, and inadequately addresses the harms occurring to some wireless consumers. Instead, the FCC should have adopted policies aimed at working with the wireless industry to increase consumer choice and access to information, and narrowly tailored its solutions to demonstrated harms. Finally, this paper contemplates the use of a similar Commission-industry compromise to resolve the issue of wireless “cramming” and advocates such an approach.

### **Data Caps: How ISPs Are Stunting the Growth of Online Video Distributors and What Regulators Can Do About It**

By Jacob Minne .....233

Many high-speed Internet service providers (ISPs) have begun limiting the aggregate data usage of subscribers. These limits, or “data caps,” have received relatively little regulatory, legislative, or media attention compared to net neutrality issues, which have been described by some commentators as setting a “speed limit” for Internet users. But if net neutrality principles will decide the Internet's speed limit, data caps will determine the end user's mileage.



Comcast and other ISPs have attempted to justify data cap programs on two grounds: first, that limiting data usage is necessary for a fair allocation of costs; and second, that limiting data usage will help limit network congestion. However, neither of these justifications survives scrutiny. Not all uses of an ISP's network cost the ISP the same amount. In particular, video providers like Netflix, which make up a plurality of the data received by end-users, create profit centers for many ISPs because Netflix and others pay for the privilege of connecting more directly to customers through "paid peering" arrangements. On the second point, there is no evidence that data caps will ease congestion, and Comcast's own engineers admit that data caps will not affect network congestion.

Instead, the primary benefit of data caps to ISPs is that they allow ISPs to cling to a model of video service subscription that is based on traditional cable- or satellite-based providers. With data caps in place, customers are more likely to only augment, but not to replace, their cable viewing with services like Netflix and Hulu. This unfair use of market power suggests substantial antitrust liability for cable ISPs, and potential liability, under recent FCC regulations, as an unreasonable "network management" practice. Regulators should take action against ISP imposition of data caps, not only for the sake of consumers, but to ensure the continued exponential growth of online communication.



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

John W. Mayo \*

## TABLE OF CONTENTS

I. INTRODUCTION AND OVERVIEW .....	120
II. BACKGROUND: THE EVOLUTION OF REGULATION.....	122
A. <i>The Rise of the Regulation</i> .....	123
B. <i>Stability of the Early Years</i> .....	124
C. <i>Ideological and Intellectual Underpinnings of Deregulation</i> ..	126
D. <i>The Inklings and Promise of Results-Based Regulation</i> .....	133
III. RESULTS-BASED REGULATION: A NEW FRAMEWORK FOR TWENTY-FIRST CENTURY POLICYMAKING .....	136
IV. RESULTS-BASED REGULATORY POLICY: THE CASE OF TELECOMMUNICATIONS.....	145
V. CONCLUSIONS AND CAVEATS .....	154

---

\* Professor of Economics, Business and Public Policy, Georgetown University, McDonough School of Business. Thanks to Severin Borenstein, Bill Bumpers, Mark Burton, Robert Hahn, Michael Katz, Laura Kray, Jeffrey Macher, Dennis Quinn, Ed Soule, Scott Wallsten, Philip Williams, Robert Willig and Glenn Woroch for helpful discussions and comments on earlier versions of this paper. Thanks also to the University of California-Berkeley, Haas School of Business for hosting me while this paper was being written and to the Australian Consumer and Competition Commission Annual Conference in which I received valuable feedback on an earlier draft.

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.<sup>1</sup>

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.”<sup>2</sup> 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.<sup>3</sup> 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.<sup>4</sup> 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

---

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.”<sup>5</sup> 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.<sup>6</sup> 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.<sup>7</sup> 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.<sup>8</sup>

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

---

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](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>.

harmful 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.<sup>9</sup> 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.<sup>10</sup> 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.<sup>11</sup>

---

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.<sup>12</sup> 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.<sup>13</sup>

From the outset of the Republic, the United States' economy has been market-oriented.<sup>14</sup> 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.<sup>15</sup> 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.<sup>16</sup> 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.<sup>17</sup>

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.<sup>18</sup> 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.<sup>19</sup> 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

---

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.<sup>20</sup> Thus, they see the rise of the regulatory state as an efficient response to the state of legal institutions during the late nineteenth century.<sup>21</sup> 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.<sup>22</sup> 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.<sup>23</sup>

### *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.<sup>24</sup> 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.<sup>25</sup> 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.<sup>26</sup> Once these regulations were in place,

---

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> (last 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.<sup>27</sup>

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.<sup>28</sup> During this period, payments between the various legal entities comprising AT&T were mandated under an arcane regulatory system known as “Separations and Settlements.”<sup>29</sup> Specifically, regulators required the firm to split the costs of providing local and long-distance services.<sup>30</sup> This system required uneconomic allocation of the costs to the long-distance sector that were actually associated with creating network access.<sup>31</sup> Prices were then established to recover these costs, which led to artificially high long-distance rates.<sup>32</sup> 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.<sup>33</sup> 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.<sup>34</sup> 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.<sup>35</sup>

---

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,<sup>36</sup> 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.<sup>37</sup> 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.<sup>38</sup> Second, regulatory rules were inviolate.<sup>39</sup> Together, these assumptions resulted in the development of a number of fundamental insights that lie at the heart of regulatory economics today.<sup>40</sup> 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.<sup>41</sup>

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.<sup>42</sup> 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

---

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?

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.<sup>43</sup>

The seminal work of Stigler and Friedland subsequently gave rise to a general economic theory of regulation developed by Stigler, Peltzman, Posner, and Becker.<sup>44</sup> 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.<sup>45</sup> 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.”<sup>46</sup> 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.”<sup>47</sup>

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.<sup>48</sup> 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.<sup>49</sup> 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

---

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.<sup>50</sup> 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.<sup>51</sup> 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.<sup>52</sup>

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.<sup>53</sup> 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.<sup>54</sup> 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.<sup>55</sup>

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

---

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.”<sup>56</sup> This critique and its implications for policy are, of course, not new.<sup>57</sup> 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.”<sup>58</sup> 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.”<sup>59</sup> 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.<sup>60</sup> Stimson’s Mood Index is an indicator of aggregate U.S. public opinion over time.<sup>61</sup> 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.<sup>62</sup> 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.<sup>63</sup> 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. Comm’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.<sup>64</sup>

Stimson's Mood Index of the American people is displayed in Figure 1.<sup>65</sup> Also shown in Figure 1 are major deregulatory events of the past fifty years.<sup>66</sup> 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.

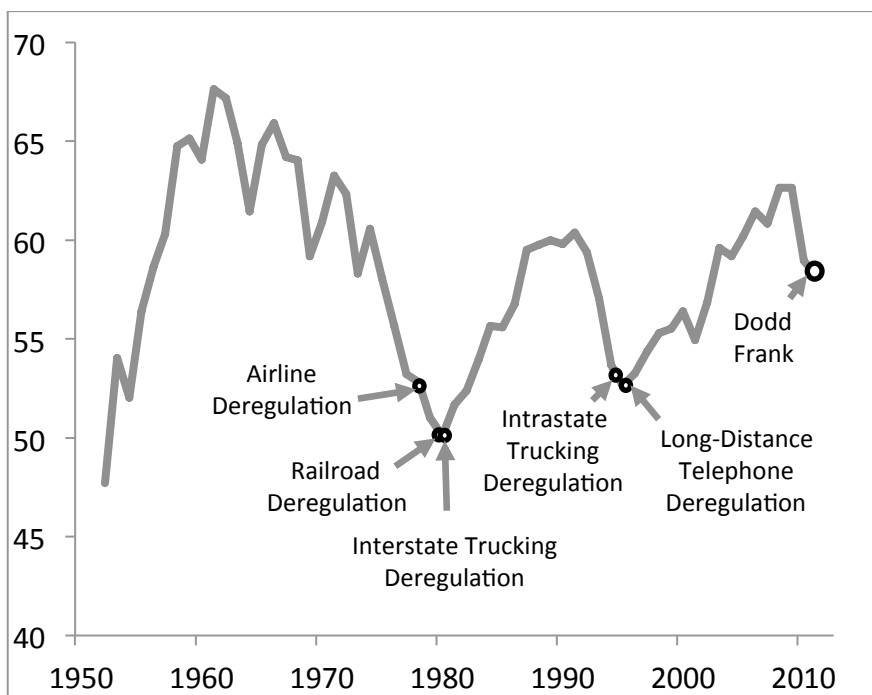


Figure 1: The Ideological Mood of the American People and the Deregulation Movement<sup>67</sup>

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/~coggins/Policy\\_Mood.html](http://www.unc.edu/~coggins/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.<sup>68</sup> Adopted uncritically, this observation has led some to cast aspersions on *any* regulatory governance.<sup>69</sup> 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.<sup>70</sup> Critiques of this “Normative Theory as Positive Analysis” interpretation of the public interest theory have been strident.<sup>71</sup> 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

---

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.<sup>72</sup>

Thus, the ideological swings over the past fifty years—initially toward less governmental involvement in business affairs and more recently toward more governmental involvement<sup>73</sup>—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,<sup>74</sup> 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.

---

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](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.<sup>75</sup> 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.<sup>76</sup> 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.”<sup>77</sup> 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.<sup>78</sup> 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.<sup>79</sup> His empirical analysis led to the conclusion that regulation had the practical consequence of raising rates and harming economic welfare.<sup>80</sup> 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.<sup>81</sup> 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.<sup>82</sup>

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").<sup>83</sup> 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.<sup>84</sup> With that divestiture, AT&T lost any control over the local exchange facilities that were the source of its pre-divestiture monopoly power.<sup>85</sup> 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.<sup>86</sup> 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.<sup>87</sup> 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.<sup>88</sup>

Mathios and Rogers offered the first study to analyze the effects of cross-state differences in long-distance governance mechanisms.<sup>89</sup> Drawing on data from across the states, they created an econometric model of the prices of intrastate long distances services.<sup>90</sup> 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

---

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.<sup>91</sup> 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.<sup>92</sup> 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.”<sup>93</sup> Other studies soon followed that consistently found that deregulation of the long-distance industry led to lower prices.<sup>94</sup> 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.<sup>95</sup>

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.<sup>96</sup> 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.<sup>97</sup> 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.<sup>98</sup> 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.<sup>99</sup> Their results revealed that prices fell in the wake of the deregulation of intrastate trucking.<sup>100</sup> Moreover, by rigorously accounting for changes in market conditions over the period in question, they were

---

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.”<sup>101</sup>

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.<sup>102</sup> 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.”<sup>103</sup> So the question naturally arises: how can we tell if a set of regulatory constraints are “just plain dumb”?<sup>104</sup>

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.

---

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.<sup>105</sup> 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.<sup>106</sup> 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.<sup>107</sup> Again, an ideal construct is unrealistically pitted against the reality of an imperfect governance mechanism.<sup>108</sup> 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

---

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.<sup>109</sup>

**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.<sup>110</sup> 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.<sup>111</sup> Over time, however, technological changes in various parts of these industries significantly have reduced the advantages of scale.<sup>112</sup> For example, electric power can now be efficiently provided at relatively small scale by combined-cycle gas turbines.<sup>113</sup> 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.<sup>114</sup> 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

---

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.<sup>115</sup> Again, the technological changes acted to alter the appropriate market governance mechanism.<sup>116</sup>

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.<sup>117</sup> Both the reach and effectiveness of legal institutions in the nineteenth and early twentieth centuries were suspect.<sup>118</sup> The result was that broader regulatory institutions, rather than private litigation, were meritorious.<sup>119</sup> 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.<sup>120</sup> Direct costs may arise from firms' attempts to comply with overlapping, redundant, and conflicting regulations.<sup>121</sup> These costs have aptly been the target of President Obama's ire.<sup>122</sup> 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.<sup>123</sup> The statutes enabling these agencies provide them with wide-ranging authority to halt "unfair methods of competition,"<sup>124</sup> 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.<sup>125</sup> Similar intrastate consumer and competition protection agencies have arisen over the twentieth century.<sup>126</sup> 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.<sup>127</sup>

*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.<sup>128</sup> That is, lower-ordered animals simply have no capacity to imagine or envision an alternative state of the world.<sup>129</sup> 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.<sup>130</sup> 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.<sup>131</sup>

---

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 Beebe, 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-Hirschman Index (“HHI”), and from this high-level observation draw conclusions regarding the need for heightened regulatory policies.<sup>132</sup> 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,

---

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.<sup>133</sup> 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.<sup>134</sup> 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.<sup>135</sup> 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.<sup>136</sup>

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.<sup>137</sup> 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.<sup>138</sup> 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.<sup>139</sup> The resulting failure of railroads to invest led to

---

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.<sup>140</sup> 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.<sup>141</sup> 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.<sup>142</sup> It also created dramatic incentives for cost reductions that led to rates that were lower than the pre-deregulated rates.<sup>143</sup> 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.”<sup>144</sup> 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.<sup>145</sup> The result was the perpetuation of extremely low local exchange telephone rates.<sup>146</sup> These low rates, however, were not proof of the success of the regulatory mechanism.<sup>147</sup> Indeed, many have pointed to these artificially low rates as evidence of regulatory failures.<sup>148</sup> 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

---

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.<sup>149</sup> 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.<sup>150</sup> 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.<sup>151</sup> 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.<sup>152</sup>

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.<sup>153</sup> This move away from profit as a worthy economic metric developed from both economic research and regulatory practice.<sup>154</sup> Economic criticism of profit as a metric for regulation has been widespread, ranging from charges that profit regulation induces allocative inefficiencies,<sup>155</sup> to charges that profit regulation attenuates incentives for

---

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](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.<sup>156</sup> 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.<sup>157</sup>

#### 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.<sup>158</sup> 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.<sup>159</sup> 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.<sup>160</sup> 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.

---

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](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.<sup>161</sup>

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.<sup>162</sup> 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.<sup>163</sup> 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.<sup>164</sup> 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.<sup>165</sup> Organic growth, mergers, and technological changes have profoundly altered marketplace conditions.<sup>166</sup> Today, policy oversight of the wireless industry continues.<sup>167</sup> To be sure, the wireless industry is not atomistically structured, and mergers among wireless providers have had the effect of adding to market concentration.<sup>168</sup> This has created calls for heavier regulation of the wireless industry to reign in perceived market power that is thought to emanate from that

---

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.<sup>169</sup> Others are quick to reply that the market is robustly competitive and ill-suited as a target of regulation.<sup>170</sup>

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.<sup>171</sup> 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.<sup>172</sup> 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 . . . ."<sup>173</sup> 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.<sup>174</sup>

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

---

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.<sup>175</sup> 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.<sup>176</sup> 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.<sup>177</sup> 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.<sup>178</sup>

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.<sup>179</sup> 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.<sup>180</sup>

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.<sup>181</sup> Competitive

---

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](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](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.<sup>182</sup> 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.<sup>183</sup>

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.<sup>184</sup> 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.<sup>185</sup> 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.<sup>186</sup> 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.<sup>187</sup> In that case, the governance of pricing in that geographic area could more efficiently be provided by a more market-oriented governance mechanism.<sup>188</sup>

The specific mechanism consists of three tiers.<sup>189</sup> In the absence of competitive indicators, a price cap mechanism is retained.<sup>190</sup> “Phase I”

---

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., Commlne, 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](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](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](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.<sup>191</sup> 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.<sup>192</sup> 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.<sup>193</sup>

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.<sup>194</sup> 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.<sup>195</sup>

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.<sup>196</sup> Some have gone so far as to assert that "special access market is an Economics 101 textbook example of a market failure."<sup>197</sup> 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.<sup>198</sup> 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

---

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.<sup>199</sup> 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.<sup>200</sup> Indeed, various economic studies widely criticized the performance of profit regulation in the twentieth century and called for price regulation.<sup>201</sup> 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.<sup>202</sup> Second, the determination of the appropriate price, often

---

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.<sup>203</sup>

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.<sup>204</sup> 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.<sup>205</sup> 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.<sup>206</sup> The competitive protections afforded by the antitrust enforcement agencies can then give comfort that consumer interests are being served under the existing regulatory regime.<sup>207</sup>

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.<sup>208</sup> Due to the large, multijurisdictional nature of special access customers, discounts are typically specified as a percentage off tariffed

---

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\\_spec\\_access\\_mkts\\_jan09-02.pdf](http://nrri.org/pubs/telecommunications/NRRI_spec_access_mkts_jan09-02.pdf).

prices and are by contract rather than by regulatory area.<sup>209</sup> 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.<sup>210</sup> 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.”<sup>211</sup>

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.<sup>212</sup> The result is that the most meaningfully measured prices are in the form of average revenue per unit.<sup>213</sup> In the case of special access, several studies have examined the evolution of these prices over time.<sup>214</sup> In each case, the result-based conclusion is that consumers have benefited by price reductions after implementation of the current market governance mechanism.<sup>215</sup> 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.”<sup>216</sup> Such RBR benchmarks should provide useful input to regulators as they consider the merits of alternative market governance of the special access market.<sup>217</sup>

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

---

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.<sup>218</sup> 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.<sup>219</sup>

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

---

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.<sup>220</sup> 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.<sup>221</sup>

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.<sup>222</sup> 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.<sup>223</sup>

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.”<sup>224</sup> 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.<sup>225</sup>

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.

---

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.<sup>226</sup> 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.



# Uncreative Destruction: The Misguided War on Vertical Integration in the Information Economy

Brent Skorup & Adam Thierer\*

## TABLE OF CONTENTS

I. INTRODUCTION.....	159
II. THE SEPARATIONS PRINCIPLE.....	160
A. <i>The Proposal</i> .....	160
B. <i>A New Spin on an Old Debate</i> .....	161
III. COMPETITION AND VERTICAL INTEGRATION .....	165
A. <i>Benefits of Complements and Tying</i> .....	167
B. <i>Efficiency Benefits</i> .....	170
C. <i>Competition in the Information Economy: Case Studies</i> .....	174
1. AOL-Time Warner.....	174
2. News Corp.-DirecTV .....	176
3. Smartphone Sector .....	176
D. <i>Dynamic, Schumpeterian Change vs. Static Equilibrium</i> <i>Analysis</i> .....	179
E. <i>Openness Concerns</i> .....	183
IV. REAL-WORLD APPLICATION OF THE SEPARATIONS PRINCIPLE .....	186

---

\* Brent Skorup is research director for the Information Economy Project at the George Mason University School of Law. Adam Thierer is a senior research fellow at the Mercatus Center at George Mason University. The authors wish to thank the following individuals for helpful comments on various drafts of the paper: Jerry Brito, Geoff Manne, Richard Williams, Ted Bolema, and two anonymous reviewers.

<i>A. Self-Regulation Norms</i> .....	186
<i>B. Enforcement Challenges Associated with the Separations Principle</i> .....	186
<i>C. Other Considerations Regarding the Wisdom of the Separations Principle</i> .....	191
1. Regulatory Capture .....	191
2. Global Reach and International Competitiveness .....	194
3. Agency Conflicts and Administrative and Due Process Issues .....	195
4. Fifth Amendment Takings Issues .....	197
5. First Amendment Considerations .....	198
V. CONCLUSION .....	200

## I. INTRODUCTION

Are information sectors sufficiently different from other sectors of the economy such that more stringent antitrust standards should be applied to them preemptively? Professor Tim Wu responds in the affirmative in his book, *The Master Switch: The Rise and Fall of Information Empires*.<sup>1</sup> Having successfully pushed net-neutrality regulation into the policy spotlight,<sup>2</sup> Wu turned his attention to what he regards as excessive market concentration and threats to free speech throughout the information economy.<sup>3</sup>

To support his call for increased antitrust intervention, Wu provides a unique view of competition in the information economy that substantially deviates from mainstream antitrust theory.<sup>4</sup> First, Wu contends that “information monopolies” are pervasive in the information economy.<sup>5</sup> Wu’s “monopolists” include Facebook, Apple, Google, and even Twitter.<sup>6</sup> In *The Master Switch* and an article entitled *In the Grip of the New Monopolists*, Wu argues that these so-called monopolies are increasing their market power; requiring more aggressive oversight and regulation.<sup>7</sup>

Second, Wu argues that traditional antitrust analysis is not sufficient for information systems because they carry speech.<sup>8</sup> He claims “[i]nformation industries . . . can never be properly understood as ‘normal’ industries,” and traditional forms of regulation, including antitrust enforcement, “are alone inadequate for the regulation of information industries.”<sup>9</sup> Wu believes that because information industries “traffic in forms of individual expression” they are “fundamental to democracy,” and should, therefore, be subject to greater regulatory treatment.<sup>10</sup>

Third, in contrast to current competition law’s focus on horizontal agreements, Wu desires reinvigorated regulatory enforcement addressing “the corrupting effects of vertically integrated power” in the information sectors.<sup>11</sup> He is particularly concerned about private threats to free speech

---

1. See generally TIM WU, *THE MASTER SWITCH: THE RISE AND FALL OF INFORMATION EMPIRES* (2010) [hereinafter *THE MASTER SWITCH*].

2. See generally Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. TELECOMM. & HIGH TECH. L. 141 (2003).

3. Tim Wu, *In the Grip of the New Monopolists*, WALL ST. J. (Nov. 13, 2010), <http://online.wsj.com/article/SB10001424052748704635704575604993311538482.html>.

4. *Id.*

5. *Id.*

6. *Id.*

7. *Id.* (stating also, incorrectly, that cable operators have a monopoly over broadband Internet service); see also *THE MASTER SWITCH*, *supra* note 1, at 303.

8. *THE MASTER SWITCH*, *supra* note 1, at 303.

9. *Id.* at 301-02, 03.

10. *Id.* at 301-02. This argument may be at odds with the First Amendment, since courts use a higher level of legal scrutiny on media-focused regulations.

11. *Id.* at 307.

arising from such vertical integration.<sup>12</sup> Wu's solution is to prevent vertical mergers in the information economy and mandate divestitures of vertically integrated companies.<sup>13</sup> To implement this, Wu proposes a "Separations Principle" for the information economy which would place information providers into three buckets, which this article has categorized as: information creators, information distributors, and hardware makers.<sup>14</sup>

This article outlines Wu's "Separations Principle," explains why Wu's fears regarding vertical relationships should be rejected by regulatory and antitrust policymakers, and illustrates the legal and practical problems Wu's proposed principle poses. This article also argues that there are widely accepted benefits of vertically integrated firms, and the antitrust harms Wu fears are not present. Further, this article shows that Wu's remedies are really policy preferences cloaked in the language of competition law. In fact, the information economy is largely competitive and does not warrant the interventionist enforcement approach Wu advocates. Since much of American economic vitality flows from the information economy and technology,<sup>15</sup> policymakers should reject a radical antitrust remedy like Wu's preemptive Separations Principle.

## II. THE SEPARATIONS PRINCIPLE

### A. *The Proposal*

In the final chapter of *The Master Switch*, Wu outlines his Separations Principle for the information economy,<sup>16</sup> a framework of industrial organization that, if adopted, would radically expand antitrust enforcement in information technology markets and grant vast new powers to federal regulators.<sup>17</sup> He writes,

---

12. *See id.*

13. *Id.* at 304.

14. *Id.*

15. Studies have linked technological innovation to three-quarters of the U.S. economy's post-World War II growth. *See* ARTI RAI ET AL., U.S. DEP'T OF COMMERCE, PATENT REFORM: UNLEASHING INNOVATION, PROMOTING ECONOMIC GROWTH & PRODUCING HIGH-PAYING JOBS (2010), available at [http://www.commerce.gov/sites/default/files/documents/migrated/Patent\\_Reform-paper.pdf](http://www.commerce.gov/sites/default/files/documents/migrated/Patent_Reform-paper.pdf). Berkeley economist Enrico Moretti estimates "innovation" firms like Apple create five other jobs for every Apple job. *See* Eduardo Porter, *The Promise of Today's Factory Jobs*, N.Y. TIMES (Apr. 3, 2012), <http://www.nytimes.com/2012/04/04/business/economy/the-promise-of-todays-factory-jobs.html>.

16. THE MASTER SWITCH, *supra* note 1, at 299-319.

17. Other scholars have proposed similar structural remedies. Timothy Bresnahan writes,

The computer industry has changed to new modes of competition, which we do not yet fully understand. The determinants of computer industry structure

A Separations Principle would mean the creation of a salutary distance between each of the major functions or layers in the information economy. It would mean that those who develop information, those who own the network infrastructure on which it travels, and those who control the tools or venues of access must be kept apart from one another.<sup>18</sup>

Wu concedes that it is radical to contemplate placing these “constitutional” restrictions on private actors, but says his idea is inspired by a long line of policy reformers, like Justice Brandeis and President Andrew Jackson, who had similar ideas regarding the dangers of market concentration and power.<sup>19</sup> Wu insists that this structural remedy “is not a *regulatory* approach but rather a *constitutional* approach to the information economy” because he models it on the constitutional principle of separation of powers.<sup>20</sup> This is an especially inapt comparison, however, because the Constitution focuses on constraining the powers of government, not businesses. As media historian Paul Starr noted in a review of *The Master Switch*, Wu “doesn’t really mean constitutional in a ‘formal’ sense. Actually, what he means is regulation—he just can’t bring himself to admit it.”<sup>21</sup> It makes little difference how Wu describes his proposal. The practical result of his Separations Principle would be welfare-reducing regulation of the information economy.

### B. *A New Spin on an Old Debate*

Concerns about the benefits and harms of vertical integration were largely resolved decades ago in the economics and antitrust literature. Wu is dissatisfied with the state of competition in the information economy and does not believe that the antitrust agencies—with their focus on social welfare calculations, efficiencies, and horizontal relationships—can prevent the sort of societal and competitive harms about which he is

---

offer . . . excellent opportunities for monopolization . . . . Modest interventions (banning certain clearly anticompetitive practices, for example) will have very small impacts. Only quite substantial interventions (structural ones) are likely to be efficacious.

Timothy Bresnahan, *New Modes of Competition: Implications for the Future Structure of the Computer Industry* 3 (Stanford Inst. for Econ. Policy Research, SIEPR Discussion Paper 500, 1998), available at <http://siepr.stanford.edu/publicationsprofile/1885>. See also Mark A. Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. R. 925, 942 (2001) (“Preserving competition is especially important given how little we know about how the broadband market will develop. The Internet market generally has been characterized by massive shifts in the competitive center.”).

18. THE MASTER SWITCH, *supra* note 1, at 304.

19. *Id.* at 301.

20. *Id.* (emphasis in original).

21. Paul Starr, *The Manichean World of Tim Wu*, AM. PROSPECT, June 9, 2011, at 63.

concerned.<sup>22</sup> Wu disapproves of the economic orthodoxy today that tolerates what he regards as “industrial dominations” and “imperial growth and overreach,”<sup>23</sup>—no doubt referring to the general acceptance in antitrust theory of Chicago School economics,<sup>24</sup> the school of thought that displaced the interventionist Harvard School approach in the 1970s. In the end, marketplace evidence supported Chicago School’s economic analysis relative to the Harvard School’s structural focus.<sup>25</sup> He is troubled by Americans’ “relative indifference to the danger of private power,” the “sanctification of private property,”<sup>26</sup> and the current interpretation and enforcement of antitrust statutes.<sup>27</sup> In Wu’s estimation, Chicago School-style “economic vitality” depends “on the freedom of the economic system to rise and fall, crash and burn.”<sup>28</sup> The problem, Wu says, is that respected economic thought accepts the booms and busts “as intrinsic to the free-market system . . . .”<sup>29</sup> In light of the current state of antitrust enforcement, he says, a radical overhaul of competition law is needed.

Whether intentional or not, Wu’s call for renewed focus on vertical relationships resembles the so-called inhospitality tradition in antitrust, which was characterized by a deep suspicion of vertically integrated firms because they, allegedly, can foreclose entry of competitors and otherwise

---

22. THE MASTER SWITCH, *supra* note 1, at 307.

23. *Id.* at 301-03.

24. See Christopher S. Yoo, *Vertical Integration and Media Regulation in the New Economy*, 19 YALE J. REG. 171, 200-01 (2002). We use “Chicago School” liberally to include the derivative post-Chicago and neo-Chicago iterations, which employ somewhat different antitrust analyses but are all driven by economic analysis and not the structural concerns Wu and the Harvard School emphasized. “If reliance on economics is the sine qua non of the Chicago School, then there is certainly nothing new about either Post-Chicago or Neo-Chicago antitrust analyses. Both embrace economics as the mode of analysis.” Bruce H. Kobayashi & Timothy J. Muris, *Chicago, Post-Chicago, and Beyond: Time to Let Go of the 20th Century*, 78 ANTITRUST L.J. 147, 159 (2012). For more about the Chicago School and its later iterations, see Herbert Hovenkamp, *Post-Chicago Antitrust: A Review and Critique*, 2001 COLUM. BUS. L. REV. 257 (2001).

25. See, e.g., Timothy J. Muris, *Improving the Economic Foundations of Competition Policy*, 12 GEO. MASON L. REV. 1, 10 (2003) (“The [structure-conduct-performance] paradigm was overturned because its empirical support evaporated.”); Timothy J. Muris, *Economics and Antitrust*, 5 GEO. MASON L. REV. 303, 306 (1997) (“Although a majority of antitrust economists and legal scholars prior to [the early 1970s] almost certainly believed that concentration was a major problem, that consensus collapsed.”).

26. THE MASTER SWITCH, *supra* note 1, at 300.

27. See, e.g., Robert H. Lande, *Chicago’s False Foundation: Wealth Transfers (Not Just Efficiency) Should Guide Antitrust*, 58 ANTITRUST L.J. 631, 632 (1989) (asserting a nontraditional understanding of the primary purpose of antitrust laws); Elbert L. Robertson, *A Corrective Justice Theory of Antitrust Regulation*, 49 CATH. U. L. REV. 741, 741 (2000) (proposing a theoretical alternative to dominant and conventional economic, efficiency-based theories); Barbara A. White, *Black and White Thinking in the Gray Areas of Antitrust: The Dismantling of Vertical Restraints Regulation*, 60 GEO. WASH. L. REV. 1, 1-2 (1991) (commenting on the incursion of modern efficiency analysis on the Supreme Court’s antitrust posture).

28. THE MASTER SWITCH, *supra* note 1, at 301.

29. *Id.*

harm competition.<sup>30</sup> During that era, decades ago, antitrust policy was designed, in the words of a federal court of appeals, to “perpetuate and preserve, for its own sake and in spite of possible cost, an organization of industry in small units which can effectively compete with each other.”<sup>31</sup> The Chicago School and the rise of transaction cost economics, however, revolutionized economists’ interpretation of non-standard contracts and ultimately replaced the inhospitality tradition in the late 1970s.<sup>32</sup>

Consequently, current economic thinking has a greater appreciation for the benefits of vertical integration in promoting inter-brand competition and innovation in distribution, and courts applying the antitrust laws have generally been persuaded by this approach. With surprising frankness, Wu rejects the modern approach and argues that “what was understood in the 1970s, and what needs to be understood again, is the role of . . . restrictions in preserving both the free market of goods and services and the free market of ideas.”<sup>33</sup>

Wu’s central contention in the book is that U.S. industrial structure determines the limits of free speech.<sup>34</sup> The information economy comprises the “speech industry,” he says, and since speech is carried on privately owned platforms he worries that private actors will limit free speech.<sup>35</sup> Like

30. Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 4-99 (1984) (describing the inhospitality tradition); Yoo, *supra* note 24, at 186-87 (recalling the dominance of the leverage theory of vertical integration that became orthodoxy in the courts); Oliver Williamson, *Antitrust Enforcement: Where It’s Been, Where It’s Going*, 27 ST. LOUIS U. L.J. 289, 289-92 (1983) (describing the adoption of entry barrier arguments by the courts); *see generally* Leonard W. Weiss, *The Structure-Conduct-Performance Paradigm and Antitrust*, 127 U. PA. L. REV. 1104, 1105 (1979) (warning of non-competitive structure and conduct).

31. *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 429 (2d Cir. 1945). For an argument for the return to pre-Chicago School enforcement in light of 1990s media mergers, *see* Patrick Cox, *What Goes up Must Come Down: Grounding the Dizzying Height of Vertical Mergers in the Entertainment Industry*, 25 HOFSTRA L. REV. 261, 312-13 (1996).

32. *See* Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925, 932 (1979) (noting that the predominant law and economics paradigm is the Chicago School analysis); *see also* ROBERT H. BORK, *THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF*, at xi (1st ed. 1978) (“The primary characteristics of the Chicago School of antitrust are two. The first is the insistence that the exclusive goal of antitrust adjudication, the sole consideration the judge must bear in mind, is the maximization of consumer welfare. The judge must not weight against consumer welfare any other goal, such as the supposed social benefits of preserving small businesses against superior efficiency. Second, the Chicagoans applied economic analysis more rigorously than was common at the time to test the propositions of the law and to understand the impact of business behavior on consumer welfare.”); Edwin J. Hughes, *The Left Side of Antitrust: What Fairness Means and Why It Matters*, 77 MARQ. L. REV. 265, 271 (“By . . . 1980, the Supreme Court’s antitrust jurisprudence of the 1960s was widely considered to be intellectually bankrupt.”).

33. THE MASTER SWITCH, *supra* note 1, at 310.

34. *Id.* at 121.

35. *Id.* at 122-23.

his mentor, Harvard University law professor Lawrence Lessig,<sup>36</sup> Wu seems to accept that he cannot displace the dominant role of Chicago School doctrine in modern antitrust law and its acceptance in the federal courts, so he attempts to highlight a compelling reason for intervention into the information economy.<sup>37</sup> That compelling reason is the unique role of speech in an effective democracy.

Antitrust practice today, Wu says, is unsuitable for the information economy since speech is so intertwined.<sup>38</sup> He says information industries, which carry speech, are just different from “normal” commodity industries.<sup>39</sup> These industries are fundamental to democracy and the efficiencies and utility with which antitrust concerns itself misses the bigger picture.<sup>40</sup> Behind every political revolution or genocide is not “orange juice, heating oil, [or] running shoes,” but a partnership with mass media.<sup>41</sup> Wu suggests that without a Separations Principle, vertically integrated firms in the information economy will be tempted to engage in damaging private censorship like the film industry did in earlier decades.<sup>42</sup> Immediate action is needed, he says, because “by the FCC’s own

36. See generally LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE 3 (Basic Books 1999) (expressing the idea that computer code may regulate conduct in much the same way that legal code does); Lawrence Lessig, *The New Chicago School*, 27 J. LEGAL STUD. 661, 665 (1998) (explaining that the Old Chicago School diminishes the significance of the law in regulation); Mark A. Lemley & Lawrence Lessig, *The End of End-to-End: Preserving the Architecture of the Internet in the Broadband Era*, 48 UCLA L. REV. 925, 928 (2001) (addressing the question of “open access” and its relationship to the architecture of the Internet).

37. THE MASTER SWITCH, *supra* note 1, at 308-19.

38. THE MASTER SWITCH, *supra* note 1, at 303-04 (noting that antitrust “laws alone are inadequate for the regulation of information industries . . . [T]here is the problem of taking an after-the-fact approach to a commodity so vital to our basic liberties: a framework that has worked well enough for oil and aluminum is ultimately unsuited to an industry whose substrate is speech.”).

39. *Id.* at 301-02.

40. *Id.* at 302-03.

41. *Id.* at 302. Presumably to strengthen the moral urgency for his recommendations, Wu frequently compares dominant American firms to authoritarian regimes. He draws a parallel between Ford’s mass production of the automobile and Joseph Goebbels’ desire to control radio. *Id.* at 13. He writes, “[A]llying itself with the state, a dominant industrial force can turn a potentially destructive technology into a tool for perpetuating domination and delaying death.” *Id.* at 28. He asserts, AT&T’s “power . . . over American culture and communications [was] . . . comparable in structure only to what the fascist and Communist regimes in Europe were creating.” *Id.* at 79-80. He compares the consolidation of the American broadcast radio industry in the 1930s to the concurrent efforts of the Nazis to centralize radio. *Id.* at 84-85. He compares the Film Trust’s alliance to the alliance between Trotsky and Stalin, *id.* at 89, and he compares Harry Tuttle’s fight against AT&T to a Robert De Niro character’s fight against a totalitarian state, *id.* at 114. He describes how Catholics and the film industry for decades “practice[d] . . . a censorship to rival that of any authoritarian regime.” *Id.* at 116-19.

42. *Id.* at 305-06.



reckoning, the cable companies will soon enjoy an uncontested monopoly over broadband Internet in much of the United States.”<sup>43</sup>

Adoption of the Separations Principle means both the dissolution of existing vertically integrated media entities and the prevention of future mergers that would result in vertical market power.<sup>44</sup> To implement the Separations Principle, Wu proposes three complementary responses. First, the Federal Communications Commission (“FCC”) will be the primary enforcer of these vertical separations. The FCC, he says, currently has the authority to block mergers and compel divestitures in accordance with the Separations Principle and should act immediately to prevent further harms.<sup>45</sup> Wu is not convinced that the FCC could perpetually play neutral umpire in this role, however, and fears industry capture or influence, which leads to his second proposed response.<sup>46</sup> Should the FCC fail at preventing a merger across categories or fail to enforce separations, the antitrust agencies—the Federal Trade Commission (“FTC”) and the Department of Justice (“DOJ”) Antitrust Division—will need to step in.<sup>47</sup> Even then, Wu says, it would be difficult to force this regime on an unwilling industry. He hopes industry players would adopt norms of openness and compliance; only then could the Separations Principle achieve its objectives.<sup>48</sup> Wu’s justification for the Separations Principle is that eliminating vertical integration would prevent “one layer from smothering the others.”<sup>49</sup> This is a more traditional competition rationale for antitrust and other forms of regulation. We address this concern in section III.

### III. COMPETITION AND VERTICAL INTEGRATION

Under current antitrust law, vertical restraints and integration are very rarely determined to be illegal per se.<sup>50</sup> Relative to the inhospitality era, vertical mergers are infrequently blocked and concerns about vertical merger consequences have been “essentially forgotten,” according to two

---

43. *Id.* at 302.

44. *Id.* at 311.

45. *Id.* at 311-12. The FCC has the authority to review license transfers but should not be able to block transactions because of antitrust concerns. See Comments of Geoffrey A. Manne, Exec. Dir. of Int’l Ctr. for Law and Econ. & Berin Szoka, President of TechFreedom, *App’n of Cellco P’ship d/b/a Verizon Wireless and SpectrumCo LLC for Consent to Assign Licenses*, FCC WT Docket No. 12-4 (rel. Mar. 26, 2012), available at [http://techfreedom.org/sites/default/files/VZ\\_SpectrumCo\\_filing\\_0.pdf](http://techfreedom.org/sites/default/files/VZ_SpectrumCo_filing_0.pdf).

46. THE MASTER SWITCH, *supra* note 1, at 311.

47. *Id.* at 312.

48. *Id.* at 313.

49. *Id.* at 306.

50. See Frank H. Easterbrook, *Vertical Arrangements and the Rule of Reason*, 53 ANTITRUST L.J. 135, 143 (1984). Since 2007, all vertical restraints are analyzed under the rule of reason and are not per se antitrust violations. See *Leegin Creative Leather Prods. v. PSKS, Inc.*, 551 U.S. 877, 907 (2007) (overturning a 96-year old precedent prohibiting vertical retail price maintenance).

reviewers of the vertical integration literature.<sup>51</sup> Firms using vertical restraints and integration are constrained by competition from other producers,<sup>52</sup> and vertical arrangements can increase interbrand competition.<sup>53</sup> Further, because of the ambiguous welfare effects of this type of integration and the costs of disintegration, structural separation of vertically integrated firms is a rarely used remedy in antitrust.<sup>54</sup> Wu accepts that his Separations Principle sacrifices some of the benefits of industry concentration and that this will reduce some social welfare.<sup>55</sup> He suggests these sacrifices are worth it to gain new forms of speech and the technical innovation that would otherwise be excluded for the sake of “perfection and empire.”<sup>56</sup>

Many readers may be puzzled that Wu recommends such a drastic shift in industrial organization policy in the information industries. By Wu’s own account, we “live in what is in some ways an informational golden age. Television, the Internet, film, and mobile devices each force one another to become better.”<sup>57</sup> Why, then, break up some of the most innovative companies in the world after they have brought us this golden age? The reason, he says, lies in foreseeable and probable future risks. The convergence of all media channels into a single distribution platform—the Internet—makes the entire system imminently at risk of “a new imperial age.”<sup>58</sup> He lists possible controllers of the master switch: NBCU-Comcast; AT&T; Apple; and maybe Google.<sup>59</sup> Because we cannot know which firm will seize the switch, Wu’s final chapter argues, we must compel separations of these firms before it is too late.

Aside from its speculative nature, the economics of industrial organization do not portend a likelihood of a single owner of the Internet. Underlying Wu’s concern is the concentration of private power and the ability of vertically integrated firms to exclude existing competitors, new rivals, and technological innovations that might displace incumbents.

---

51. Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. ECON. LITERATURE 629, 662 (2007). Vertical integration is now lawful, for instance, even when a monopolist content producer (like a newspaper) integrates into distribution or refuses to deal with a distributor. *E.g.*, *Paschall v. Kansas City Star Co.*, 727 F.2d 692, 704 (8th Cir. 1984) (en banc) (holding that “[it is not] unlawful *per se* for a monopolist to unilaterally refuse to deal with a former distributor or to vertically integrate”). Most vertical arrangements are subject to rule of reason analysis by courts; that is, firms cannot have unreasonable vertical restraints that harm competition.

52. See Alan J. Meese, *Reframing Antitrust in Light of Scientific Revolution: Accounting for Transaction Costs in Rule of Reason Analysis*, 62 HASTINGS L.J. 457, 468, n.41 (2010).

53. See *id.* at 507-09.

54. See Robert W. Crandall, *The Failure of Structural Remedies in Sherman Act Monopolization Cases*, 80 OR. L. REV. 109, 197-98 (2001).

55. THE MASTER SWITCH, *supra* note 1, at 305.

56. *Id.*

57. *Id.* at 317.

58. *Id.* at 318.

59. *Id.*

Antitrust is a form of common law and subject to change,<sup>60</sup> so it is worthwhile to examine this new challenge to the prevailing enforcement norms should Wu's proposal gain traction. This section argues that these fears are not supported by economic evidence. The information economy is competitive and firms have incentives to open their platforms to horizontal and vertical complements, but there are also efficiency benefits available to vertically integrated firms. We make the case that it would be a mistake to sacrifice the substantial competitive and efficiency benefits present in vertical integration to prevent the speculative future harms to competition and, by extension, free speech.

### A. *Benefits of Complements and Tying*

Here we consider the vertical arrangements between information creators and information hardware makers (buckets one and three under Wu's scheme). Wu's fears stem from the ability of firms to exclude rivals or speech. Since the rise of the Chicago School in the 1970s, antitrust scholars generally have been skeptical of these sorts of claims about vertical integration because a firm should normally have incentives to deal reasonably with providers of complementary applications.<sup>61</sup> Engaging in behavior that discriminates against complements often devalues the platform,<sup>62</sup> and this is true in the information economy. That firms internalize complementary externalities does not mean platform proprietors will never favor their own affiliates<sup>63</sup> (an issue to which Wu is sensitive, given his views on net neutrality). It does mean, however, that platform proprietors generally do not have an economic incentive to exclude competitors in ways that distort competition and harm consumers. Since firms can sometimes lower transaction costs by replacing a competitor's complement with their own product, lower costs and greater convenience can be passed on to consumers.<sup>64</sup> Favoring affiliates, then, can increase consumer welfare compared to bargaining with an independent firm or competitor.

---

60. Easterbrook, *supra* note 50, at 136-38.

61. Jonathan E. Neuchterlein, *Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality Debate*, 7 J. TELECOMM. & HIGH TECH. L. 19, 40-41 (2009); see also Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 17 HARV. J.L. & TECH. 85, 87 (2003).

62. Neuchterlein, *supra* note 61, at 41.

63. *Id.*

64. These lower costs could arise by reducing hold up costs associated with pairing one's product with a competitor's, see Lafontaine & Slade, *supra* note 51, at 649, or perhaps through elimination of packaging costs or some other reduction in marginal costs. These efficiencies are accepted as existing but are difficult to document. David S. Evans & Michael Salinger, *Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law*, 22 YALE J. REG. 37, 83-84 (2005). See also Ronald H. Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937).

Wu cites an example where Apple was forced to decide whether to permit a complementary service or exclude it, but he mischaracterizes the reason Apple decided to permit a competing service.<sup>65</sup> While Skype does compete directly with Apple's FaceTime, Apple's decision not to prohibit Skype on its phones is consistent with profit-maximizing behavior. Since discriminating against complements often devalues the platform, it is at best incomplete for Wu to say that Apple allowed Skype on its iPhone because Apple was abiding by powerful tech norms that discourage blocking applications ("apps").<sup>66</sup> While norms might discourage firms from blocking apps from competitors, those norms are always present and do not explain why Apple allows Skype but prohibits other competing services on its phones. This selective discrimination by Apple is consistent with profit-maximizing behavior because sometimes exclusion will devalue a platform (here, the iPhone) and sometimes exclusion will actually increase a platform's value to consumers. Skype is a popular voice-over internet protocol ("VoIP") application with over 600 million users.<sup>67</sup> Apple is infamous for its heavy-handed policies toward third-party apps,<sup>68</sup> but blocking Skype would devalue the iPhone to users, millions of whom prefer Skype to other VoIP apps.<sup>69</sup> The decision to include or exclude competitors on a firm's platform is a complex business decision with many variables; exclusionary incentives are often counterbalanced by a potential devaluation of the platform, and even where exclusion occurs, the resulting vertically integrated platform will approximate what competitors offer to attract consumers.

Wu also condemns what would be called *tying* or vertical foreclosure arrangements in antitrust:

But even if invisible to many consumers, the inescapable reality is that these machines [Apple's iPod, iPhone, and iPad]

---

65. THE MASTER SWITCH, *supra* note 1, at 314.

66. *Id.* at 313-14.

67. See Tehseen Baweja, *With 663 Million Registered Users, Skype Earned \$860 Million Last Year*, TECHIE BUZZ (Mar. 7, 2011), <http://techie-buzz.com/tech-news/with-663-million-registered-users-skype-earned-860-million-last-year.html>.

68. Stuart Dredge, *Steve Jobs Resisted Third-Party Apps on iPhone, Biography Reveals*, GUARDIAN (Oct. 24, 2011), <http://www.guardian.co.uk/technology/appsblog/2011/oct/24/steve-jobs-apps-iphone>.

69. For similar reasons, Apple makes Google Maps apps available in its online store, despite the fact that Maps competes with Apple's iOS 6 maps application. The ongoing relationship between Apple iOS and Google Maps is illuminating. Google Maps was available as a third-party app for years on iPhones but Apple removed the Maps app in fall 2012 with the release of iOS 6. Michael Grothaus, *Google sources think maps app might struggle for Apple approval*, GUARDIAN (Nov. 5, 2012), <http://www.guardian.co.uk/technology/2012/nov/05/google-maps-doubt-iphone>. Months later, partly in response to consumer outrage, Apple permitted Maps as an iOS app. Joanna Stern, *Google Maps App for iPhone Released With Turn-by-Turn Navigation, Transit Directions and Street View*, ABC NEWS (Dec. 13, 2012), <http://abcnews.go.com/Technology/google-maps-app-iphone-released-turn-turn-navigation/story?id=17952434>.

are closed in a way the personal computer never was . . . [A]ll innovation and functionality are ultimately subject to Apple's veto, making these devices antithetical to the Apple II and all the hardware development it inspired.<sup>70</sup>

In common technology parlance these are the so-called walled gardens, which refer to firms inhibiting interoperability with downstream products. Apple's iPhones, for instance, are sold with free iCloud storage and Siri voice recognition features, to the exclusion of rival offerings. Likewise, Google Android smartphones use Google's search engine and other Google services and apps by default. While section 3 of the Clayton Act could be interpreted to prohibit these sorts of tying arrangements,<sup>71</sup> antitrust scholar Herbert Hovenkamp notes that "most economists and others interested in antitrust law believe [tying] is rarely competitively harmful."<sup>72</sup> For one, tying may reduce the costs of information and oversearching,<sup>73</sup> and that seems to be the primary competitive advantage of walled gardens. Much of Apple devices' popularity seems to arise from these informational benefits.<sup>74</sup> The Apple brand connotes a certain quality to consumers—the product will be sleek, intuitive to use, and relatively free of software vulnerabilities to viruses and trojans. Apple products have gained this beneficial reputation precisely because it has a closed system that ties apps to Apple devices.<sup>75</sup> Much of the iPhone's success is because it meshes so well with the downstream tied services. Competitors in the mobile operating system and handset markets are not as popular, in part, because they have not leveraged the competitive benefits of vertically closed systems.<sup>76</sup>

---

70. See THE MASTER SWITCH, *supra* note 1, at 291-93.

71. See 15 U.S.C. § 14 (2006).

72. HERBERT HOVENKAMP, CLAYTON ACT (1914): AN ENTRY FROM MACMILLIAN REFERENCE USA'S MAJOR ACTS OF CONGRESS 123, 125 (Brian K. Landsberg ed., 2003).

73. See Roy W. Kenney & Benjamin Klein, *The Economics of Block Booking*, 26 J.L. & ECON. 497, 501 (1983).

74. These informational attributes parallel what Paul Joskow calls intangible assets. Paul L. Joskow, *Vertical Integration*, in HANDBOOK OF NEW INSTITUTIONAL ECONOMICS 2005, at 328, 349-50 (Claude Ménard & Mary M. Shirley eds., 2005).

75. Matt Burns, *The Decline of Android Foretells the Rise of a Total Apple Monopoly*, TECH CRUNCH (Apr. 26, 2012), <http://techcrunch.com/2012/04/26/apple-will-one-day-rule-the-world/> ("Apple's success is made possible by keeping things simple . . . Steve Jobs and Co. correctly identified that the average consumer doesn't care about specs but rather capabilities.").

76. See *id.* (arguing that "[t]he vast fragmentation in the hardware [handset market] causes apps to be very inconsistent in quality."); see Christina Bonnington, *Why iOS Apps Look Better than Android Apps*, GIZMODO (Apr. 30, 2012), <http://gizmodo.com/5906328/why-ios-apps-look-better-than-android-apps> (arguing that "[w]hen coding for iOS, developers deal with a very limited number of screen resolutions and hardware profiles. But when coding for Android, developers have to resolve a virtually limitless set of device parameters."). Competitors are catching on, however. Firms in the e-reader and tablet

Firms do have incentives to allow competing services on their systems. Whether a firm will allow competing services requires a careful balancing. The fact that consumers flock to closed devices like the iPhone, iPad, and Amazon Kindle, knowing full well these devices are tied to upstream apps and services, is a powerful indictment of Wu's position that proprietary systems harm consumers. By all indications, consumer welfare is enhanced by these firms reducing costly searches and other informational impediments through vertical arrangements. Dissolving a firm that possesses both information creation and hardware abilities—as the Separations Principle mandates<sup>77</sup>—would eliminate these types of pro-consumer and pro-competitive tying arrangements.

### B. Efficiency Benefits

Now we consider vertical arrangements between information creators, who produce audio and visual content, and information distributors, like wireline and wireless networks (buckets one and two in Wu's scheme). These sorts of mergers are rarer when compared to combinations involving information creators and hardware makers, but the efficiencies provided by these mergers are also understood. Today it is accepted that vertical integrations involving networks and content are often motivated by firms seeking substantial efficiencies.<sup>78</sup> In contrast to the antitrust doctrines that prevailed in the middle of the 20th century—doctrines Herbert Hovenkamp characterized as “unreasonably hostile” to vertical mergers<sup>79</sup>—antitrust officials today recognize that vertical integration of the factors of production often result in pro-competitive efficiencies.<sup>80</sup> In many instances, firms will acquire upstream or downstream complements because merging allows the firm to avoid the costs of negotiating with upstream and downstream firms for access to complementary goods.

Firms achieve efficiencies by integrating vertically since nonintegrated firms are frequently subject to opportunistic behavior from upstream or downstream companies;<sup>81</sup> this is particularly true in industries with rapid technology change.<sup>82</sup> Opportunism and hold-up occur because

---

markets have taken notice, and we will likely see more of these vertical tying agreements in the future.

77. See THE MASTER SWITCH, *supra* note 1, at 304.

78. Farrell & Weiser, *supra* note 61, at 97.

79. Herbert Hovenkamp, *The Law of Vertical Integration and the Business Firm: 1880–1960*, 95 IOWA L. REV. 863, 876 (2010).

80. See Lafontaine & Slade, *supra* note 51 *passim*.

81. Paul L. Joskow, *Vertical Integration*, in 1 ABA SECTION OF ANTITRUST LAW, ISSUES IN COMPETITION LAW AND POLICY 273, 287 (2008); Oliver Williamson, *Transaction Costs Economics: The Governance of Contractual Relations*, 22 J.L. & ECON. 233, 245-46 (1979).

82. Robert W. Crandall, *The Remedy for the “Bottleneck Monopoly” in Telecom: Isolate It, Share It, or Ignore It?*, 72 U. CHI. L. REV. 3, 23 (2005).

all bilateral contracts are incomplete and can result in ex post bargaining and contractual performance problems.<sup>83</sup> Economist Ronald H. Coase discussed this problem as it relates to manufacturers: if a car manufacturer makes large capital investments in a manufacturing plant, it may be subject to opportunism by a specialized distributor who knows the manufacturer risks having new but unused equipment if the distributor does not reach an agreement with it.<sup>84</sup> Even the mere threat of hold-up by the supplier can coerce a manufacturing firm into lowering its price to average variable cost, and this risk often harms consumers since the firm “would have to cover this cost, by passing it on to its purchaser as part of the price of inputs.”<sup>85</sup>

These hold-up threats are common in the information economy because firms typically own specialized assets, like television programming, advertisement deals, and programming bundles that are prone to hold-up.<sup>86</sup> To avoid these contracting issues, firms explore alternative governance arrangements—like backwards merger—to prevent ex post rent extraction.<sup>87</sup> Hold-up problems have made the video-distribution industry particularly volatile and competitive in recent years. In addition to high-profile disputes like DirecTV-Viacom, where 20 million satellite subscribers lost twenty-six Viacom-owned channels for over a week when the two companies could not agree,<sup>88</sup> Netflix lost its access to content from the Starz network after refusing to feature tiered pricing for this content.<sup>89</sup> In addition, other studios and content providers have raised prices for Netflix to access and use their content as a response to Netflix’s success.<sup>90</sup> Price increases from its content suppliers have induced Netflix to

---

83. Joskow, *supra* note 81 at 285; Benjamin Klein et al., *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297, 297-98 (1978).

84. See Alan J. Meese, *Reframing Antitrust In Light of Scientific Revolution: Accounting for Transaction Costs in Rule of Reason Analysis*, 62 HASTINGS L.J. 457, 497 (2010).

85. *Id.*

86. See Farrell & Weiser, *supra* note 61, at 98; Klein et al., *supra* note 83, at 298-99.

87. See Joskow, *supra* note 81 at 274, 280, 287. Integration may also prevent problems with promotional incentives that contracting parties may remedy with resale price maintenance. Benjamin Klein, *Competitive Resale Price Maintenance in the Absence of Free Riding*, 76 ANTITRUST L.J. 431, 437, 456 (2009).

88. *Viacom, DirecTV Reach Deal, End Blackout*, CHI. TRIB. (July 20, 2012), [http://articles.chicagotribune.com/2012-07-20/business/chi-viacom-directv-reach-deal-end-blackout-20120720\\_1\\_derek-chang-directv-dispute-directv-customers](http://articles.chicagotribune.com/2012-07-20/business/chi-viacom-directv-reach-deal-end-blackout-20120720_1_derek-chang-directv-dispute-directv-customers).

89. Tim Carmody, *How the Starz-Netflix Divorce Will Remake Video*, WIRED (Sept. 2, 2011, 3:13 PM), <http://www.wired.com/epicenter/2011/09/starz-netflix-divorce/all/1>.

90. See Brian Stelter, *Once Film-Focused, Netflix Transitions to TV Shows*, N.Y. TIMES (Feb. 27, 2012), <http://www.nytimes.com/2012/02/28/business/media/once-film-focused-netflix-shifts-to-tv-shows.html> (“The pivot to TV reruns was necessitated in part by the tightening of the movie spigot by major movie studios. Fearing that Netflix might grow too popular or powerful, the studios ‘have decided to dramatically raise prices’ for films and shows.”).

enter the content production market, and it is now being said that Netflix resembles a nascent version of premium-content provider HBO<sup>91</sup> (a development that would be, as one commentator said, “Hollywood’s worst nightmare”<sup>92</sup>).

Additionally, Hulu, which mostly features streaming of network television shows, is also now offering several original scripted series. Indicative of its growing competitive threat to the traditional video distributors upon which Hulu depends for content, Hulu recently sat down with advertisers to pitch programming—a ritual typically reserved only for cable channels and network broadcasters.<sup>93</sup> Netflix’s and Hulu’s production of their own content means they can now bargain harder with studios that seek to raise their prices to distributors.<sup>94</sup> In addition to the actions by Netflix and Hulu, Amazon is now creating original book (Amazon Publishing)<sup>95</sup> and video content (Amazon Studios).<sup>96</sup> By backwards integrating and creating their own content, these firms are preventing the studios from holding them hostage, and they can negotiate lower prices in licensing deals which benefits consumers. These sorts of business models are exactly what antitrust scholarship predicts when firms face hold-up problems from suppliers of an input. “To avoid this transaction cost, the [firm] might integrate backwards, taking on the manufacturing process itself, thereby avoiding a transaction, eliminating the prospect of opportunism, and minimizing the cost of obtaining the input.”<sup>97</sup>

Under a separations regime in which vertical integration across platforms is prohibited, however, distributors would be prevented from entering the content market. Vertical divestiture would prevent practices that are present in competitive markets like these, and would prevent the resulting price competition. Market developments like those discussed are why current antitrust doctrine “still generally presumes that vertical agreements, vertical extension, and vertical mergers are unobjectionable unless a fact-intensive investigation shows otherwise.”<sup>98</sup> A per se Separations Principle would adversely affect these welfare-increasing

---

91. See Yinka Adegoke & Lisa Richwine, *Netflix in Talks for Cable Partnership*, REUTERS (Mar. 6, 2012, 6:03 PM), <http://www.reuters.com/article/2012/03/06/us-netflix-cable-idUSTRE8251U520120306>; see also Stelter, *supra* note 90.

92. Shira Ovide, *Netflix: Hollywood’s Worst Nightmare*, WALL ST. J. (Mar. 16, 2011, 9:03 AM), <http://blogs.wsj.com/deals/2011/03/16/netflix-hollywoods-worst-nightmare>.

93. Amy Chozick & Brian Stelter, *An Online TV Site Grows Up*, N.Y. TIMES (Apr. 16, 2012), <http://www.nytimes.com/2012/04/17/business/media/hulu-the-online-tv-site-adds-original-programming.html>.

94. See Ovide, *supra* note 92.

95. *Amazon Publishing*, AMAZON, <http://www.amazon.com/gp/feature.html?docId=1000664761> (last visited Nov. 17, 2012).

96. *Amazon Studios*, AMAZON, <http://studios.amazon.com> (last visited Nov. 17, 2012).

97. Alan J. Meese, *Reframing Antitrust In Light of Scientific Revolution*, 62 HASTINGS L.J. 457, 497 (2010).

98. Joseph A. Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies*, 17 HARV. J.L. & TECH. 86, 87 (2003).



transactions since, as Robert Bork has noted, “[f]ragmentation for its own sake confers no clear gain, and it makes economic processes more costly.”<sup>99</sup>

The overwhelming conclusion from economists and scholars who have looked at vertical relationships is that the vertical relationships Wu condemns tend to be benign or beneficial to consumers.<sup>100</sup> Bork notes “[v]ertical mergers are means of creating efficiency, not of injuring competition.”<sup>101</sup> Francine Lafontaine and Margaret Slade’s 2007 survey of dozens of economics papers that examine the welfare effects of vertical integration makes a compelling case for this proposition.<sup>102</sup> The authors conclude that “vertical-merger policy should be de minim[is], if it exists at all. After all, both firms and consumers can benefit when firms realize efficiencies.”<sup>103</sup> The empirical evidence shows that:

Under most circumstances, profit maximizing vertical-integration decisions are efficient, not just from the firms’ but also from the consumers’ points of view. Although there are isolated studies that contradict this claim, the vast majority support it. Moreover, even in industries that are highly concentrated so that horizontal considerations assume substantial importance, the net effect of vertical integration appears to be positive in many instances. We therefore conclude that, faced with a vertical arrangement, the burden of evidence should be placed on competition authorities to demonstrate that that arrangement is harmful before the practice is attacked. Furthermore, we have found clear evidence that restrictions on vertical integration that are imposed . . . are usually detrimental to consumers. Given the weight of the evidence, it behooves government agencies to reconsider the validity of such restrictions.<sup>104</sup>

This literature survey is especially relevant here since it reviews several studies examining cable TV and film distribution integrations—the types of

---

99. BORK, *supra* note 32, at 55..

100. See Bruce M. Owen, *Antitrust and Vertical Integration in “New Economy” Industries*, 38 REV. INDUST. ORG. 363, 381. (“Empirical evidence that vertical integration or vertical restraints are harmful is weak, compared to evidence that vertical integration is beneficial—again, even in cases where market power appears to be present. Thus, it is reasonable to conclude that prophylactic regulation is not necessary, and may well reduce welfare by deterring efficient investments. Sound policy is to wait for ex post evidence of harm to justify interventions in specific cases. The conditions that would trigger such intervention should be as concrete and specific as possible, in order to reduce perceived investment risk.”).

101. BORK, *supra* note 32, at 226.

102. See Lafontaine & Slade, *supra* note 51.

103. *Id.* at 662.

104. *Id.* at 680.

mergers Wu's policy proposals would affect. In most studies of these integrations, the effects on consumers were either positive or ambiguous.<sup>105</sup> Further, the authors found that when authorities do force vertical separations, prices typically rise and consumers are harmed.<sup>106</sup>

In every vertical merger or contractual agreement, there are two countervailing factors: (1) an increase in foreclosure; and (2) an increase in efficiency or other cost reductions.<sup>107</sup> These two factors typically result in ambiguous or positive effects on consumers, which is why antitrust authorities are so hesitant to enforce vertical separations. Since there is substantial evidence of cost reductions in the information economy, a per se separations rule would be premature and probably welfare-reducing without compelling evidence of pervasive vertical foreclosure effects and minimal benefits to consumers<sup>108</sup>—evidence Wu never proffers.

### C. *Competition in the Information Economy: Case Studies*

The case studies that follow show that markets tend to self-correct quickly when vertical integration or vertical mergers fail to produce the value to either the firm or consumers that was originally imagined.

#### 1. AOL-Time Warner

Just a decade ago, AOL was perceived as the primary threat to online openness and was thought to possess an unassailable position of digital dominance. For a time, it was easy to see why some were worried. Thirty million subscribers were willing to pay \$20 per month to get a guided tour of AOL's walled-garden version of the Internet.<sup>109</sup> Then, AOL and media titan Time Warner announced a historic megamerger that had some critics, such as Norman Solomon and Robert Scheer, predicting the rise of "new totalitarianisms" and a corporate "Big Brother," respectively.<sup>110</sup>

---

105. *Id.* at 674 tbl.16.

106. *Id.* at 663.

107. *Id.* at 673.

108. One of the benefits of vertical integration in an industry with rapidly changing technology lies in the coordination of investment and production decisions. At the present time, when the technology for delivering telecom services is undergoing a sea change and the very nature of those services is changing dramatically, any decision to mandate a move away from vertical integration would be very risky. Crandall, *supra* note 82, at 23. *See also* Owen, *supra* note 100, at 381, (arguing that "there is no basis for an a priori assumption that vertical integration is welfare-reducing," which makes "prophylactic regulation . . . not necessary," and that policymakers should "wait for ex post evidence of harm to justify interventions in specific cases").

109. Roy Mark, *Worldwide AOL Membership Cracks 30 Million Mark*, INTERNET NEWS (June 25, 2001), <http://www.internetnews.com/isp-news/article.php/790471/Worldwide+AOL+Membership+Cracks+30+Million+Mark.htm>.

110. Norman Solomon, *AOL Time Warner: Calling the Faithful to Their Knees*, FAIR (Jan. 13, 2000), <http://www.fair.org/media-beat/000113.html>; Robert Scheer, *Confessions of*

Fearing the worst, the FTC and FCC placed several conditions on the merger. These included “open access” provisions that forced Time Warner to offer service from the second-largest competing Internet service provider (“ISP”) at the time—EarthLink—before it made AOL’s service available across its largest cable divisions.<sup>111</sup> Another FCC-imposed provision mandated interoperability of instant messaging (“IM”) systems based on the fear that AOL was poised to monopolize that emerging technology.<sup>112</sup>

Despite all the handwringing, the merger went off the rails and AOL’s online dominance evaporated quickly.<sup>113</sup> By April 2002, just two years after the deal was struck, AOL-Time Warner had reported a staggering \$54 billion loss.<sup>114</sup> By January 2003, its losses had grown to \$99 billion,<sup>115</sup> and that same year, Time Warner decided to drop AOL from its name altogether.<sup>116</sup> In early 2008, Time Warner decided to shed AOL’s dial-up service,<sup>117</sup> and in 2009, it spun off AOL entirely.<sup>118</sup> Further deconsolidation followed for Time Warner, which spun off its cable TV unit and various other properties. The concern about AOL’s potential to monopolize IM proved particularly unfounded.<sup>119</sup> Consumers today have access to multiple IM services that can be integrated into a single

---

an *E-Columnist*, ONLINE JOURNALISM REV. (Jan. 14, 2000), <http://www.ojr.org/ojr/workplace/1017966109.php>.

111. *FTC Approves AOL/Time Warner Merger with Conditions*, FED. TRADE COMM’N (Dec. 14, 2000), <http://www.ftc.gov/opa/2000/12/aol.shtm>.

112. See App’ns for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee, *Memorandum Opinion & Order*, FCC 01-12, para. 191 (2001), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-01-12A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-01-12A1.pdf).

113. Adam Thierer, *A Brief History of Media Merger Hysteria: From AOL-Time Warner to Comcast-NBC*, 16 PROGRESS ON POINT 2 (2009) [hereinafter *Merger Hysteria*], <http://www.pff.org/issues-pubs/pops/2009/pop16.25-comcast-NBC-merger-madness.pdf>.

114. Frank Pellegrini, *What AOL Time Warner’s \$54 Billion Loss Means*, TIME (Apr. 25, 2002), <http://www.time.com/time/business/article/0,8599,233436,00.html>.

115. Jim Hu, *AOL Loses Ted Turner and \$99 billion*, CNET NEWS (Jan. 30, 2004, 1:37 PM), [http://news.cnet.com/AOL-loses-Ted-Turner-and-99-billion/2100-1023\\_3-982648.html](http://news.cnet.com/AOL-loses-Ted-Turner-and-99-billion/2100-1023_3-982648.html). In a 2006 interview with the *Wall Street Journal*, Time Warner president Jeffrey Bewkes famously declared the death of merger “synergy” and went so far as to tell shareholders the synergy message is “bull—.” Matthew Karnitschnig, *After Years of Pushing Synergy, Time Warner Inc. Says Enough*, WALL ST. J. (June 2, 2006), <http://online.wsj.com/article/SB114921801650969574.html>.

116. Jim Hu, *AOL Time Warner Drops AOL from Name*, CNET NEWS (Sept. 18, 2003, 10:58 AM), [http://news.cnet.com/2100-1025\\_3-5078688.html](http://news.cnet.com/2100-1025_3-5078688.html).

117. Geraldine Fabrikant, *Time Warner Plans to Split off AOL’s Dial-up Service*, N.Y. TIMES (Feb. 7, 2008), <http://www.nytimes.com/2008/02/07/business/07warner.html>.

118. Press Release, Time Warner, Time Warner Inc. Completes Spin-off of AOL Inc. (Dec. 10, 2009), available at <http://ir.timewarner.com/phoenix.zhtml?c=70972&p=irol-newsArticle&ID=1364440&highlight=>.

119. See, e.g., Joe Salkowski, *AOL May Also Have Monopoly*, CHI. TRIB. (June 19, 2000), [http://articles.chicagotribune.com/2000-06-19/business/0006190010\\_1\\_instant-messaging-aol-instant-messenger-tribal-voice](http://articles.chicagotribune.com/2000-06-19/business/0006190010_1_instant-messaging-aol-instant-messenger-tribal-voice).

interface.<sup>120</sup> Looking back at the deal in 2009, *Fortune* magazine senior editor Allan Sloan called it the “turkey of the decade.”<sup>121</sup>

## 2. News Corp.-DirecTV

Similarly, News Corp.’s 2003 acquisition of direct broadcast satellite provider DirecTV led to hyperbolic predictions of media monopoly.<sup>122</sup> Jeff Chester of the Center for Digital Democracy predicted that Rupert Murdoch would use this “Digital Death Star” to “force his programming on cable companies” and a parade of other horrible things.<sup>123</sup> Despite the rhetoric, Murdoch abandoned his plans three years later and in December 2006, News Corp. decided to divest DirecTV to Liberty Media Corporation.<sup>124</sup> As with the unwinding of the AOL-Time Warner deal, little mention was made in the reporting about the divestiture of DirecTV of the previous round of pessimistic predictions or whether there had ever been any merit to the concerns about vertical integration raised by the critics.<sup>125</sup>

## 3. Smartphone Sector

A final case study involves the mobile phone handset and operating system (“OS”) marketplace, which has undergone continuous change over the past 15 years and is still evolving rapidly. When cellular telephone service first started taking off in the mid-1990s, handsets and mobile OSs were essentially one in the same, and Nokia and Motorola dominated the sector with fairly rudimentary devices. The era of personal digital assistants

---

120. See Whitson Gordon, *The Best Instant Messaging Application for Windows*, LIFEHACKER (May 17, 2011), <http://lifehacker.com/5802706/the-best-instant-messaging-application-for-windows> (listing applications that support multiple instant messaging networks).

121. Allan Sloan, *Deals: The Financial World’s Turkeys of the Year*, WASH. POST (Nov. 17, 2009), <http://www.washingtonpost.com/wp-dyn/content/article/2009/11/16/AR2009111603775.html>.

122. Then-FCC Commissioner Jonathan Adelstein worried that the deal would “result in unprecedented control over local and national media properties in one global media empire. Its shockwaves will undoubtedly recast our entire media landscape.” He continued, “With this unprecedented combination, News Corp. could be in a position to raise programming prices for consumers, harm competition in video programming and distribution markets nationwide, and decrease the diversity of media voices.” Gen. Motors Corp. & Hughes Elecs. Corp., Transferors, & News Corp. Ltd., Transferee, *Memorandum Opinion and Order*, FCC 03-330 (2004) (Dissenting Statement of Comm’r Jonathan S. Adelstein), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-330A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-330A1.pdf).

123. Jeff Chester, *Rupert Murdoch’s Digital Death Star*, ALTERNET (May 19, 2003), <http://www.alternet.org/story/15949>.

124. Press Release, News Corp., News Corporation and Liberty Media Corporation Sign Share Exchange Agreement, (Dec. 22, 2006), available at [http://www.newscorp.com/news/news\\_322.html](http://www.newscorp.com/news/news_322.html).

125. *Merger Hysteria*, *supra* note 113, at 2.

(“PDAs”) dawned during this period, but featured a series of overhyped devices, such as Apple’s “Newton,” that failed to catch on. In the early 2000s, however, a host of new players and devices entered the market, many of which are still major players today, including LG, Sony, Samsung, Siemens, and HTC. Importantly, the sector began dividing into handsets versus OS. Leading mobile OS makers have included Microsoft, Palm, Symbian, BlackBerry (RIM), Apple, and Android (Google).<sup>126</sup>

The sector continues to undergo constant change. Palm smartphones were wildly popular for a brief time and brought many innovations to the marketplace.<sup>127</sup> Palm underwent many ownership and management changes, however, and rapidly faded from the scene.<sup>128</sup> After buying Palm in 2010, HP announced that it would use Palm’s WebOS platform in a variety of new products.<sup>129</sup> That effort failed, and HP then announced that it would transition WebOS to an open-source software product.<sup>130</sup> Similarly, RIM’s BlackBerry was the dominant smartphone device for a time, but it has recently been decimated.<sup>131</sup> BlackBerry’s rollercoaster ride has left it “trying to avoid the hall of fallen giants,” in the words of an early 2012 *New York Times* headline.<sup>132</sup> Although the company once accounted for more than half of the American smartphone market, today its share has slipped to ten percent.<sup>133</sup> Microsoft also had a huge lead in licensing its Windows Mobile OS to high-end smartphone handset makers until Apple and Android disrupted its business.<sup>134</sup>

---

126. See, e.g., Henry Blodget, *This Trend is Very Worrisome for Apple*, BUS. INSIDER (Nov. 16, 2012), <http://www.businessinsider.com/mobile-market-share-2012-11>.

127. Sam Grobart & Ian Austen, *The BlackBerry, Trying to Avoid the Hall of Fallen Giants*, N.Y. TIMES (Jan. 28, 2012), <http://www.nytimes.com/2012/01/29/business/blackberry-aiming-to-avoid-the-hall-of-fallen-giants.html> (“Palm Pilots were dazzling when they first appeared: all of your contacts, calendars and notes in one slim, pocket-size device. A touch screen, which required a stylus, made navigation easy. And you could add software, bought through an online store. Want a Zagat guide to go along with your personal data? No problem. In later years, Palm even added telephone features, creating a compelling, all-in-one gadget. Despite boardroom dramas that affected the company’s name and its ownership, Palm’s reputation as a source of innovative hardware and software endured until Jan. 9, 2007. Why that date? That’s when Apple introduced the iPhone.”).

128. See Jason Perlow, *Love Stinks: The Worst Mergers in the History of the Technology Industry*, ZDNET (Feb. 11, 2012, 5:46 PM), <http://www.zdnet.com/photos/love-stinks-the-worst-mergers-in-the-history-of-the-technology-industry/6344256>.

129. Press Release, HP, HP to Acquire Palm for \$1.2 Billion (Apr. 28, 2010), available at <http://www.hp.com/hpinfo/newsroom/press/2010/100428xa.html>.

130. Ryan Paul, *WebOS Governance Model Announced, More Open Than Android*, ARS TECHNICA (Feb. 15, 2012, 5:20 PM), <http://arstechnica.com/business/news/2012/02/webos-governance-model-announced-more-open-than-android.ars>.

131. Holman W. Jenkins, Jr., *Game Over for BlackBerry?*, WALL ST. J. (Jan. 6, 2012), <http://online.wsj.com/article/SB10001424052970203513604577144614178603068.html>.

132. Grobart & Austen, *supra* note 127.

133. *Id.*

134. Adam Thierer, *Bye Bye BlackBerry: How Long Will Apple Last?*, FORBES (Apr. 1, 2012, 12:49 PM), <http://www.forbes.com/sites/adamthierer/2012/04/01/bye-bye-blackberry-how-long-will-apple-last>.

Famously, many commentators denigrated Apple's entry into the smartphone business since many industry analysts believed the market was mature.<sup>135</sup> Just a few years later, Nokia's profits and market share have plummeted,<sup>136</sup> and Google purchased the struggling Motorola.<sup>137</sup> Meanwhile, Palm is dead and Microsoft is struggling to win back market share lost to Apple and Google.<sup>138</sup>

"The violence with which new platforms have displaced incumbent mobile vendor fortunes continues to surprise," says wireless industry analyst Horace Dediu.<sup>139</sup> He notes that Nokia's Symbian platform went from 47 percent share to 16 percent in three years, Microsoft's phone platforms went from 12 percent to 1 percent, RIM's went from 17 percent to 12 percent, and other platforms went from 21 percent to zero.<sup>140</sup> Meanwhile, over a two-year period, Google's Android OS went from zero to 48 percent and Apple's iOS went from 2 percent to 19 percent.<sup>141</sup> Of course, in a marketplace this dynamic, Apple and Google could wake up in

---

135. For example, in December 2006, Palm CEO Ed Colligan summarily dismissed the idea that a traditional personal computing company could compete in the smartphone business. "We've learned and struggled for a few years here figuring out how to make a decent phone," he said. "PC guys are not going to just figure this out. They're not going to just walk in." John Paczkowski, *Apple: How Do You Say 'Eat My Dust' in Finnish?*, ALL THINGS D (Nov. 11, 2009, 4:30 AM), <http://allthingsd.com/20091111/nokia-apple>. In January 2007, Microsoft CEO Steve Ballmer laughed off the prospect of an expensive smartphone without a keyboard having a chance in the marketplace as follows: "Five hundred dollars? Fully subsidized? With a plan? I said that's the most expensive phone in the world and it doesn't appeal to business customers because it doesn't have a keyboard, which makes it not a very good e-mail machine." *Id.* In March 2007, computing industry pundit John C. Dvorak argued that "Apple should pull the plug on the iPhone" since "there is no likelihood that Apple can be successful in a business this competitive." John C. Dvorak, *Apple Should Pull the Plug on the iPhone*, WALL ST. J. (Mar. 28, 2007, 7:18 PM), <http://www.marketwatch.com/story/apple-should-pull-the-plug-on-the-iphone>. Dvorak believed the mobile handset business was already locked up by the era's major players. "This is not an emerging business. In fact it's gone so far that it's in the process of consolidation with probably two players dominating everything, Nokia Corp. and Motorola Inc." *Id.*

136. Stan Schroeder, *Nokia's Profits Fall, Its Smartphone Business Weakens*, MASHABLE (Jan. 27, 2011), <http://mashable.com/2011/01/27/nokias-profits-fall> (noting that Nokia reported a 21% year-over-year decrease in net profit, dropping from \$1.3 billion in 2010 to \$1.02 billion in the last quarter); Anton Troianovski & Arild Moen, *Nokia Crisis Deepens, Shares Plunge*, WALL ST. J. (Apr. 11, 2012, 7:36 PM), <http://online.wsj.com/article/SB10001424052702304356604577337452563544904.html> (noting that Nokia's market value stands at \$16 billion, down from \$90 billion five years ago, and that its depository share value has dropped 16% to a fifteen year low of \$4.24).

137. Thierer, *supra* note 134.

138. *Id.*

139. Horace Dediu, *The Fate of Mobile Phone Brands*, ASYMCO (Aug. 2, 2011, 4:23 PM), <http://www.asymco.com/2011/08/08/the-fate-of-mobile-phone-brands>.

140. *Id.*

141. *Id.*

a few years and find that they too have been displaced from their current perches atop the smartphone hill.<sup>142</sup>

Given the importance of mobile broadband in consumer markets and the vicious competition in this sector and others, it strains credulity to say that breakup of tech companies via the Separations Principle is needed to ensure competition and free speech. Interestingly, this dynamic change has not kept Wu from complaining about the nature of competition in the smartphone sector. He has bemoaned the state of competition in this sector and referred to the practices of carriers as “outrageous and perhaps illegal” even as market influence has rapidly shifted away from carriers and toward handset makers and OS developers.<sup>143</sup>

Because of the efficiency justifications described above, and the changing nature of these markets, Wu’s proposed per se antitrust enforcement is unsupported. The preceding case studies provide compelling evidence that even the mightiest “information empires” can crumble and fall—and in very short order. Despite what Wu claims, there is little reason to believe “this time is different” and that the information economy is, for once, immune from dynamic, disruptive changes. Escape from any platform is reasonably easy and innovation continues at a healthy clip. If future technology platform competition is dynamic like the past twenty years has been, preemptive vertical separations—like those proposed by Wu—would undermine the ability of firms to aggressively innovate and attempt to dominate the market.

#### *D. Dynamic, Schumpeterian Change vs. Static Equilibrium Analysis*

The modern information economy is the living embodiment of what Austrian-born economist Joseph Schumpeter famously described as the “perennial gale of creative destruction.”<sup>144</sup> Economist Jerry Ellig has explained that, in the Schumpeterian paradigm, “[f]irms compete not on the margins of price and output, but by offering new products, new technologies, new sources of supply, and new forms of organization. Possession of market power is consistent with vigorous competition, and many seemingly anticompetitive practices actually facilitate innovation.”<sup>145</sup>

---

142. Thierer, *supra* note 134.

143. Tim Wu, *Wireless Net Neutrality: Cellular Carterfone and Consumer Choice in Mobile Broadband* 1 (New Amer. Found., Working Paper No. 17, 2007), available at [http://www.newamerica.net/publications/policy/wireless\\_net\\_neutrality](http://www.newamerica.net/publications/policy/wireless_net_neutrality); Adam Thierer, *CTIA’s Refutation of Tim Wu’s 2007 Wireless Net Neutrality Paper*, TECH. LIBERATION FRONT (Feb. 22, 2010), <http://techliberation.com/2010/02/22/ctias-refutation-of-tim-wus-2007-wireless-net-neutrality-paper>.

144. JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM AND DEMOCRACY 84 (3d ed. 1962).

145. DYNAMIC COMPETITION AND PUBLIC POLICY: TECHNOLOGY, INNOVATION, AND ANTITRUST ISSUES 6 (Jerry Ellig ed., 2001).

The Schumpeterian paradigm and other dynamic competition models best capture the nature of competition and innovation in today's digital marketplace. "Innovative risk-takers are constantly shaking things up and displacing yesterday's lumbering, lethargic giants."<sup>146</sup> In markets built largely upon binary code, the pace and nature of change has become hyper-Schumpeterian: unrelenting and unpredictable. New disruptions flow from many unexpected quarters as innovators launch groundbreaking products and services while devising new ways to construct cheaper and more efficient versions of existing technologies. Change has been constant, uneven, and highly disruptive but it has also led to the progress and innovation seen flowing through the information sector over the past two decades.

There is no static end-state, "perfect competition," or "market equilibrium" in today's information-technology marketplace.<sup>147</sup> Change and innovation are chaotic, nonlinear, and paradigm-shattering.<sup>148</sup> Schumpeter notes how,

in capitalist reality as distinguished from its textbook picture, it is not [perfect] competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organization . . . competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives. This kind of competition is as much more effective than the other . . . [it] acts not only when in being but also when it is merely an ever-present threat. It disciplines before it attacks.<sup>149</sup>

---

146. Adam Thierer, *Of "Tech Titans" and Schumpeter's Vision*, FORBES (Aug. 22, 2011, 12:31 PM), <http://www.forbes.com/sites/adamthierer/2011/08/22/of-tech-titans-and-schumpeters-vision>.

147. See Jerry Ellig & Daniel Lin, *A Taxonomy of Dynamic Competition Theories*, in DYNAMIC COMPETITION AND PUBLIC POLICY: TECHNOLOGY, INNOVATION, AND ANTITRUST ISSUES, *supra* note 145, at 22 (stating that "[e]volutionary economics functions in 'real time'" and that "[t]here is no discernible end point."); GERALD P. O'DRISCOLL JR. ET AL., THE ECONOMICS OF TIME AND IGNORANCE 97, 100 (1985) (noting that "[c]ompetition in fact is a continuous process and not a set of conditions . . . [and] is a dynamic process, a process in time.").

148. See Ellig & Lin, *supra* note 147, at 18-19 (noting that "Schumpeterian competition is primarily about active, risk-taking decision makers who seek to change their parameters . . . [i]t is about continually destroying the old economic structure *from within* and replacing it with a new one.").

149. SCHUMPETER, *supra* note 144, at 84-85.



Antitrust scholars J. Gregory Sidak and David J. Teece explain why this dynamic model better describes real-world marketplace competition:

The adjective “dynamic” is a shorthand descriptor for a variety of rigorously competitive activities such as significant product differentiation and rapid response to change, whether from innovation or simply from new market opportunities ensuing from changes in taste or other forces of disequilibrium. Dynamic competition is, in fact, more intuitive and much closer to today’s everyday view of competition than is the stylized notion of static competition routinely depicted in textbooks.<sup>150</sup>

While static or “perfect competition” models assume away innovation and are preoccupied with competitive equilibrium, dynamic models revolve around disequilibrium and assume the only constant is change.

What is most important to economic progress, therefore, is the ongoing process of constant experimentation and spontaneous discovery that allows new business models and organizational structures to emerge in response to market signals. Sidak and Teece note that “[t]he basic framework employed in discussions about innovation, technology policy, and competition policy is often remarkably naïve, highly incomplete, and burdened by a myopic focus on market structure as the key determinant of innovation.”<sup>151</sup> Additionally, Sidak and Teece explain:

Market share may be altogether irrelevant in some cases because markets may exist in which innovation is so characteristic and sustained that firms compete not merely for market share, but for markets as a whole. A firm’s monopoly today may say little about the firm’s prospects one, two, or five years in the future.<sup>152</sup>

The particular danger of the static equilibrium mindset is that the same new innovators and innovations that obtain success and scale rapidly as a result of this process are sometimes thought to possess problematic market power. Accusations of monopoly quickly follow, as they do in Wu’s work. Coase notes that

if an economist finds something—a business practice of one sort or another—that he does not understand, he looks for a monopoly explanation. And as in this field we are very

---

150. J. Gregory Sidak & David J. Teece, *Dynamic Competition in Antitrust Law*, 5 J. COMPETITION L. & ECON. 581, 603 (2009).

151. *Id.* at 589.

152. *Id.* at 615.

ignorant, the number of unexplainable practices tends to be rather large, and the reliance on a monopoly explanation, frequent.<sup>153</sup>

This is why a short-term fixation on market share and market power is so problematic.

The static equilibrium model is myopically fixated on short-term market share and price competition while ignoring “competition for innovation,” which is what matters most in the more dynamic Schumpeterian model. As Robert Kramer of the DOJ’s Antitrust Division noted in a 1999 speech, “[a]s important as price competition is to us, a second major and possibly even greater concern is maintaining competition for innovation.”<sup>154</sup> Schumpeter also explained that uneven entrepreneurial gains must be tolerated if innovation is to occur.<sup>155</sup> Economies need innovators to take risks because progress is born from it.<sup>156</sup> Penalizing the risk-takers by trying to level the playing field through rash regulation or antitrust interventions will often sap the entrepreneurial spirit from the marketplace, limit technological innovation, and diminish the possibility of progress and prosperity over the long-haul.<sup>157</sup> Wu’s analysis gives little consideration to the possibility that obtaining market power will not adversely impact innovation within the tech sector. Geoffrey Manne and Joshua Wright explain that “this is a problem if the innovators have forsaken monopoly profits in competition for the field in expectation of future reward, only to find that their reward is made unavailable at the moment they begin to enjoy it.”<sup>158</sup> They continue,

A purely static, forward-looking assessment will miss the consumer welfare benefits previously enjoyed by consumers of the innovative product and curtail the market because of a present or future expectation that consumers will be harmed.

---

153. Ronald H. Coase, *Industrial Organization: A Proposal for Research*, in *ECONOMIC RESEARCH: RETROSPECT AND PROSPECT VOL. 3: POLICY ISSUES AND RESEARCH OPPORTUNITIES IN INDUSTRIAL ORGANIZATION* 59-73, 67 (Victor R. Fuchs ed., 1972).

154. Robert Kramer, Litig. II Section Chief, Antitrust Div., U.S. Dep’t of Justice, *Antitrust Considerations in International Defense Mergers*, Address before the American Institute of Aeronautics and Astronautics (May 4, 1999), available at <http://www.usdoj.gov/atr/public/speeches/2649.htm>.

155. Maria T. Brouwer, *Weber, Schumpeter and Knight on Entrepreneurship and Economic Development*, 12 J. EVOL. ECON. 83, 89 (2002) (discussing Schumpeter’s views on entrepreneurship and innovation).

156. Heather Rolfe, *Learning to Take Risks, Learning to Succeed*, NAT’L ENDOWMENT FOR SCI., TECH. & ARTS (June 2010), [http://www.nesta.org.uk/library/documents/Learning\\_to\\_take\\_risks.pdf](http://www.nesta.org.uk/library/documents/Learning_to_take_risks.pdf).

157. Owen, *supra* note 100, at 376 (“Schumpeter and his followers had in mind an industry characterized by a continuing game in which process or product innovation is a key dimension of competition, requiring significant investment and risk.”).

158. Geoffrey A. Manne & Joshua D. Wright, *Innovation and the Limits of Antitrust*, 6 J. COMPETITION L. & ECON. 153, 171 (2010).

This has long-run dynamic efficiency effects, chilling the very innovation that might confer initial consumer surplus, but it also may simply miss the mark in a more static sense, punishing conduct that is already consumer-welfare enhancing.<sup>159</sup>

Wu's Separations Principle generally ignores these insights and instead proposes that policymakers engage in preemptive, prophylactic market-carving efforts to head-off unproven market-power problems.<sup>160</sup> This discounts the potential for Schumpeterian change even though we have already witnessed repeated waves of such creative destruction reordering the information economy over the past two decades.

### *E. Openness Concerns*

Throughout his work, Wu cites "openness" for networks, platforms, devices, and the like as a primary rationale for regulation, including his proposed Separations Principle.<sup>161</sup> He speaks of "the perennial Manichean contest informing every episode in this book: the struggle between the partisans of the open and the closed, between the decentralized and the consolidated versions of a proper order."<sup>162</sup> Such openness concerns are generally unwarranted or overblown, however.<sup>163</sup>

First, "as an analytical tool the labels 'open' and 'closed' are of limited utility, because they cannot adequately capture the complexity of selective openness at various layers of a system within their single binary distinction," observes Hanno F. Kaiser, a U.S. and EU antitrust lawyer.<sup>164</sup> Wu is often unclear about what constitutes "openness" or why some devices or platforms are supposedly more open than others. "A reader who pays close attention," observes Paul Starr in his review of Wu's book, "will notice a clever sleight of hand: The terms 'open' and 'closed' change in

---

159. *Id.*; see also Eric Goldman, *Revisiting Search Engine Bias*, 38 WM. MITCHELL L. REV. 96, 101 (2011) ("First, if we evaluate Internet competition only by taking a point-in-time snapshot of existing competitors, we will probably fail to anticipate the identity and business proposition of disruptive new entrants. Second, in a digital environment with low switching costs between vendors, consumers will flock to new entrants that solve their informational needs—even if the competitors offer a very different solution. As a result, a dominant information provider in one technological niche still faces significant cross-elasticities of demand from providers in other technological niches.").

160. See THE MASTER SWITCH, *supra* note 1, at 304-16.

161. See, e.g., *id.* at 314-16 (using openness to justify the Separations Principle).

162. *Id.* at 273.

163. See generally Adam Thierer, *The Case for Internet Optimism, Part 2: Saving the Net from its Supporters*, in THE NEXT DIGITAL DECADE: ESSAYS ON THE FUTURE OF THE INTERNET 139, 143 (Berin Szoka & Adam Marcus eds., 2010) (indicating that fears of closed systems are overstated).

164. Hanno F. Kaiser, *Are Closed Systems an Antitrust Problem?*, 7 COMPETITION POL'Y INT'L 91, 94 (2011).

meaning from one chapter to another.”<sup>165</sup> That probably is not intentional, but simply reflects the complexity of defining these subjective, evolving concepts.

Second, moving beyond definitional deficiencies, even if one grants that some information systems are more “closed” than others, it is evident that there must be a need for some closed devices and platforms or the market would not have supplied them. Building on concerns first articulated by Lessig and Jonathan Zittrain,<sup>166</sup> Wu fears closed systems will become mere “digital appliances” that are not sufficiently “generative.”<sup>167</sup> He worries when he sees that devices like Apple’s iPad “are computers that have been reduced to a strictly limited set of functions that they are designed to perform extremely well.”<sup>168</sup> Needless to say, most consumers will find it hard to sympathize with Wu’s complaint that Apple’s products work too well, even if the devices are not as open as Wu desires.

Third, it is unclear how an effort to mandate openness would improve consumer welfare. Would consumers be better served if they were offered only devices that arrived totally un-configured? Should the iPhone or iPad, for example, be shipped to market with no applications loaded on the main screen, forcing everyone to go find them on their own? Few people want to program their mobile phones, hack their computers or gaming consoles, or write their own code. Markets serve these populations with specialized devices that offer a diverse array of open and closed choices to fit their specific needs. Further, while opening closed systems, however defined, may produce some beneficial flexibility for consumers, it might also reduce the incentive to create new systems since firms cannot enjoy some of the competitive benefits of closed systems. Whether this would be a net benefit for consumers in the end cannot be determined here, but it is possible that closed systems—which give firms some control and perhaps some added profitability—incited the creation of the high-quality tech products on the market today.<sup>169</sup>

What is important is the fact that innovation continues to unfold rapidly in both directions along the open versus closed continuum, and the Separations Principle would stymie evolution.<sup>170</sup> There are more open and

---

165. Starr, *supra* note 21.

166. See LESSIG, *supra* note 36; JONATHAN ZITTRAIN, *THE FUTURE OF THE INTERNET—AND HOW TO STOP IT* (2008); Jonathan Zittrain, *Lost in the Cloud*, N.Y. TIMES (July 19, 2009) <http://www.nytimes.com/2009/07/20/opinion/20zittrain.html>.

167. THE MASTER SWITCH, *supra* note 1, at 291, 293.

168. *Id.* at 292.

169. See Harold Demsetz, *Barriers to Entry*, 72 AM. ECON. REV. 47, 51 (1982), for an explanation of how permitting closed systems may be similar to granting intellectual property protections and how removing intellectual property protections would discourage the creation of new products while providing some short-term consumer benefits.

170. Peter Decherney et al., *Are Those Who Ignore History Doomed to Repeat It?*, 78 U. CHI. L. REV. 1627, 1665 (2011). (“It is true that in certain technologies, in specific historical periods, the balance between open and closed can become upset. It is not at all

closed devices and systems than ever. For example, each time Apple creates a new product category (iPod, iPhone, iPad), other companies are quick to follow with their own, usually more open systems, many of which run Google's more open Android operating system. It is clear, therefore, "that elements of the system can be made open while others remain proprietary," and that "these are not primarily ideological positions; they are commercial strategies."<sup>171</sup> Many of the largest "information empires" do not create strict walled gardens; instead they create partially walled gardens and invite many others to enjoy them. One way they do so is by licensing upstream content to other downstream platform providers. For example, Microsoft Office runs on multiple operating systems; Amazon's Kindle service is available via apps on the iPhone and iPad as well as Android devices; Google's many services are available across browsers, phones, tablets, and so on. These trends and strategies remain in constant flux yielding varied forms of pro-consumer innovation.

Finally, most corporate attempts to bottle up information, or close off their platforms, end badly. The walled gardens of the past—CompuServe and America Online, for example—failed in the end: CompuServe no longer exists and AOL has been relegated to an also-ran in the Internet ecosystem.<sup>172</sup> There are few reasons to believe that today's efforts to build such walled gardens would end much differently, in time.<sup>173</sup>

These openness concerns arise from Wu's fundamentally static model of competition and innovation. Properly defined, open systems are based on marketplace experimentation and consumer choices, even if some closed devices and platforms are popular and thrive naturally. A truly open system is one that allows for experimentation with varying models of production to determine what consumers prefer.

---

obvious, however, that the history of either the personal computer or the Internet illustrates a clear or inevitable trajectory from open to closed. The reality is much more complicated.").

171. *Id.*

172. In her critique of Zittrain's book, Ann Bartow notes that "if Zittrain is correct that CompuServe and America Online (AOL) exemplify the evils of tethering, it's pretty clear the market punished those entities pretty harshly without Internet governance-style interventions." Ann Bartow, *A Portrait of the Internet as a Young Man*, 108 MICH. L. REV. 1079, 1088 (2010).

173. Moreover, today's "walled gardens"—Facebook and LinkedIn, for example—are less "walled" than they were in the past. Similarly, "closed" systems and devices are not really so closed. Increasingly, when companies or coders erect walls of any sort, holes form quickly. For example, it usually does not take long for a determined group of hackers to find ways around copy/security protections on various types of content or to "root" or "jailbreak" phones and other devices. Once hacked, users are usually able to configure their devices or applications however they wish, effectively thumbing their noses at developers. This process tends to unfold in a matter of days, even hours, after the release of a new device or operating system. On the other hand, some consumers may prefer the closed systems, but then there is not much consumer-welfare loss.

## IV. REAL-WORLD APPLICATION OF THE SEPARATIONS

## PRINCIPLE

*A. Self-Regulation Norms*

Wu states that a necessary component of the Separations Principle is that firms voluntarily adopt self-governing norms that ensure vertical separations.<sup>174</sup> This is an unlikely proposition. Firms can take advantage of efficiencies through vertical integration, as discussed previously, so self-regulation would mean voluntarily forfeiting those benefits. Since there are only a few dominant firms in each layer of the information economy, however, it is conceivable that firms could organize to mutually ensure each firm stayed in its respective “bucket,” but the anticompetitive effects from this kind of self-regulation are readily apparent. With only a few dominant players at every level, firms may self-regulate to acquire monopoly rents at the horizontal platform they occupy. These firms would no longer be constrained by their large ex-competitors who have exited the market for their own bucket.

Would consumers really be better off if Amazon agreed with Apple to not compete with each other in the information creator and information hardware maker markets? One can imagine Amazon willingly giving up its Kindle business in order to focus on distributing content to e-readers, knowing that Apple would no longer compete in the music and e-reader distribution business. Apple, of course, would probably be happy to no longer compete with Amazon in the e-reader device market if Amazon left the content space. These are the very self-regulating agreements we would expect if firms adopted Wu’s desired industry norms. It is apparent, however, that agreements like this resemble collusion and market division between competitors, which are acts currently prosecuted as per se violations by antitrust agencies because the anti-consumer effects are so obvious.<sup>175</sup> These anti-consumer dangers do not disappear if favored by the government through adoption of the Separations Principle.

*B. Enforcement Challenges Associated with the Separations Principle*

Regarding the “prevention and dissolution” of vertical mergers between the content production, telecom, and electronics sectors, Wu proposes the FCC impose the Separations Principle since it is currently

---

174. THE MASTER SWITCH, *supra* note 1, at 313.

175. See *Arizona v. Maricopa Co. Med. Soc.*, 457 U.S. 332, 344 n.15 (1982) (asserting that the “division of markets” is a per se offense). See also *Palmer v. BRG of Ga., Inc.*, 498 U.S. 46, 49-50 (1990).

within the FCC's authority to do so,<sup>176</sup> presumably referring to the agency's amorphous "public interest and convenience" standard.<sup>177</sup> In addition to the FCC, Wu says the DOJ and the FTC are needed as backup.<sup>178</sup> Wu acknowledges the public-choice problems involved: "Time and again [the government] has stood beside concentrated power against the underdog at the expense of economic dynamism."<sup>179</sup> In the case of AT&T in the 1980s particularly, the FCC was a large source of the problems the DOJ tried to remedy.<sup>180</sup> While Wu imagines that separations would be fairly nonintrusive—it is a "constitutional" solution, not a "regulatory" one, remember—his Principle would actually result in pervasive and costly regulatory processes.

In his extensive analysis of 20th-century Sherman Act structural remedies, Brookings Institution economist Robert Crandall concludes that structural remedies, particularly vertical divestitures, are often very costly and fail to improve the competitive landscape or consumer welfare.<sup>181</sup> Further, he points out that it can be very difficult to enforce structural remedies in rapidly changing industries.<sup>182</sup> Crandall's conclusions cast doubt on the effectiveness and prudence of adopting a Separations Principle that would preemptively impose structural antitrust remedies. Structural remedies in the past, like the AT&T and Paramount breakups, required years of careful watch by a regulatory body and the courts.<sup>183</sup> In the 1984 AT&T decree, for instance, there were over thirty separate waiver requests filed every year for the first eight years of the decree, each one pending for months or years.<sup>184</sup> The entire information economy is moving incredibly fast, and separated firms would likely be at unforeseen disadvantages as the market transformed, similar to what happened with AT&T. There is reason to believe the fast-moving nature of the information economy would pose more problems for regulators than traditional regulated industries. If the vertical separations imagined by Wu were to be

---

176. See *THE MASTER SWITCH*, *supra* note 1, at 311.

177. See 47 U.S.C. § 303(r) (2006) ("[T]he Commission from time to time, as public convenience, interest, or necessity requires, shall . . . [m]ake such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this chapter . . ."); *WOKO, Inc. v. FCC*, 109 F.2d 665, 667 (D.C. Cir. 1939) ("Within the area bounded by the standard of public interest, convenience and necessity, the Commission has wide discretionary power. If it acts within this area of discretion prescribed by the Act, and its determination is supported by substantial evidence, there is no ground or reason for judicial interference . . .").

178. See *THE MASTER SWITCH*, *supra* note 1, at 312.

179. See *id.* at 308.

180. See Crandall, *supra* note 82, at 5, 6.

181. See Crandall, *supra* note 54, at 114, 161.

182. See *id.* at 114.

183. See *id.* at 115.

184. See *id.*

anything like prior dissolutions, the regulatory fights would be constant and require regular vigilance by the FCC to prevent exclusionary conduct.<sup>185</sup>

To give a taste of what regulation under the Separations Principle would look like, consider some of the high-profile dissolutions that would need to be implemented:

- **Apple:** Apple would have to be broken up into at least two companies: information creator and hardware maker. The Apple App Store, iTunes, iOS, and other programs would be separated from the iPad, iPod, iPhone, and other Apple devices. Those devices would need to be compatible with other content producers as well. Some device prices would rise since today they are subsidized by carriers, often on the condition of exclusivity.<sup>186</sup>
- **Microsoft:** Microsoft would also have to be broken up as an information creator and a hardware maker. Their software, video games, Internet Explorer web browser, and Hotmail email services would need to be separated from their Xbox game-console division, their recently acquired interest in Barnes & Noble's Nook e-reader, and, presumably, their Windows OS.<sup>187</sup> Microsoft's other hardware ventures—keyboards, mice, joysticks, peripherals, and so forth—would also have to be moved to the hardware division.
- **Amazon:** Amazon would probably have to be broken into three companies since it occupies all three buckets. Amazon Web Services, its cloud-computing platform, would be an information distributor—its infrastructure in the information economy. Amazon's Kindle arm would become a separate company, in the hardware maker category.<sup>188</sup> Amazon's presence in the information creator category, featuring books, publishing, CDs, DVDs, software, video, and other products would likewise need to be kept separate.

---

185. *Id.*, at 114.

186. Trefis Team, *AT&T Needs To Focus On Profitability As iPhone 5 Arrives*, FORBES (Sept. 12, 2012, 3:46 PM), <http://www.forbes.com/sites/greatspeculations/2012/09/12/att-needs-to-focus-on-profitability-as-iphone-5-arrives/>.

187. See Peter Ha, *Sources: Microsoft And Barnes & Noble To Announce Tablet With Xbox Live Streaming Tomorrow*, TECHCRUNCH (June 17, 2012), <http://techcrunch.com/2012/06/17/ms-la/>.

188. See Barb Darrow, *The Kindle Fire has Sizzle, but AWS is the Steak*, GIGAOM (Nov. 14, 2011), <http://gigaom.com/cloud/the-kindle-fire-has-sizzle-but-aws-is-the-steak/>; Bryan Carey, *Amazon.com Black Friday Week Begins*, EXAMINER.COM (Nov. 19, 2012), <http://www.examiner.com/article/amazon-com-black-friday-week-begins>.



- **Google:** Google also occupies all three categories. Google's substantial interest in the Current Communications Group—a smart-grid network—would be placed in the information distributor category,<sup>189</sup> as would the Google Fiber broadband network.<sup>190</sup> Google, of course, is predominantly in the information creator business with services like search, YouTube, Google Maps, Android software, and Gmail. Google's recent \$12.5 billion purchase of Motorola Mobility would need to be spun off into the hardware maker category even though the partnership could help Google compete more squarely against Apple.<sup>191</sup>
- **Comcast:** Comcast is a major cable operator and ISP, but it also owns cable networks like E!, the Golf Channel, and various sport properties.<sup>192</sup> In 2013, Comcast completed its purchase of NBCUniversal, which produces content like NBC broadcasting and cable channels USA, Bravo, and MSNBC.<sup>193</sup> Comcast would be split into an information creator and a separate information distributor.
- **Sony:** Sony produces movie and video-game content but also develops hardware, like video game consoles, televisions, music players, and phones, on which that content can be played.<sup>194</sup> These units would need to be separated and some of them spun off.

These are some of the leading names of the information economy, but there are thousands of other information-sector companies operating across dozens of sectors throughout our economy. TechAmerica, a technology industry trade association with diverse membership, uses over

---

189. See Jon M. Garon, *Searching Inside Google: Cases, Controversies and the Future of the World's Most Provocative Company*, 30 LOY. L.A. ENT. L. REV. 429-38 (2009-2010).

190. See Nathan Olivarez-Giles, *Google Fiber in Kansas City, Kan., free to schools, available to public in 2012*, L.A. TIMES (Mar. 30, 2011) <http://latimesblogs.latimes.com/technology/2011/03/google-fiber-in-kansas-city-kan-free-to-schools-available-to-public-in-2012.html>.

191. Tim Bjarin, *Why Google Will Use Motorola to Become Vertically Integrated*, TECH.PINIONS (Apr. 23, 2012), <http://techpinions.com/why-google-will-become-vertically-integrated/6575>.

192. See Press Release, Comcast, Comcast and GOLF CHANNEL Roll Out Series to Introduce America's Youth to Golf's African-American Pioneers (July 23, 2009), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ay6g4wqiZqCM>.

193. Martin Peers et al., *Comcast Buys Rest of NBC's Parent*, WALL ST. J. (Feb. 13, 2013), <http://online.wsj.com/article/SB10001424127887324880504578300432831438770.html>.

194 See Richard A. Gershon & Tsutomu Kanayama, *The Sony Corporation: A Case Study in Transnational Media, Management* 4 INT'L J. MEDIA MGMT. 105, 110 (2002).

fifty North American Industry Classification System (“NAICS”) codes to define the U.S. high-technology industry.<sup>195</sup> Although companies choose only one primary NAICS designation,<sup>196</sup> in practice the diversity of goods and services they provide often cuts across multiple industrial classifications. For example, Google’s primary NAICS designation is NAICS #517919 (“All Other Telecommunications”) even though it would seem more logical for the firm to be housed under NAICS #519130 (“Internet Publishing and Broadcasting and Web Search Portals”).<sup>197</sup> Of course, Google could just as easily be classified under NAICS #511210 (“Software Publishers”), where it competes against Microsoft, among others, or under NAICS #334111 (“Electronic Computer Manufacturing”), where it competes against Apple. In other words, it is rare to find a major company in the information economy that operates in just one NAICS field. The crucial point here is that creating firewalls between the buckets Wu proposes would be far more complicated than Wu admits and would entail incessant regulatory interventions to make sure the walls were not breached. More importantly, each new information sector innovation would suddenly be subjected to a regulatory classification proceeding. The costs for those to industries, consumers, and innovation would be significant.

Further, it is not clear that the Separations Principle—without more—would prevent the sort of exclusionary harms Wu fears since there is little competitive difference between vertical integration through ownership or through contract.<sup>198</sup> Would the Principle also require the FCC to examine and prohibit certain vertical contracts? For example, if Apple were divided into two companies—a device company and a content company—and they immediately contracted together for, say, a five-year exclusive deal, this looks much like the status quo (with some contracting costs). Would the FCC need the power to prevent these *de facto* vertical integrations as well?

Astonishingly, Wu suggests that “a Separations regime would take much of the guesswork and impressionism . . . out of the oversight of the information industries.”<sup>199</sup> To the extent that his Separations Principle eliminates guesswork and creates more regulatory certainty, it would do so only by creating rigid artificial barriers to market entry across the information economy. That seems to be the kind of “certainty” we can live

---

195. *TechAmerica’s NAICS-Based Definition of High Tech*, TECHAMERICA (Dec. 25, 2010), <http://www.techamerica.org/naics-definition>.

196. *Frequently Asked Questions*, NAICS ASS’N, <http://www.naics.com/faq.htm> (last visited Nov. 18, 2012).

197. See *NAICS Code Description: 517919 All Other Telecommunications*, NAICS ASS’N, <http://www.naics.com/free-code-search/naicsdescription.php?code=517919> (last visited Nov. 18, 2012); *NAICS Code Description: 519130 Internet Publishing and Broadcasting and Web Search Portals*, NAICS ASS’N, <http://www.naics.com/free-code-search/naicsdescription.php?code=519130> (last visited Nov. 18, 2012).

198. Hovenkamp, *supra* note 79, at 883.

199. THE MASTER SWITCH, *supra* note 1, at 307.

without. It is doubtful that regulators will possess the requisite knowledge to define present markets in a static sense, or know which vertical contracts will be unduly exclusionary. As F.A. Hayek noted, “[p]rogress by its very nature cannot be planned.”<sup>200</sup> As Sidak and Teece argued:

[I]f one is to adopt a forward-looking antitrust analysis, then neither the enforcement agencies nor the courts will likely know which products will be good substitutes in the future. Because innovation produces new products and lowers the cost of existing products, policymakers must include such future products when defining the market, but doing so is quite difficult in many instances . . . .<sup>201</sup>

Wu’s proposed solution, however, ignores these problems.

### *C. Other Considerations Regarding the Wisdom of the Separations Principle*

This section briefly discusses a handful of other considerations that would complicate the creation and ongoing enforcement of Wu’s Separations Principle.

#### *1. Regulatory Capture*

Wu rightly points to the danger of regulatory capture in heavily regulated communications and media sectors:

Again and again in the histories I have recounted, the state has shown itself an inferior arbiter of what is good for the information industries. The federal government’s role in radio and television from the 1920s through the 1960s, for instance, was nothing short of a disgrace . . . . Government’s tendency to protect large market players amounts to an illegitimate complicity . . . [particularly its] sense of obligation to protect big industries irrespective of their having become uncompetitive.<sup>202</sup>

But as quickly as Wu raises this problem, he seems to dismiss it. He seems to imagine that a new separations regime will be immune to such tendencies. That is unlikely to be the case. A long line of economists and political scientists have documented how affected parties often capture the

---

200. FRIEDRICH A. HAYEK, *THE CONSTITUTION OF LIBERTY* 41 (1960).

201. Sidak & Teece, *supra* note 150, at 614.

202. THE MASTER SWITCH, *supra* note 1, at 307-08.

regulatory process and use it for their own ends.<sup>203</sup> Capture theory is closely related to the rent-seeking and political failure theories developed by the public choice school of economics.<sup>204</sup> While capture theory cannot explain all regulatory decisions or developments, it does explain with dismaying consistency how self-interested motives can affect political actions.<sup>205</sup> The traditional normative theory of regulation, which viewed policymakers as enlightened, independent, and benevolent actors,<sup>206</sup> failed to address this problematic, recurring reality, as well as other deficiencies in the political decision-making process. Scholars developed a new, more robust economic theory of regulation to help explain why the traditional paradigm was incomplete.<sup>207</sup> These scholars argued it was inappropriate to assume regulatory intervention was always in the public interest or would always improve consumer welfare.<sup>208</sup>

In particular, University of Chicago economist George Stigler's pioneering work in developing this more robust economic theory of regulation revealed how "as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefits."<sup>209</sup> Alfred Kahn's meticulous study of the regulatory process also identifies how capture was a particular problem for utility sectors:

When a commission is responsible for the performance of an industry, it is under never completely escapable pressure to protect the health of the companies it regulates, to assure a desirable performance by relying on those monopolistic chosen instruments and its own controls rather than on the unplanned and unplannable forces of competition . . . . Responsible for the continued provision and improvement of service, [the regulatory commission] comes increasingly and

---

203. See, e.g., Adam Thierer, *Regulatory Capture: What the Experts Have Found*, TECH. LIBERATION FRONT (Dec. 19, 2010), <http://techliberation.com/2010/12/19/regulatory-capture-what-the-experts-have-found>.

204. GORDON TULLOCK ET AL., *GOVERNMENT FAILURE: A PRIMER IN PUBLIC CHOICE* (2002).

205. Thierer, *supra* note 203.

206. RANDY T. SIMMONS & GORDON TULLOCK, *BEYOND POLITICS: THE ROOTS OF GOVERNMENT* 42 (2011) ("For more than one hundred years the basic vision of bureaucracy has been that efficiency is promoted by professional, nonpartisan administration directed by a strong executive," notes economist Randy T. Simmons. "Scientific management of public agencies . . . is based on the belief that 'right-minded' managers, who are not motivated by profit or other selfish goals, will protect the public interest while managing government agencies, programs and properties.")

207. W. KIP VISCUSI ET AL., *ECONOMICS OF REGULATION AND ANTITRUST* 328-46 (2d ed. 1998).

208. Sam Peltzman et al., *The Economic Theory of Regulation after a Decade of Deregulation*, BROOKINGS PAPERS ECON. ACTIVITY: MICROECONOMICS, 1989, at 1.

209. George Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 1, 3 (1971). For a broader discussion of capture theory, see Viscusi et al., *supra* note 205, at 327-46.

understandably to identify the interest of the public with that of the existing companies on whom it must rely to deliver goods.<sup>210</sup>

Many other scholars have identified capture as a recurring problem in regulated industries.<sup>211</sup> They concur with UCLA emeritus professor of business economics Harold Demsetz's conclusion that "in utility industries, regulation has often been sought because of the inconvenience of competition."<sup>212</sup> The railroad industry provides a particularly egregious example of such capture.<sup>213</sup> The airline industry presents another such example.<sup>214</sup> Both industries used their respective regulators (the Interstate

210. ALFRED E. KAHN, *THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS* 12, 46 (7th ed. 1998).

211. See, e.g., Anthony Downs, *An Economic Theory of Political Action in a Democracy*, 65 J. POL. ECON. 135 (1957); William A. Jordan, *Producer Protection, Prior Market Structure and the Effects of Government Regulation*, 15 J.L. & ECON. 151 (1972); Mark Green & Ralph Nader, *Economic Regulation vs. Competition: Uncle Sam the Monopoly Man*, 82 YALE L.J. 871 (1973); Barry R. Weingast, *Regulation, Reregulation and Deregulation: The Foundation of Agency-Clientele Relationships*, 44 LAW & CONTEMP. PROBS. 147 (1981); Bruce Yandle, *Bootleggers and Baptists: The Education of a Regulatory Economist*, 7 AEI J. GOV'T & SOC'Y 12 (1983); William W. Bratton & Joseph A. McCahery, *Regulatory Competition, Regulatory Capture, and Corporate Self-regulation*, 73 N.C. L. REV. 1861 (1995); Fred S. McChesney, *Rent Extraction and Rent Creation in the Economic Theory of Regulation*, 16 J. LEGAL STUD. 101 (1987); Jean-Jacques Laffont & Jean Tirole, *The Politics of Government Decision-Making: A Theory of Regulatory Capture*, 106 Q.J. ECON. 1089.

212. Harold Demsetz, *Why Regulate Utilities?*, 11 J.L. ECON. 55, 61 (1968).

213. Thomas Frank, *Obama and 'Regulatory Capture'*, WALL ST. J. (June 24, 2009), <http://online.wsj.com/article/SB124580461065744913.html> ("The first federal regulatory agency, the Interstate Commerce Commission, was set up to regulate railroad freight rates in the 1880s. Soon thereafter, Richard Olney, a prominent railroad lawyer, came to Washington to serve as Grover Cleveland's attorney general. Olney's former boss asked him if he would help kill off the hated ICC. Olney's reply, handed down at the very dawn of Big Government, should be regarded as an urtext of the regulatory state: 'The Commission . . . is, or can be made, of great use to the railroads. It satisfies the popular clamor for a government supervision of the railroads, at the same time that that supervision is almost entirely nominal. Further, the older such a commission gets to be, the more inclined it will be found to take the business and railroad view of things . . . . The part of wisdom is not to destroy the Commission, but to utilize it.'").

214. THOMAS K. McCRAW, *PROPHETS OF REGULATION* 263 (1984) ("Clearly, in passing the Civil Aeronautics Act [of 1938], Congress intended to bring stability to airlines. What is not clear is whether the legislature intended to cartelize the industry. Yet this did happen. During the forty years between passage of the act of 1938 and the appointment of [Alfred] Kahn to the CAB chairmanship, the overall effect of board policies tended to freeze the industry more or less in its configuration of 1938. One policy, for example, forbade price competition. Instead the CAB ordinarily required that all carriers flying a certain route charge the same rates for the same class of customer . . . . A second policy had to do with the CAB's stance toward the entry of new companies into the business. Charged by Congress with the duty of ascertaining whether or not 'the public interest, convenience, and necessity' mandated that new carriers should receive a certificate to operate, the board often ruled simply that no applicant met these tests. In fact, over the entire history of the CAB, no new trunkline carrier had been permitted to join the sixteen that existed in 1938. And those

Commerce Commission and the Civil Aeronautics Board) to promote cartelization and market protectionism. When capture occurs, it lessens not only the innovation that would flow from other market entrants and entrepreneurs, but also the innovation of the regulated entity itself, which shifts its focus to controlling the regulatory process and sheltering itself from disruptive change.

One can debate the chicken-and-egg question of which came first—the assignment of utility status or the capture of regulators by special interests—but the inquiry is largely irrelevant. Capture is a recurring problem within such sectors and undercuts traditional “public interest” rationales for intervention.<sup>215</sup> The FCC, by subjecting the telecommunications, electronics, and content-production industries to the Separations Principle, would be exposed to increased rent-seeking behavior by some of the most powerful firms in the world.<sup>216</sup> Given the difficulty of what Wu proposes, the risk of capture should not be underestimated.

## 2. Global Reach and International Competitiveness

It is unclear how Wu’s regime would work for a sector with the global reach of information technology. Companies operating in these sectors often serve a global audience and possess many global affiliates. While these affiliates must conform their business practices to the host country’s laws and norms, the application of the Separations Principle in one country—especially the United States—would have a profound effect on how affected firms do business in many other markets. It would be difficult, for example, to operate a structurally separated enterprise in the United States but maintain a vertically integrated operation in other countries. It would be more likely that affected firms would simply relocate primary operations to countries where firms enjoy a more hospitable regulatory environment and then determine how to deal with importation to markets governed by Wu’s Separations Principle.

---

sixteen, later reduced to ten by a series of mergers, still dominated the industry in the 1970s. All these companies . . . developed into large companies under the protective wing of the CAB. None wanted deregulation.”).

215. David J. Farber & Gerald R. Faulhaber, *Net Neutrality: No One Will Be Satisfied, Everyone Will Complain*, ATLANTIC (Dec. 21, 2010, 7:30AM), <http://www.theatlantic.com/technology/archive/2010/12/net-neutrality-no-one-will-be-satisfied-everyone-will-complain/68326> (“When the FCC asserts regulatory jurisdiction over an area of telecommunications, the dynamic of the industry changes. No longer are customer needs and desires at the forefront of firms’ competitive strategies; rather firms take their competitive battles to the FCC, hoping for a favorable ruling that will translate into a marketplace advantage. Customer needs take second place; regulatory “rent-seeking” becomes the rule of the day, and a previously innovative and vibrant industry becomes a creature of government rule-making.”).

216. Bruce M. Owen, *Communication Policy Reform, Interest Groups, and Legislative Capture* 9 (Stanford Inst. for Econ. Pol’y Research, Discussion Paper No. 11-006, Jan. 18, 2012), available at <http://publicpolicy.stanford.edu/publicationsprofile/2391>.

This makes it clear that Wu's proposed regime could also deleteriously affect the competitiveness of U.S.-based firms who currently operate or export globally. Currently, the United States is a leader in many of the information sectors and Wu's Separations Principle would affect that. It is unlikely that U.S.-based firms, currently considered global leaders in their fields would be able to maintain their global competitive advantage if stripped of the ability to capitalize on the benefits of vertical integration.

### 3. Agency Conflicts and Administrative and Due Process Issues

Wu envisions a regulatory framework where the FCC would be the primary enforcer of the Separations Principle and the FTC and the DOJ would supplement the FCC's oversight.<sup>217</sup> In light of recent Supreme Court decisions, there is reason to doubt that these antitrust agencies could actually exercise this type of oversight. For decades, the Court wrestled with whether an extensive regulatory regime displaces concurrent antitrust lawsuits.<sup>218</sup> Two Supreme Court cases decided in the past 10 years, *Trinko* and *Credit Suisse*, make it much more difficult for the antitrust agencies to bring antitrust cases in regulated industries.<sup>219</sup> Generally, based on these cases, (1) if a regulatory agency has authority to supervise the conduct in question; (2) the agency continuously exercises that authority; and (3) if there is a conflict between the antitrust and regulatory regimes, the FTC and the DOJ cannot bring an antitrust suit regarding that conduct.<sup>220</sup> In both cases, the Court was concerned about non-expert judges and juries erring in competition issues and harming consumer welfare.<sup>221</sup> This is a significant problem since Wu obviously doubts that the FCC, with its checkered past, can objectively exercise its responsibility to keep the buckets separate and not to favor any industry, technology, or firm. If Wu's Principle depends on antitrust oversight from the FTC and the DOJ but they are prohibited from acting under these court decisions, this represents an obstacle to implementing the Separations Principle.

Wu's proposed regulatory paradigm raises other administrative law considerations. As noted, given the power of special interests in gaining

---

217. THE MASTER SWITCH, *supra* note 1, at 312 ("It is inevitable that the FCC will occasionally fail in its mission, and for this reason the government's competition authorities, the Justice Department's Antitrust Division and the Federal Trade Commission, are necessary as a backup.").

218. See *Silver v. NYSE*, 373 U.S. 341, 348-49 (1963) (permitting a private antitrust lawsuit in the securities industry despite the existence of the Securities Exchange Act of 1934); *Otter Tail Power v. United States*, 410 U.S. 366, 372 (1973) (permitting the government's antitrust lawsuit against regulated electric utilities providers).

219. See *Verizon Commc'ns v. Law Offices of Curtis V. Trinko*, 540 U.S. 398, 407 (2004); *Credit Suisse Sec. v. Billing*, 551 U.S. 264, 268 (2007).

220. *Credit Suisse*, 551 U.S. at 277.

221. *Trinko*, 540 U.S. at 414-16; *Credit Suisse*, 551 U.S. at 281-82.

regulatory and congressional favors and the conflicting incentives of some regulators, it is unlikely that an agency like the FCC could restrain itself from putting its thumb on the scales for what it deemed the public interest. One needs to look no further than Wu's book and his other writings to see that regulators are often encouraged to be interventionist. Notably, Wu has advocated informal "agency threats" and the use of "threat regimes" to accomplish policy goals that prove difficult to steer through the formal rulemaking process.<sup>222</sup> His "defense of regulatory threats in particular contexts" is justified as follows:

The use of threats instead of law can be a useful choice—not simply a procedural end run. My argument is that the merits of any regulative modality cannot be determined without reference to the state of the industry being regulated. Threat regimes, I suggest, are important and are best justified when the industry is undergoing rapid change—under conditions of "high uncertainty." Highly informal regimes are most useful, that is, when the agency faces a problem in an environment in which facts are highly unclear and evolving. Examples include periods surrounding a newly invented technology or business model, or a practice about which little is known.<sup>223</sup>

These threat regimes represent a significant departure from traditional democratic norms of accountable governance and limits on the delegation of legislative and regulatory authority.<sup>224</sup> They would also likely constitute a violation of the Administrative Procedures Act. Wu's assumption that threats make even *more* sense in fast-moving high-tech industries also seems counterintuitive and unwise.<sup>225</sup> "Anyone who predicts the technological future is sure soon to seem foolish," notes George Gilder. "It springs from human creativity and thus inevitably consists of surprise."<sup>226</sup> If a given sector finds itself in such a state of high uncertainty, it seems safe to assume that the state of competition and innovation would be dynamic enough that intervention would not be necessary or wise. Those would be the last sectors regulators should be preemptively micromanaging since they lack the requisite knowledge of whether a

---

222. See, e.g., Tim Wu, *Agency Threats*, 60 DUKE L.J. 1841 (2011).

223. *Id.* at 1842.

224. Lars Noah, *Administrative Arm-Twisting in the Shadow of Congressional Delegations of Authority*, 1997 WIS. L. REV. 873 (1997).

225. Wu seems to be guilty of what economist Israel Kirzner referred to as "the shortsightedness of those who, not recognizing the open-ended character of entrepreneurial discovery, repeatedly fall into the trap of forecasting the future against the background of today's expectations rather than against the unknowable background of tomorrow's discoveries." ISRAEL KIRZNER, *DISCOVERY AND THE CAPITALIST PROCESS*, at xi (1985).

226. GEORGE GILDER, *WEALTH AND POVERTY* 101 (1st ed. 1981).



market development will harm or benefit consumers in the long-term. This is especially true as it pertains to technological change and change in information markets.

Wu explicitly rejects the present antitrust model, which generally allows firms and innovators to respond to marketplace demands and developments in an evolutionary way, in favor of government intervention and intimidation:

The [wait-and-see] option . . . may sound attractive because it allows the industry to develop in what might be called a natural way. This approach, however, makes a great sacrifice: the public's interest may be entirely unrepresented during the industry's formative period. The risk is that the industry's norms and business models will, effectively, be set without any public input. Waiting for the industry to settle down may result in undesirable practices that prove extremely hard to reverse or influence with rules issued later. To state the matter more colloquially, the industry may be "baked" by the time there is any real oversight or public input.<sup>227</sup>

Wu does not bother to offer any sort of robust cost-benefit analysis of the probability of such preemptive regulation benefiting consumers versus the probability of some short term harm developing absent such threats.<sup>228</sup>

Regardless, when we marry this vision of regulation-via-intimidation<sup>229</sup> to Wu's Separations Principle,<sup>230</sup> the scope of Wu's ambitions becomes obvious. After implementation, the high-tech sectors begin to resemble a mixed-economy model in which decisions are guided by the supposed wisdom of technocratic regulators.<sup>231</sup> We are asked to believe that such a heavy-handed regime will guide America's high-technology economy down a more innovative path, even if some threats may be necessary to get the job done, and entire segments of the economy must be destroyed and reordered to achieve this vision.<sup>232</sup> It is a breathtaking and radical vision for the future of information technology markets.

#### 4. Fifth Amendment Takings Issues

Wu's Separations Principle would undermine companies' rights to some of their most valuable assets. His plan would likely require the

---

227. Wu, *supra* note 222, at 1850.

228. *See generally id.*

229. *See id.*

230. *See* THE MASTER SWITCH, *supra* note 1, at 304.

231. *Id.*

232. Wu, *supra* note 222, at 1851.

forcible disintegration of information platforms and providers that operate in the three layers of the information economy that Wu wants to keep strictly quarantined. For vertically integrated companies such as Apple or Microsoft, this requirement would have devastating ramifications. Indeed, for any media operator or information platform, being forced to divest assets or being structurally separated could mean the loss of integrative efficiencies, core competencies, and important product lines. Such breakups might also require companies to sacrifice crucial intellectual-property rights.<sup>233</sup> Finally, forcible disintegration could mean the loss of a valued part of the firm's labor force, as well as a significant loss of shareholder value. These losses constitute legal grounds for a takings challenge under the Fifth Amendment.<sup>234</sup>

At a minimum, regulatory proponents should not be surprised when these matters are litigated by affected companies and lengthy legal wrangling ensues.<sup>235</sup> Litigation would further limit innovation by the regulated entities and others in the field, and would likely chill broader industry investment by both the incumbent social media provider and its potential competitors.<sup>236</sup>

## 5. First Amendment Considerations

Wu believes that because information industries "traffic in forms of individual expression" and are so "fundamental to democracy," they should be subject to differential regulatory treatment.<sup>237</sup> He is troubled that the Constitution prohibits the government from limiting free speech but says nothing to prevent private institutions from doing so.

That the information economy comprises the "speech industry" and that private actors operate in many speech-facilitating platforms cannot—at least under a proper understanding of the First Amendment—serve as an excuse for the sort of sweeping regulation Wu desires. Wu's argument contradicts the thrust of the First Amendment, which has traditionally imposed a higher level of legal scrutiny on media-focused regulatory

---

233. See Thomas F. Cotter, *The Essential Facilities Doctrine* 12 (Minn. Legal Studies Research Paper Series, Research Paper No. 08-18, 2008), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1125368](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1125368) ("To the extent governments confer intellectual property rights (IPRs) precisely for the purpose of encouraging such investments, the application of the essential facilities doctrine to IPRs therefore may seem particularly dubious.").

234. RICHARD EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* 74-75 (1985); DAVID L. KASERMAN & JOHN W. MAYO, *GOVERNMENT AND BUSINESS: THE ECONOMICS OF ANTITRUST AND REGULATION* 435 (1995).

235. See Cotter, *supra* note 233, at 14.

236. See *id.* at 12 ("The prospect of obtaining access to the monopolist's facility reduces the plaintiff's incentive to invest in developing its own competing facility, thus perpetuating the monopolist's control over the facility and reducing the prospect of future competition.").

237. THE MASTER SWITCH, *supra* note 1, at 301-02.

efforts. Wu is essentially trying to marry media-access theory to pre-Chicago School antitrust thinking. Media-access theorists believe the rights of listeners—not speakers—are paramount under the First Amendment.<sup>238</sup> They rest their case primarily on some of the ambiguous language from the Supreme Court's controversial 1945 decision in *Associated Press v. United States*, in which the court fashioned a new theory of the First Amendment as the guarantor of a certain amount or type of speech.<sup>239</sup> Many policymakers and media critics have subsequently interpreted this case—as well as the court's decisions in *NBC v. United States*<sup>240</sup> and *Red Lion Broadcasting Co. v. FCC*<sup>241</sup>—as proof that media-ownership regulations and other press controls were demanded by the First Amendment to guarantee a certain level of diversity.<sup>242</sup>

In essence, media-access advocates say that once a given media provider becomes popular enough, everyone has a right to use it and the First Amendment allows the government to mold media in whatever form it wishes. Of course the First Amendment says nothing of the sort. Importantly, Wu makes the bar to government action even lower with his separations regime. Under Wu's paradigm, the fact that information industries “traffic in forms of individual expression” and are so “fundamental to democracy” would open them to almost unlimited structural regulation.<sup>243</sup>

Structural regulations are not purely content-neutral methods of media regulation, however. Christopher S. Yoo has coined the term “architectural censorship” to describe “the tangential, but [important], adverse impact on speech” that structural media regulations can have.<sup>244</sup> By

---

238. Jerome A. Barron, *Access to the Press—A New First Amendment Right*, 80 HARV. L. REV. 1641, 1666 (1967); Owen M. Fiss, *Free Speech and Social Structures*, 71 IOWA L. REV. 1405, 1416 (1986) (arguing that a proper reading of the First Amendment requires “a change in our attitude about the state” such that we learn “to recognize the state not only as an enemy, but also as a friend of speech . . . [that should act] to enhance the quality of public debate.”).

239. *Associated Press v. United States*, 326 U.S. 1, 20 (1945) (concluding that the First Amendment “rests on the assumption that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public, that a free press is a condition of a free society.”).

240. *NBC v. United States*, 319 U.S. 190, 227 (1943).

241. *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 400-01 (1969).

242. ROBERT W. MCCHESENEY & JOHN NICHOLS, *OUR MEDIA, NOT THEIRS: THE DEMOCRATIC STRUGGLE AGAINST A CORPORATE MEDIA* 49 (2002) (“The highly concentrated market makes a mockery of the freedom of press clause in the First Amendment, which was predicated on the ability of citizens to create their own media if they so desire.”).

243. See THE MASTER SWITCH, *supra* note 1, at 301-02.

244. Christopher S. Yoo, *Architectural Censorship and the FCC*, 78 S. CAL. L. REV. 669, 674 (2005).

artificially limiting market structures or outputs, structural controls can limit the quantity and quality of media created.<sup>245</sup>

The danger with media-access mandates—even when they take the form of structural controls—is that they ultimately transform the First Amendment into an affirmative tool of the state that legislators and regulators can wield to control content and influence the editorial judgments of the press. As Justice Owen Roberts presciently warned fifty years ago in his dissenting opinion in *Associated Press v. United States*, the case that helped spawn the media-access movement:

The decree here approved may well be, and I think threatens to be, but a first step in the shackling of the press, which will subvert the constitutional freedom to print or to withhold, to print as and how one's reason or one's interest dictates. When that time comes, the state will be supreme and freedom of the state will have superseded freedom of the individual to print, being responsible before the law for abuse of the high privilege.

It is not protecting a freedom, but confining it, to prescribe where and how and under what conditions one must impart the literary product of his thought and research. This is fettering the press, not striking off its chains.<sup>246</sup>

Wu's separations regime would “fetter the press” along similar lines and significantly expand the horizons of government power over speech-producing and speech-disseminating industries. As a result, First Amendment values are implicated and litigation becomes more likely.

## V. CONCLUSION

Wu's regulatory aims ultimately resemble those from 1950's and 1960's industrial organization theory, which suffered from “[c]asual observations of business behavior . . . , colorful characterizations, eclectic forays into sociology and psychology, descriptive statistics, and verification by plausibility.”<sup>247</sup> Like the industrial organization theories in vogue during that period, Wu's Separations Principle is a proposition “that contradict[s] economic theory”<sup>248</sup> and should be avoided as preemptive remedy to merely speculative societal harms. The information economy today is dynamic and competitive. A Separations Principle that prevents

---

245. Clyde W. Crews Jr., *A Defense of Media Monopoly*, 21 COMM. LAW. 13, 15 (2003) (“Government restrictions on ownership are themselves censorship, and a coercive impediment to speech and a threat to democracy and wide scale expression.”).

246. *Associated Press v. United States*, 326 U.S. 1, 48 (1945) (Roberts, J., dissenting).

247. Posner, *supra* note 32, at 928-29.

248. *Id.* at 929.

and dissolves vertical acquisitions would be substantially detrimental to consumers. Instead, we should embrace a different “separations principle” to guide policy: the preservation of a salutary distance between the state and all layers of the information economy.



**A New Way to Compromise: An  
Analysis of the FCC, CTIA, and  
Consumers Union Bill Shock  
Compromise and its Application to  
Cramming**

**Matthew Friedman**<sup>\*</sup>

TABLE OF CONTENTS

I. INTRODUCTION.....205

II. HISTORY OF COMMISSION PROTECTION OF WIRELESS  
CONSUMERS .....206

*A. Pre-Genachowski Commission Regulatory Approaches.....206*

        1. Chairman Kennard .....206

        2. Chairman Powell.....209

        3. Chairman Martin.....210

*B. Regulatory Actions and Philosophy of the Genachowski  
        Commission .....211*

        1. Bill Shock.....212

        2. Cramming .....216

        3. Improving Consumer Education and Access to  
            Information .....219

---

<sup>\*</sup> Attorney, Technology Law Group. J.D., George Washington University Law School, May 2012; B.S. in Physics and Political Science, Muhlenberg College, 2007. The author would like to thank Natalie Roisman for her guidance in connection with this article and the staff of the Federal Communications Law Journal for their work in helping prepare it for publication. He also thanks his mom and dad for their endless encouragement and support.

III. ANALYSIS OF THE BILL SHOCK COMPROMISE .....	220
A. <i>The Commission’s Authority to Impose the Rules Proposed in the Bill Shock NPRM is Questionable at Best</i> .....	221
B. <i>The Bill Shock Compromise is Too Regulatory in Nature and Does Not Adequately Resolve the Consumer Harms that Exist</i> .....	222
1. The Wireless Industry Agreed to the Bill Shock Compromise Because It Was More Costly to Not Reach a Compromise and Not Because the Compromise Was Good Policy .....	222
2. The Compromise is Unnecessarily Paternalistic, Inadequately Allocates the Costs of Compliance, and Will Ultimately Lead to Increased Costs for Wireless Consumers.....	223
3. The Compromise is an Example of Regulating for Regulation’s Sake that Does Not Adequately Address the Harms to Some Wireless Consumers.....	225
C. <i>Commission Action in Response to Bill Shock Should Have Focused on Deregulatory Solutions that Are More Narrowly Tailored to the Harms Found</i> .....	227
1. The Commission Should Have Taken Enforcement Action Against Unjust and Unreasonable Carrier Behavior Through the Rules and Mechanisms Already in Place .....	227
2. The Commission Should Have Focused More on Adopting Policies Aimed at Working with Industry to Take Advantage of Usage Tracking Tools Already in Place and Increasing Consumer Access to Information.....	228
IV. APPLICATION OF THE BILL SHOCK COMPROMISE TO CRAMMING..	229
V. CONCLUSION .....	232



## I. INTRODUCTION

This article will address the question of what amount of regulation is appropriate to protect consumers of commercial mobile radio services (“CMRS” or “wireless”). Specifically, it focuses on the recent compromise between the wireless industry, Consumers Union, and the Federal Communications Commission (“Commission” or “FCC”), which stemmed from the Commission’s “bill shock” proceeding, and the viability of Commission-industry compromises as a future regulatory tool for protecting wireless consumers. Ultimately, the article concludes that the bill shock compromise is bad policy because it places substantial burdens on the wireless industry and fails to properly allocate the costs of compliance, which will lead to unnecessary costs for consumers. Instead, the Commission should have focused on enforcement against unjust and unreasonable carrier behavior for which the Commission already has authority. The Commission should have adopted policies that are aimed at working with industry to increase consumer choice and access to information, and narrowly tailored its solutions to concrete harms. While this paper concludes that in the case of bill shock, the compromise was bad policy, it nevertheless makes the argument that this style of Commission-industry compromise could be a useful regulatory mechanism for protecting consumers on issues such as cramming—as long as the outlined industry commitments are narrowly focused on the issue of informing and educating consumers.

In order to get a sense of past Commission actions, Part II of this paper first discusses the regulatory approaches and strategies relied on by prior Commissions to protect wireless telecommunications consumers. Second, it examines the regulatory philosophy of the Commission under Chairman Genachowski with regard to consumer protection. This discussion focuses primarily on the series of Commission actions regarding the issues of bill shock and cramming that culminated in a compromise where the wireless industry agreed to provide free and automatic alerts to consumers when their data, text and minute usage approaches and reaches capped levels. In Part III, the article analyzes whether the bill shock compromise is a wise policy mechanism for protecting wireless consumers from the harms of bill shock by examining whether these perceived consumer harms are actual harms, whether the costs of compliance were distributed efficiently, and whether the compromise will effectively remedy the consumer harms that do exist. It concludes that the costs of the compromise outweigh the benefits and therefore it is not a good policy. Finally, Part IV considers the merits of applying a similar Commission-industry compromise solution to the Commission’s pending bill cramming proceeding and finds that such an approach is advisable to the extent that any actions required by industry are narrowly focused on informing and educating consumers.

## II. HISTORY OF COMMISSION PROTECTION OF WIRELESS CONSUMERS

The Communications Act of 1934 (“the Act”), as amended, created the Commission and authorized it, under Title II, to regulate common carriers and ensure that “[a]ll charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable . . . .”<sup>1</sup> Throughout its history, the Commission has relied upon Title II and other authority to take measures to protect consumers, although its philosophy regarding the proper amount and breadth of the regulations has varied over time. An examination of previous consumer protection policies and regulations utilized by the Commission is helpful in determining the merits of the Commission’s bill shock compromise under Chairman Julius Genachowski. This examination will provide meaningful information regarding the state of the wireless regulatory environment when the compromise was reached, as well as highlight the successes and failures of past approaches from which lessons can be learned.

### A. *Pre-Genachowski Commission Regulatory Approaches*

Since the passage of the Telecommunications Act of 1996 (“the 1996 Act”) and the rollout in 1998 of the “bucket of minutes” concept that dominates the post-paid wireless marketplace today, four individuals—two Democrats and two Republicans—have been nominated by the President, confirmed by the Senate, and served as Chairman of the Commission.<sup>2</sup> The structure and extent of the policies and regulations implemented by the Commission have been intricately linked to the regulatory philosophy and political affiliation of the Chairman who adopted them. Accordingly, past consumer protection actions are best examined in light of the Chairman implementing them.

#### 1. Chairman Kennard

William Kennard, a Democrat appointed by President Clinton, served as Commission Chairman from November 1997 to January 2001, during

---

1. Communications Act of 1934, ch. 652, § 201(b), 48 Stat. 1064, 1070 (codified as amended at scattered sections 47 U.S.C.).

2. See *Commissioners from 1934 to Present*, FCC, <http://transition.fcc.gov/commissioners/commish-list.html> (last updated Jan. 3, 2012) [hereinafter *FCC Commissioners*]. This excludes Acting Chairman Copps, who served on an interim basis between Chairman Martin and Chairman Genachowski. See also *History of Wireless Communications, Wireless Timeline 1977-1999*, CTIA, [http://www.ctia.org/media/industry\\_info/index.cfm/AID/10388](http://www.ctia.org/media/industry_info/index.cfm/AID/10388) (last updated Jan. 2013).

the implementation of the 1996 Act.<sup>3</sup> Although he is a Democrat, and might have been expected to have a more regulation-oriented philosophy, Chairman Kennard stressed that “[a] business solution to a business problem is always better than a regulatory solution to a business problem,”<sup>4</sup> and according to the Commission itself, he “shaped policies that created an explosion of new wireless phones.”<sup>5</sup> However, Chairman Kennard’s deregulatory philosophy was not unbridled. He considered protecting consumers to be one of six key responsibilities of the Commission in the post-1996 Act regulatory environment,<sup>6</sup> and acknowledged that “not all competitors are scrupulous, and not all means of garnering competitive advantages are fair to consumers, especially those consumers who are used to obtaining telecommunications services from regulated monopolists.”<sup>7</sup> In implementing policies to protect telecommunications consumers, Chairman Kennard focused primarily on the issues of cramming—which involves unauthorized, misleading, or deceptive charges on a consumer’s telephone bill—and truth-in-billing. The Chairman’s efforts established the regulatory base that eventually led to the bill shock compromise.<sup>8</sup>

During a meeting convened by Chairman Kennard in May 1998, local exchange carriers (“LECs”) and providers of billing and collection services worked with the Commission to address the problem of cramming.<sup>9</sup> Following the meeting, the Commission promulgated a voluntary code of “best practices” designed to prevent the type of charges associated with cramming.<sup>10</sup> The code was not legally enforceable on the consenting parties and only applied to charges by third parties to wireline LECs (not mobile providers) for inclusion on consumers’ local telephone bills. These best practices focused primarily on (1) ensuring that bills were complete and comprehensible; (2) ensuring that consumers had the information necessary to discuss or dispute charges; (3) providing consumers control over whether or not a third party’s products and services are charged on their telephone bills; and (4) establishing procedures for screening products, services, and service providers prior to approval for inclusion on a bill.<sup>11</sup> Further, the Commission educated consumers about the importance of reviewing their telephone bills and provided assistance

---

3. See *Biography of William Kennard*, FCC, <http://transition.fcc.gov/commissioners/previous/kennard/biography.html> (last updated Mar. 18, 2005) [hereinafter *Kennard Biography*].

4. Erwin G. Krasnow & M. Wayne Milstead, *FCC Regulation and Other Oxymorons Revisited*, 7 MEDIA L. & POL’Y 7, 11 (1999).

5. *Kennard Biography*, *supra* note 3.

6. Victor Rivero, *Giving the Telecosm*, GOV’T TECH. (Dec. 31, 2008) <http://www.govtech.com/magazines/gt/Giving-the-Telecosm.html>.

7. *Id.*

8. See *Anti-Cramming Best Practices Guidelines*, FCC, [http://transition.fcc.gov/Bureaus/Common\\_Carrier/Other/cramming/cramming.html](http://transition.fcc.gov/Bureaus/Common_Carrier/Other/cramming/cramming.html).

9. See *id.*

10. See *id.*

11. See *id.*

with understanding these bills.<sup>12</sup> Through this action, the Commission, which had processed on average more than 300 complaints each month from consumers claiming to have been crammed,<sup>13</sup> took affirmative, but narrowly tailored, steps. The Commission anticipated that these new efforts would limit unfair or deceptive marketing and billing practices, as well as assist consumers with recognizing improper charges before any payment is made, but would not unnecessarily burden the nascent mobile industry.<sup>14</sup>

Less than a year later, in April 1999, the Commission took further action to protect consumers in its “truth-in-billing” proceeding. Relying on its authority under section 201(b) of the Act,<sup>15</sup> as well as section 258,<sup>16</sup> which prohibits “slamming” (changing a subscriber’s selection of a provider of wireline telephone service without that subscriber’s knowledge or permission), the FCC adopted broad and flexible, but binding, principles to promote truth-in-billing.<sup>17</sup> The *First Truth-in-Billing Report and Order* required that “(1) the name of the service provider associated with each charge must be clearly identified; (2) charges must be separated by service provider; and (3) clear and conspicuous notification of any change in service provider must be made manifest.”<sup>18</sup> The Commission claimed that the guidelines enhanced the ability of consumers to review individual charges and facilitated the detection of unauthorized charges and changes.<sup>19</sup> In essence, the Commission focused on empowering consumers by ensuring that they had access to non-misleading information in a clear and well-organized manner so that they could ensure that all charges were legitimate. However, the Commission explicitly rejected adopting these rules in the mobile environment, finding that the record did not indicate a failure in providing wireless consumers with the clear and non-misleading information required to make informed choices.<sup>20</sup>

Despite the fact that these two consumer protection mechanisms exempted wireless providers, they were the building blocks for additional regulations and proposed rules such as the bill shock compromise and the Genachowski Commission’s *Cramming NPRM*, which have major ramifications for wireless providers. Further, these mechanisms play a

---

12. See Press Release, Statement of William Kennard, Chairman, FCC, on the Release of Local Exchange Company Best Practices to Combat “Cramming,” FCC (Jul. 22, 1998), available at [http://transition.fcc.gov/Bureaus/Common\\_Carrier/News\\_Releases/1998/nrcc8050.html](http://transition.fcc.gov/Bureaus/Common_Carrier/News_Releases/1998/nrcc8050.html).

13. See *id.*

14. See *id.*

15. 47 U.S.C. § 201(b) (2006).

16. *Id.* § 258.

17. See Truth-in-Billing and Billing Format, *First Report and Order and Further Notice of Proposed Rulemaking*, FCC 99-72, para. 17 (1999) [hereinafter *First Truth-in-Billing Report and Order*], available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-99-72A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-99-72A1.pdf).

18. *Id.* at para. 28.

19. See *id.* at para. 29.

20. See *id.* at para. 16.

critical role in analyzing the viability of Commission-industry compromises as a regulatory tool by giving an example of how successful alternative, less burdensome approaches have been.

## 2. Chairman Powell

With the election of George W. Bush as President in 2001, Michael Powell was chosen to replace Chairman Kennard. Powell, a Republican, had served as a FCC Commissioner since 1997, and served as Chairman from January 2001 through March 2005.<sup>21</sup> Like Chairman Kennard, and as is generally expected from Republicans, Chairman Powell also employed a deregulatory philosophy that focused on market-driven solutions.<sup>22</sup> In his first public appearance as Chairman, Powell labeled prolonged uncertainty to be the greatest enemy of regulation and cautioned that three of five unelected and unaccountable officials on the Commission should not be making judgments about where a citizen's thoughts, energies, and family time should be directed.<sup>23</sup>

Fundamentally, Chairman Powell believed that regulation limits consumer choice,<sup>24</sup> and that the efficient use of market mechanisms would lead to maximized consumer welfare.<sup>25</sup> However, he did recognize that sometimes regulation is necessary to protect consumers. For example, under Chairman Powell, the Commission established the "Do Not Call" registry, which made it easier and more efficient for consumers to stop telemarketing calls,<sup>26</sup> and the Commission implemented number portability regulations requiring wireless carriers to allow consumers to maintain their phone numbers even when switching carriers.<sup>27</sup>

Additionally, Chairman Powell made policy with regards to "truth-in-billing," by extending the broad, binding rules applied to wireline providers during the Kennard Commission to mobile providers.<sup>28</sup> In the

---

21. *FCC Commissioners*, *supra* note 2.

22. *See Biography of Michael K. Powell*, FCC, <http://transition.fcc.gov/commissioners/previous/powell/biography.html> (last updated Mar. 18, 2005).

23. *See* Raymond L. Fischer, *What Lies Ahead for the Federal Communications Commission?*, USA TODAY (SOC'Y FOR ADVANCEMENT EDUC.), Jan. 2002.

24. *See Michael Powell Biography*, THE HISTORY-MAKERS, <http://www.thehistorymakers.com/biography/michael-powell-41> (last accessed Oct. 3, 2012).

25. *See NewsHour with Jim Lehrer: Interview with FCC Chairman Powell* (PBS television broadcast Aug. 9, 2001) available at [http://www.pbs.org/newshour/bb/media/july-dec01/powell\\_8-9.html](http://www.pbs.org/newshour/bb/media/july-dec01/powell_8-9.html).

26. *See* Press Release, Fed. Trade Comm'n, National Do Not Call Registry Opens (June 27, 2003), available at <http://www.ftc.gov/opa/2003/06/donotcall.shtm>.

27. *See generally* Tel. No. Portability, *Memorandum Opinion and Order*, FCC 03-237 (2003), available at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-237A1.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-03-237A1.pdf).

28. *See Truth-in-Billing and Billing Format, Second Report and Order, Declaratory Ruling, and Second Further Notice of Proposed Rulemaking*, FCC 05-55, para. 16 (2005) [hereinafter *Second Truth-in-Billing Report and Order*], available at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/FCC-05-55A1.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-05-55A1.pdf).

*Second Truth-in-Billing Report and Order*, the Commission noted a significant increase in complaints regarding wireless “billing & rates” and “marketing & advertising,” and found that exempting mobile providers from the requirements that billing descriptions be “brief, clear, non-misleading and in plain language” no longer met the statutory criteria for forbearance required by section 10.<sup>29</sup> In making this finding, the Commission emphasized its belief that this requirement would not constitute a substantial new regulatory burden on wireless providers.<sup>30</sup> Further, the Commission rejected the contention that CMRS providers should be exempted solely because they operate in a competitive marketplace and emphasized the critical nature of accurate billing information in allowing consumers to receive the full benefits of a competitive marketplace.<sup>31</sup> Similar to the “Do Not Call” registry and the number portability rules, these regulations were restrictive in that they placed limits on industry’s unfettered discretion to act as they pleased, regardless of the fairness or reasonableness of their actions. However, these regulations were adopted and implemented in a way that promoted consumer choice and empowerment, rather than mandating specific, affirmative actions to be taken by the wireless industry. This is a fundamental difference from the paternalistic approach the Genachowski Commission would adopt in the bill shock compromise with industry that requires overly burdensome actions on the part of wireless providers regardless of whether consumers believe it is in their best interest to receive these alerts. Part III of this paper will focus on this difference.

### 3. Chairman Martin

In early 2005, Chairman Powell resigned and President George W. Bush appointed Kevin Martin, who had been serving as a Commissioner since 2001, to replace him.<sup>32</sup> Martin, a Republican, served as FCC Chairman from 2005 until 2009.<sup>33</sup> Upon his resignation, Martin said his goal at the Commission “had been to ‘pursue deregulation while paying close attention to its impact on consumers and the particulars of a given market, to balance deregulation with consumer protection.’”<sup>34</sup> His deregulatory approach was especially perceptible with regard to truth-in-billing and cramming, as he took no actions to further either set of rules.<sup>35</sup>

---

29. *See id.* at paras. 16, 18.

30. *See id.* at para. 19.

31. *See id.* at paras. 16, 18.

32. *See FCC Commissioners*, *supra* note 2.

33. *Id.*

34. Sam Gustin, *Can You Hear Me Now? FCC Launches Shot Across Big Telecom’s Bow*, Daily Finance (Aug. 27, 2009, 6:00 PM), <http://www.dailyfinance.com/2009/08/27/can-you-hear-me-now-fcc-launches-shot-across-big-telecoms-bow>.

35. *See Truth-In-Billing Policy: Major Truth-In-Billing Orders and Notices*, FCC, <http://transition.fcc.gov/cgb/policy/truthinbill.html> (last updated Dec. 20, 2010).

Chairmen Kennard, Powell, and Martin each believed that a deregulatory philosophy with regards to wireless was best. The consumer protection policies and mechanisms established under these Chairmen were narrowly tailored to specific industry practices they believed were unjust and unreasonable, and the policies focused on empowering consumers to make choices, which allowed the wireless industry to thrive.<sup>36</sup> However, with the appointment of a new chairman, Julius Genachowski, by President Barack Obama, the Commission's deregulatory approach toward protecting wireless consumers, which had previously endured across Chairmen of both political parties since the passing of the 1996 Act, has drastically changed.

### *B. Regulatory Actions and Philosophy of the Genachowski Commission*

In August 2009, less than two months after Genachowski became Chairman, the Commission released a Notice of Inquiry ("NOI") to "examine whether there are opportunities to protect and empower consumers by ensuring sufficient access to relevant information about communications services."<sup>37</sup> The Commission noted that protecting and empowering consumers is one of its core responsibilities, that it had been four years since the record on consumer information issues had last been refreshed, and that technological advances in those years had benefited consumers in many ways, but also may have generated new sources of information for consumers to digest that create uncertainty and confusion.<sup>38</sup> Further, the Commission requested comment on "how to provide consumers with better access to clear, easily understandable information they need to choose a provider, to choose a service plan, manage use of the service plan, and decide whether and when to switch an existing provider or plan."<sup>39</sup>

Comments submitted in response to the *Consumer Information and Disclosure NOI* were mixed. CTIA, the wireless industry's advocacy association, as well as wireless carriers such as Verizon Wireless, AT&T, and Sprint, contended that the competitive nature of the wireless industry ensured that carrier billing practices were responsive to consumer needs.<sup>40</sup>

---

36. See CTIA—THE WIRELESS ASS'N, CONSUMER PROTECTION STANDARDS, available at [http://files.ctia.org/pdf/121010\\_Consumer\\_Protection\\_Standards.pdf](http://files.ctia.org/pdf/121010_Consumer_Protection_Standards.pdf) ("In the absence of harmful prescriptive regulation, wireless customer satisfaction continues to climb.").

37. Consumer Information and Disclosure, *Notice of Inquiry*, FCC 09-68, para. 17 (2009) [hereinafter *Consumer Information and Disclosure NOI*], available at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/FCC-09-68A1\\_Rcd.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-09-68A1_Rcd.pdf).

38. *Id.* at paras. 2-3.

39. *Id.* at para. 16.

40. See Comments of CTIA—The Wireless Ass'n at 2, Truth-in-Billing and Billing Format, FCC CC Docket No. 98-170 (rel. Oct. 14, 2009) (citing *Scores by Industry, Wireless Telephone Service*, THE AMERICAN CUSTOMER SATISFACTION INDEX,

Therefore, they argued, further regulation is unnecessary and would “disrupt the equilibrium . . . that has led to record high customer satisfaction levels.”<sup>41</sup> On the other hand, Consumers Union, a public interest group, argued that substantial changes to the Commission’s rules were necessary to remedy consumer confusion and frustration when choosing a service provider and plan, using a carrier’s services, and receiving bills that were higher than expected.<sup>42</sup>

## 1. Bill Shock

Ultimately, the Commission decided to inquire further into measures designed to assist US wireless consumers in avoiding “bill shock,” the “sudden and unexpected increase in [a mobile wireless user’s] monthly bill that is not caused by a change in service plans.”<sup>43</sup> In May 2010, the Commission released a Public Notice that sought to gather information “on the feasibility of instituting usage alerts and cut-off mechanisms similar to those required under the [European Union] regulations that would provide wireless voice, text, and data consumers in the United States a way to monitor, on a real-time basis, their usage of a wireless communications service, as well as the various charges they may incur in connection with such usage (e.g., roaming services, voice service “minute plans,” text message plans).”<sup>44</sup>

After comments and reply comments on the Public Notice had been received, the Commission again took action with regard to bill shock. In

---

[http://www.theacsi.org/index.php?option=com\\_content&view=article&id=147&catid=14&Itemid=212&i=Wireless+Telephone+Service&sort=Y2009&order=ASC](http://www.theacsi.org/index.php?option=com_content&view=article&id=147&catid=14&Itemid=212&i=Wireless+Telephone+Service&sort=Y2009&order=ASC) (last visited Oct. 4, 2012)). See generally Comments of Verizon & Verizon Wireless, Truth-in-Billing and Billing Format, FCC CC Docket No. 98-170 (rel. Oct. 14, 2009); Reply Comments of AT&T, Inc., Truth-in-Billing and Billing Format, FCC CC Docket No. 98-170 (rel. Oct. 29, 2009); Comments of Sprint Nextel Corp., Truth-in-Billing and Billing Format, FCC CC Docket No. 98-170 (rel. Oct. 14, 2009).

41. Comments of CTIA, *supra* note 40, at 2.

42. See Comments of Consumer Fed’n of Am., Consumers Union, Free Press, Media Access Project, New Am. Found. & Public Knowledge at 2, Truth-in-Billing and Billing Format, FCC CC Docket No. 98-170 (rel. Oct. 14, 2009).

43. *Bill Shock*, FCC (Feb. 10, 2011), <http://www.fcc.gov/topic/bill-shock>.

44. Comment Sought on Measures Designed to Assist U.S. Wireless Consumers to Avoid “Bill Shock,” *Public Notice*, DA 10-803, at 2 (CGB 2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-10-803A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-10-803A1.pdf). The EU regulations require that, when a wireless consumer places a voice call or text message in an EU market other than the consumer’s home market, the consumer’s home market provider must send to the consumer, free of charge, a text message detailing roaming prices for sending and receiving voice calls and text messages. Further, the EU regulations require that wireless providers notify a consumer using a data roaming service when the consumer has reached 80 percent of an agreed upon limit, and, when a consumer exceeds the established monetary or volume roaming limit, the provider must send another notification explaining the applicable costs and procedures if the consumer wishes to continue using the roaming data service. At that point, pending further instruction from the consumer, the provider must cease providing the service.



mid-October 2010, the Commission's Consumer and Governmental Affairs Bureau ("CGB") released a white paper, which discussed two national surveys that found bill shock to be common.<sup>45</sup> The first study conducted by the Government Accountability Office ("GAO"), reported that "34 percent of wireless phone users responsible for paying for their services received unexpected charges on their bills in 2008 and early 2009."<sup>46</sup> The second study, conducted by the FCC, "found that 17 percent of all Americans with cell phones . . . had experienced a sudden increase in their bill that occurred even when they had not changed their calling or texting plan."<sup>47</sup> CGB also listed what it believed to be the most prevalent circumstances causing wireless consumers to suffer from bill shock. The following items were identified: (1) international roaming charges that consumers can run up without realizing it, and that can add up to thousands of dollars; (2) charges that accrue when consumers exceed the limits on their voice, text, or data plans, and begin accumulating high charges at a per-minute rate; (3) unexpected charges when a phone is used with Wi-Fi in airplane mode; (4) charges for mandatory data plans that are included with new phones and plans without consumers being aware; (5) taxes and other fees of which a consumer was not aware; and (6) confusion about promotional rates, plans, and billing – including unclear or inconsistent guidance from salespeople and customer service representatives.<sup>48</sup>

Shortly after releasing the white paper, the Commission issued a notice of proposed rulemaking ("NPRM") that found that mobile carriers were failing to provide complete information to consumers on the cost and usage management tools available to them and that the usage alerts being provided were inconsistently applied across carriers and service plans.<sup>49</sup> To remedy this, the *Bill Shock NPRM* proposed that mobile service providers be required to provide usage alerts.<sup>50</sup> Specifically, it proposed that mobile service providers "provide notification when a subscriber is approaching their plan's allotted limit for voice, text, or data usage,"<sup>51</sup> "supply a notification message to consumers once they reach their monthly allotment limit and begin incurring overage charges,"<sup>52</sup> and "supply a notification message to consumers when they are about to incur international or other roaming charges in excess of their normal rates."<sup>53</sup>

---

45. See FCC, CONSUMER AND GOVERNMENTAL AFFAIRS BUREAU WHITE PAPER ON BILL SHOCK 3 (Oct. 13, 2010) [hereinafter BILL SHOCK WHITE PAPER], available at <http://transition.fcc.gov/stage/Bill-Shock-White-Paper.pdf>.

46. *Id.*

47. *Id.*

48. See *id.* at 2-3.

49. See Empowering Consumers to Avoid Bill Shock, *Notice of Proposed Rulemaking*, FCC 10-180, paras. 16-17 (2010) [hereinafter *Bill Shock NPRM*], available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-10-180A1\\_Rcd.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-180A1_Rcd.pdf).

50. See *id.* at para. 1.

51. *Id.* at para. 20.

52. *Id.* at para. 21.

53. *Id.* at para. 22.

Similar to the comments in response to the *Consumer Information and Disclosure NOI*, responses to the *Bill Shock NPRM* were mixed. CTIA and the wireless providers stressed that instead of imposing carrier mandates, the Commission should work with the carriers to make consumers better aware of the myriad of tools available to manage their accounts.<sup>54</sup> CTIA noted that its carriers, which provide wireless services to 93 percent of US wireless consumers,<sup>55</sup> currently offer tools to consumers such as shortcuts and websites, alerts and cut-off mechanisms, parental controls, account management and usage monitoring applications, and international voice and data usage monitoring tools that enable consumers to monitor their account activities directly on both the device and the web.<sup>56</sup> Further, CTIA stressed that the proposed rules would create substantial implementation challenges for carriers, to the detriment of consumers and the public interest, because the costs of implementing any alert system would inevitably be passed on to consumers and because the consistent transmission of “real-time” alerts for voice, text and data services is technologically infeasible.<sup>57</sup> CTIA also argued that the proposed regulations would harm competition, significantly curtail provider flexibility, and should therefore be avoided.<sup>58</sup>

Meanwhile, the consumer advocates contended that unexpectedly high charges affect millions of consumers and that additional protection mechanisms were needed to minimize further harm to consumers.<sup>59</sup> They agreed with the Commission that “notifications should be provided in ‘real-time,’ at 80 and 100 percent usage thresholds of an allotted service (voice, text, or data) to all lines associated with an account”<sup>60</sup> and argued that these notifications would go a long way in remedying the problem of bill shock.<sup>61</sup> However, the consumer advocates believed the Commission’s proposal did not go far enough to protect consumers fully. They urged the Commission to require that subscribers affirmatively ‘opt-in’ to any

---

54. Comments of CTIA—The Wireless Ass’n at 5, Empowering Consumers to Avoid Bill Shock, FCC CG Docket No. 10-207 (rel. Jan. 10, 2011) [hereinafter CTIA Bill Shock NPRM Comments].

55. *Id.* at 8. This figure is now 97 percent. See Press Release, CTIA, FCC and Consumers Union Announce Free Alerts to Help Consumers Avoid Unexpected Overage Charges (Oct. 17, 2011) [hereinafter CTIA Bill Shock Compromise News Release], available at <http://www.ctia.org/media/press/body.cfm/prid/2137>.

56. See CTIA Bill Shock NPRM Comments, *supra* note 54, at 9-14.

57. See *id.* at 31-32.

58. See *id.* at 34.

59. See Comments of Ctr. for Media Justice, Consumer Action, Consumer Fed’n of Am., Consumers Union, Free Press, Media Access Project, Nat’l Consumers League, Nat’l Hispanic Media Coal. & New Am. Found. Open Tech. Initiative in Response to NPRM at 1, Empowering Consumers to Avoid Bill Shock, FCC CG Docket No. 10-207 (rel. Jan. 10, 2011) [hereinafter Public Interest Group Bill Shock NPRM Comments].

60. *Id.* at 3.

61. See *id.* at 7.

additional fees from exceeding their plans or roaming internationally, before they can be charged.<sup>62</sup>

Ultimately though, rather than the Commission adopting an order implementing the rules proposed in the NPRM, the issue of bill shock was resolved, at least for the time being, through a compromise between the FCC, CTIA, and Consumers Union.<sup>63</sup> The compromise became section eleven of CTIA's "Consumer Code for Wireless Service," and providers serving more than 97 percent of wireless consumers in the U.S. agreed to abide by it.<sup>64</sup> The agreement specifically provides that

Each wireless provider will provide, at no charge: (a) a notification to consumers of currently-offered and future domestic wireless plans that include limited data allowances when consumers approach and exceed their allowance for data usage and will incur overage charges; (b) a notification to consumers of currently-offered and future domestic voice and messaging plans that include limited voice and messaging allowances when consumers approach and exceed their allowance for those services and will incur overage charges; and (c) a notification to consumers without an international roaming plan/package whose devices have registered abroad and who may incur charges for international usage. Wireless providers will generate the notifications described above to postpaid consumers based on information available at the time the notification is sent.<sup>65</sup>

Further, participating carriers agreed to provide two of the four notifications for data, voice, text, and international roaming to all subscribers by October 17, 2012, and all of the alerts by April 17, 2013, unless a subscriber affirmatively opts out of the plan,<sup>66</sup> as well as to "clearly and conspicuously disclose tools or services that enable consumers to track, monitor and/or set limits on voice, messaging and data usage."<sup>67</sup>

The FCC intends to take a "trust, but verify" approach moving forward, in which it will put its rulemaking on hold while ensuring that the

---

62. *See id.* at 2.

63. *See* Julius Genachowski, Chairman, FCC, Announcement at the Bill Shock Event at the Brookings Institution 2 (Oct. 17, 2011) [hereinafter Genachowski Bill Shock Announcement] (transcript on file with the FED. COMM. L. J.).

64. *See* CTIA Bill Shock Compromise News Release, *supra* note 55, at 1.

65. CTIA, CONSUMER CODE FOR WIRELESS SERVICE § 11 (2011) [hereinafter CTIA WIRELESS CODE], available at [http://files.ctia.org/pdf/The\\_Code.pdf](http://files.ctia.org/pdf/The_Code.pdf).

66. Press Release, CTIA—The Wireless Ass'n, Federal Communications Commission and Consumers Union Announce Free Alerts to Help Consumers Avoid Unexpected Overage Charges, CTIA (Oct. 17, 2011), available at <http://www.ctia.org/media/press/body.cfm/prid/2137>.

67. CTIA WIRELESS CODE, *supra* note 65, § 11.

carriers provide the promised alerts.<sup>68</sup> The Commission, with the assistance of Consumers Union, can detect noncompliance through a web portal hosted on the FCC's website that will track whether carriers have complied with their obligations. If a carrier has not complied, the Commission will take further action.<sup>69</sup> Thus, this compromise by the wireless industry, in essence, concedes to the Commission nearly all the rules the agency contemplated imposing through the Administrative Procedures Act-mandated rulemaking process, absent extremely detailed specifics such as alerts being sent at 80 percent and 100 percent of the data, text and minute limits. Accordingly, as Part III of this paper explains, this compromise really serves as a binding regulation that improperly distributes the costs of complying with the rules. Therefore, as CTIA highlighted in its *Bill Shock NPRM* comments,<sup>70</sup> it is an unwise policy that restricts industry flexibility, ignores the myriad of tools for tracking consumer usage that are already available, and unnecessarily causes wireless providers to assume extra costs that will ultimately be passed along to consumers in the form of increased prices.

## 2. Cramming

In addition to addressing bill shock, the Genachowski Commission has shown an intention to protect wireless consumers by regulating cramming, as well as taking action against other billing practices it deems unfair and unreasonable. In its *Consumer Information and Disclosure NOI*, the Commission specifically addressed the issue of cramming, requesting comment on the "extent to which cramming remains a problem for consumers," despite the anti-cramming best practices guidelines that were already adopted by the Kennard Commission.<sup>71</sup> Further, the Commission sought information on the billing practices of CMRS carriers, including whether and how they include charges for services rendered by third parties.<sup>72</sup> In response, several regulatory and law enforcement entities, as well as consumer organizations, stated that unauthorized charges continue to be a substantial problem for consumers, who often have difficulty detecting unauthorized charges on their bills, especially when the dollar amounts of the charges are low.<sup>73</sup> Industry representatives contended that they have safeguards in place, such as "taking corrective measures against

---

68. Genachowski Bill Shock Announcement, *supra* note 63, at 2.

69. *Id.*

70. See generally CTIA Bill Shock NPRM Comments, *supra* note 54.

71. Consumer Info. & Disclosure, *Notice of Inquiry*, FCC 09-68, para. 41 (2009), available at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/FCC-09-68A1\\_Rcd.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-09-68A1_Rcd.pdf).

72. *Id.*

73. Empowering Consumers to Prevent and Detect Billing for Unauthorized Charges ("Cramming"), *Notice of Proposed Rulemaking*, FCC 11-106, para. 15 (2011) [hereinafter *Cramming NPRM*], [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-11-106A1\\_Rcd.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-106A1_Rcd.pdf).

third-party billers that exceed specified complaint levels, . . . offering blocking options, and expeditiously resolving complaints relating to disputed charges,” and that all carriers have incentives to protect subscribers from unauthorized charges that make regulatory mandates unnecessary.<sup>74</sup>

In October 2010, the Commission’s Enforcement Bureau entered into a consent decree with Verizon Wireless—which has the same force and effect as a Commission order—over data usage charges that the Bureau contended violated section 201(b) of the Act and the Commission’s truth-in-billing rules.<sup>75</sup> The Enforcement Bureau’s investigation, which was conducted in response to consumer complaints and press reports that some Verizon Wireless customers had observed unexpected data charges on their bills, focused on the incorrect billing that stemmed from Verizon Wireless’s \$1.99 per megabyte data usage charge for certain pay-as-you-go customers (“Paygo Customers”).<sup>76</sup>

Ultimately, the Consent Decree requires that, in consideration for the Commission agreeing to terminate its investigation, Verizon Wireless must: 1) make a good faith effort to refund incorrect \$1.99 per megabyte charges to affected customers, totaling approximately \$52.8 million; 2) implement specific mechanisms and provide certain materials to inform customers about the credit/refund plan; 3) develop for all customer service employees additional training materials relating to data charges for Paygo customers; 4) train all customer service employees on the range of data usage options, including data blocks, and on resolving Paygo customer complaints related to data usage; 5) establish a Data Charge Task Force (“Task Force”) and specify a Task Force leader who will review customer appeals of refund denials, address issues regarding complaints from Paygo customers brought to their attention, and ensure that customer service employees are notified of any widespread or systemic billing errors relating to per MB data usage charges; 6) provide a plain-language description of: (i) the circumstances under which a Paygo customer may incur a \$1.99 per MB charge for data usage; (ii) whether the charge is imposed for application downloads; (iii) whether the charge is imposed for browsing or other data usage; (iv) how customers may get additional information about the basis for data usage charges (e.g., by phone or online); (v) the free tools that are available both online and on the wireless device for tracking data usage (e.g., the MyVerizon usage meter that provides the amount of data usage incurred during a bill cycle, and the #DATA feature that provides data usage information to customers directly on their devices); and (vi) the availability and location of an online bill tutorial; and 7) include in an easily-

---

74. *Id.* at para. 17.

75. *See* Verizon Wireless Data Usage Charges, *Consent Decree*, DA 10-2068 (EB 2010) [hereinafter *Verizon Wireless Consent Decree*], available at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/DA-10-2068A2\\_Rcd.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/DA-10-2068A2_Rcd.pdf).

76. *Id.* at para. 2.

identifiable location on its website an online video tutorial explaining in detail the types of charges that may be reflected on customer bills and how customers can obtain additional information about such charges and their bills.<sup>77</sup>

Accordingly, the Genachowski Commission has successfully relied on its enforcement authority to protect consumers of wireless services by obtaining key concessions and enforceable promises from wireless carriers that act unjustly and unreasonably.

In July 2011, the Commission further issued an NPRM where it “proposed rules designed to assist consumers in detecting and preventing the placement of unauthorized charges on their telephone bills,” i.e., cramming.<sup>78</sup> For mobile providers, the Commission proposed a requirement that “telephone bills and carriers’ websites include a clear and conspicuous statement indicating that consumer inquiries and complaints may be submitted to the Commission and provide the Commission’s contact information for the submission of complaints.”<sup>79</sup> Further, the Commission requested comment on whether any of the rules proposed for wireline carriers should also be applied to the CMRS carriers.<sup>80</sup>

CTIA and the wireless industry responded that the Commission should refrain from imposing new wireless cramming mandates—and instead support voluntary industry efforts to prevent cramming—because the Commission lacks the authority to adopt the proposals included in the NPRM; there is no evidence that cramming is a widespread problem in the wireless industry; and the wireless industry competes vigorously on the basis of their customer service offerings and billing policies, which protects consumers.<sup>81</sup> Others, such as the consumer advocacy organizations, stated that the Commission should require: that consumers opt-in to receive third-party charges regardless of the technology; that all providers must separate third-party charges on bills from the provider’s charges; that all providers include on their website and in their telephone bills a notice that consumers may file complaints with the Commission; that all carriers provide accurate contact information for third-party vendors on their telephone bills; and that all providers screen third parties for prior rule violations or other violations of law before agreeing to place their charges on telephone bills.<sup>82</sup>

---

77. *See id.* at para. 8.

78. *Cramming NPRM*, *supra* note 73, at para. 1.

79. *Id.* at para. 52.

80. *See id.* at para. 53. The NPRM proposes that: 1) wireline carriers that offer subscribers the option to block third-party charges from their telephone bills must clearly and conspicuously notify subscribers of this option at the point of sale, on each bill, and on their websites and 2) charges from third-party vendors that are not carriers be placed in a section separate from charges assessed by carriers and their affiliates.

81. *See generally* Comments of CTIA—The Wireless Ass’n, Empowering Consumers to Prevent and Detect Billing for Unauthorized Charges (“Cramming”), CG Docket No. 11-116 (rel. Oct. 24, 2011) [hereinafter CTIA Cramming NPRM Comments].

82. *See* Comments of Consumers Union, Ctr. for Media Justice, Consumer Fed’n of Am., Nat’l Consumer Law Ctr & Public Knowledge at 2-5, Empowering Consumers to

In April 2012, the Commission adopted some of these proposed cramming rules for wireline carriers, but refrained from applying them to CMRS carriers.<sup>83</sup> However, as part of its order, the FCC issued a Further Notice of Proposed Rulemaking that noted increasing consumer concern over wireless cramming and sought comment on potential regulatory and non-regulatory measures, such as technological solutions, that could assist consumers in avoiding cramming.<sup>84</sup> The Commission has yet to adopt any binding regulations with regards to wireless cramming, but continues to express concern in this area, as well as a willingness to regulate.

### 3. Improving Consumer Education and Access to Information

Additionally, the Genachowski Commission has made substantial strides in protecting consumers by facilitating access to helpful information. First, in January 2010, the Commission launched a consumer task force that includes every Bureau Chief, the Chief of the Office of Engineering and Technology, the General Counsel, and the Managing Director, which focuses on protecting and empowering consumers as communications networks and technologies become increasingly complex yet essential to Americans' everyday lives.<sup>85</sup> Second, in July 2010, the Commission launched an online consumer help center, which offers "One-Stop Shopping" for consumers that allows them to learn about different issues in telecommunications, find out what's going on at the FCC, get tips for making the best choices in purchasing communications devices and services, have their voices heard by filing comments on issues that interest them, and file a complaint when there are problems.<sup>86</sup> Third, in February 2011, the Commission adopted an order reorganizing CGB to create a Web and Print Publishing Division that is responsible for providing consumers with significant information concerning telecommunications services and how those services are regulated, as well as the information consumers

---

Prevent and Detect Billing for Unauthorized Charges ("Cramming"), CG Docket No. 11-116 (rel. Oct. 24, 2011) [hereinafter Consumer Group Cramming NPRM Comments].

83. See Empowering Consumers to Prevent and Detect Billing for Unauthorized Charges ("Cramming"), *Report and Order and Further Notice of Proposed Rulemaking*, FCC 12-42, para. 48, 80 (2012) [hereinafter *Cramming FNPRM*], available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-12-42A1\\_Rcd.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-12-42A1_Rcd.pdf). The rules "require wireline carriers that currently offer blocking of third-party charges to clearly and conspicuously notify consumers of this option on their bills, websites, and at the point of sale; to place non-carrier third-party charges in a distinct bill section separate from all carrier charges; and to provide separate totals for carrier and non-carrier charges."

84. See *id.* at para. 146.

85. See Press Release, FCC, FCC Chairman Julius Genachowski Announces Launch of Consumer Task Force (Jan. 20, 2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-295816A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-295816A1.pdf).

86. See Press Release, FCC, FCC Launches Consumer Help Center (Jul. 27, 2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-300333A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-300333A1.pdf).

need to make choices in a competitive marketplace.<sup>87</sup> All three of these actions serve to empower consumers by granting them easy access to information they can use to protect themselves from harm, without imposing any unnecessary burdens on the wireless industry. Accordingly, and in contrast with the Kennard, Powell and Martin Commissions, the Genachowski Commission has been extremely active in using its power, through regulation and otherwise, in the name of protecting wireless consumers.

### III. ANALYSIS OF THE BILL SHOCK COMPROMISE

First, it is conceded that the Commission, as the regulatory agency charged with “mak[ing] available, so far as possible, to all the people of the United States . . . rapid, efficient, Nation-wide, and world-wide wire and radio communication services with adequate facilities at reasonable charges,”<sup>88</sup> has as a fundamental purpose the protection of consumers from unreasonable charges, and that sometimes regulatory intervention is necessary to ensure that this purpose is achieved. Second, there is evidence that a significant number of wireless consumers are receiving unexpected charges on their phone bills, and the Genachowski Commission’s focus on protecting these consumers is praiseworthy. Third, it is conceded that leaving industry some flexibility in implementing the bill shock compromise’s mandates and the fact that 97 percent of the wireless industry has agreed to abide by the compromise’s terms are generally positive attributes. However, the bill shock compromise, when examined as a whole, was not a wise policy mechanism for protecting wireless consumers from the perceived harms of bill shock and should not have been agreed upon.

First, the Commission’s authority to implement the bill shock rules absent industry agreement is questionable because the *Bill Shock NPRM* fails to point to any specific source of authority upon which it intends to rely. Instead, the Commission cites a variety of provisions in Title III of the Act that could potentially grant authority, but whether they cover services such as SMS and wireless broadband data services is unclear and contested.<sup>89</sup> Such action by the Commission without clear congressional authority taints the notion of compromise here because it suggests that the Commission was applying undue pressure in an area that Congress did not intend it to regulate. Second, although the bill shock compromise is a compromise in theory, in practice it is a really paternalistic and burdensome regulation that fails to properly allocate the costs of

---

87. See Reorganization of the Consumer and Governmental Affairs Bureau, *Order*, FCC 11-17, para. 1 (2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-11-17A1\\_Rcd.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-17A1_Rcd.pdf).

88. 47 U.S.C. § 151 (2006).

89. See CTIA Bill Shock NPRM Comments, *supra* note 54, at 37-38.



compliance and which will lead to increased costs for consumers. Instead, the Commission should have focused on enforcing against unjust and unreasonable carrier behavior through the sufficient authority it already had, adopted policies aimed at working with industry to increase consumer choice and access to information, and tailored solutions only to concrete problems, not hypothetical problems or areas where the mere opportunity to empower consumers, no matter the cost, exists.

*A. The Commission's Authority to Impose the Rules Proposed in the Bill Shock NPRM is Questionable at Best*

In its *Bill Shock NPRM*, the Commission did not *specifically* announce the statutory authority it intended to rely on in creating any bill shock rules. Instead, it listed a number of provisions from Title III of the Act from which authority could possibly be derived, while also seeking comment on other potential sources of authority.<sup>90</sup> In its comments, as noted above, CTIA stressed that SMS and wireless broadband data services are information services over which the Commission lacks authority to require information disclosures, and the consumer groups, who generally supported the Commission's bill shock proposal, were silent on the issue of authority.<sup>91</sup> Accordingly, there is no clear authority upon which the Commission could have relied, which would have left any adopted rules open to attack on appeal. This, in turn, would have created excess costs to the wireless industry and taxpayers in the form of legal fees and regulatory uncertainty, and also suggests that the Commission may be unable to enforce its promise to reopen the bill shock proceeding, should it find that the wireless industry is not keeping up its end of the bargain.

Further, the constitutionality of any bill shock rules adopted through the rulemaking process is also unclear. In *Central Hudson*, the Supreme Court announced that a regulation of commercial speech will be found compatible with the First Amendment if: (1) the regulation relates to activity that is lawful and that is not misleading; (2) there is a substantial government interest; (3) "the regulation directly advances the governmental interest;" and (4) the proposed regulation "is not more extensive than is necessary to serve that interest."<sup>92</sup> Here, the bill shock rules proposed in the NPRM would have controlled commercial speech because they would have forced wireless carriers to create an entirely new message made up of content established by the Commission and imposed the cost of distribution on the carriers. Additionally, even to the extent that the government has a

---

90. See *Bill Shock NPRM*, *supra* note 49, at para. 27.

91. CTIA Bill Shock NPRM Comments, *supra* note 54, at 34; see generally Public Interest Group Bill Shock NPRM Comments, *supra* note 59, at 1-3, 7 (supporting the Commission's proposal and urging it to establish additional rules).

92. *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n.*, 447 U.S. 557, 566 (1980).

substantial interest in ensuring consumers have access to the contents of these alerts, any mandate that the information be sent directly to the device is more extensive than necessary to serve that interest because other, less burdensome methods of accessing this information from one's wireless device or the Internet already exist.<sup>93</sup> Accordingly, although the potential lack of authority does not taint the voluntary agreement by the wireless industry to provide alerts, it does suggest that Congress may not have intended to grant the Commission authority to regulate in this area, calls into question the Commission's ability to take further action should industry not send the alerts as promised, and generally weakens any contention that binding wireless carriers in this manner is good policy.

*B. The Bill Shock Compromise is Too Regulatory in Nature and Does Not Adequately Resolve the Consumer Harms that Exist*

As conceded above, there is significant evidence of harms to wireless consumers as a result of the billing practices of some wireless providers, which is exemplified in the report by the GAO that found that "34 percent of wireless phone users responsible for paying for their services received unexpected charges on their bills" and the FCC's finding that "17 percent of all Americans with cell phones . . . had experienced a sudden increase in their bill that occurred even when they had not changed their calling or texting plan."<sup>94</sup> However, the bill shock compromise is really just regulation in the form of a compromise, which was obtained through threatening the wireless industry with even more burdensome and less flexible regulation. Further, the compromise is unnecessarily paternalistic, which causes the costs of compliance to be misallocated and therefore, does not efficiently and adequately address the harms that some wireless consumers are experiencing. In essence, the compromise, which implements basically all the rules proposed in the NPRM, is a solution for solution's sake where the benefits of the solution do not outweigh the costs, rather than a mechanism narrowly calculated to maximize consumer protection in light of these costs. It was, therefore, bad policy for the Commission to agree to this compromise.

1. The Wireless Industry Agreed to the Bill Shock Compromise Because It Was More Costly to Not Reach a Compromise and Not Because the Compromise Was Good Policy

In the *Bill Shock NPRM*, the Commission not only proposed the usage alert requirements for post-paid subscribers that were agreed to in the

---

93. See CTIA Bill Shock NPRM Comments, *supra* note 54, at 9-14.

94. BILL SHOCK WHITE PAPER, *supra* note 45, at 3.

bill shock compromise, but also sought comment on less flexible and more burdensome regulations. These included adopting the European Union's requirement that alerts be sent out in "real-time" when both 80 percent and 100 percent usage levels are triggered, as well as extending the proposed rules to the prepaid context.<sup>95</sup> Further, in their *Bill Shock NPRM* comments, the public interest commenters stressed that the Commission's proposed rules did not go far enough and urged the Commission to require that subscribers affirmatively opt-in before overage fees could be charged.<sup>96</sup> Also, as noted above, there was uncertainty regarding the Commission's legal authority to implement bill shock rules, which could have potentially led to expensive litigation. Accordingly, these factors created an environment where the certainty of the compromise's requirements as well as the degree of flexibility regarding implementation that the compromise afforded made the compromise the lesser of two evils. However, the compromise is ultimately still an evil that should have been avoided.

## 2. The Compromise is Unnecessarily Paternalistic, Inadequately Allocates the Costs of Compliance, and Will Ultimately Lead to Increased Costs for Wireless Consumers

The bill shock compromise requires wireless carriers to "provide free alerts both before and after subscribers reach monthly limits on voice, data and text," as well as "inform consumers of international roaming charges when traveling abroad," unless they opt-out.<sup>97</sup> However, government studies show that only one-third of subscribers in charge of paying their phone bill are receiving unexpected charges.<sup>98</sup> Thus, this solution is over-inclusive in that alerts will be sent to subscribers who are already aware of their monthly usage, and were not at risk of suffering from bill shock.

This over-inclusion is not necessarily problematic; however, the costs imposed on the wireless industry substantially outweigh any convenience benefits to consumers gained by the over-inclusion. CTIA noted that "[s]ome carrier billing systems are not equipped to handle outbound usage alerts and would need to be overhauled or replaced entirely," and "many carriers would have to implement extensive network upgrades throughout their service area to address technical challenges to providing recurring usage alerts by SMS or voice . . . ."<sup>99</sup> These upgrades are expensive but

---

95. See *Bill Shock NPRM*, *supra* note 49, at paras. 20, 25.

96. See Public Interest Group Bill Shock NPRM Comments, *supra* note 59, at 2.

97. CTIA Bill Shock Compromise News Release, *supra* note 55.

98. BILL SHOCK WHITE PAPER, *supra* note 45, at 3.

99. CTIA Bill Shock NPRM Comments, *supra* note 54, at 31-32.

necessary if carriers are to uphold their end of the bill shock compromise.<sup>100</sup>

Furthermore, the Commission failed to demonstrate the benefits of these alerts to the majority of wireless consumers who do not suffer from bill shock. For example, consumers who never approach their usage limits or travel internationally will never trigger a usage alert. Thus, no benefits arise from creating the capability to send out usage alerts to them. Also, any usage alerts provide little benefit outside of mere convenience for consumers who currently monitor their usage through existing tools made available by their provider. Due to this, the inherent costs of complying with the bill shock compromise's conditions outweigh the benefits.

Additionally, the Commission's approach to the bill shock compromise is unnecessarily paternalistic because it is focused on the required delivery of usage information to consumers rather than ensuring that consumers understand how to protect themselves using the tools already available to them. This is precisely the type of behavior Chairman Powell was addressing when he cautioned against unelected, unaccountable Commissioners making judgments about where the thoughts, energies, and family time of consumers should be directed.<sup>101</sup> Here, the Genachowski Commission, by pressuring industry into accepting the bill shock compromise, decided for the public that it is in their best interest to receive alerts when certain events are triggered. However, as noted above, the Commission does not make a compelling case of why the mandated delivery of this information, and the substantial costs associated with it, are necessary when increasing consumer access to information on how they can protect themselves from bill shock could be equally effective. This type of paternalistic regulation creates false consumer expectations that the role of government is to hold their hand, which encourages consumer laziness instead of accountability.

Ultimately, the cost of implementing usage and international roaming alert capabilities will be passed along to consumers, as CTIA explicitly noted in its comments on the *Bill Shock NPRM*.<sup>102</sup> Thus, all wireless consumers, regardless of whether they reap the benefits of the alerts, will end up paying for costly network upgrades through increased fees. This cost distribution is unfair because it causes diligent consumers who are mindful of the charges they incur to subsidize the alert notifications sent to others, as well as inefficient because the total costs of implementation outweigh the benefits.

---

100. See Comments of T-Mobile USA at 16-17, Empowering Consumers to Avoid Bill Shock, CG Docket No. 10-207 (rel. Jan. 11, 2011).

101. See Fischer, *supra* note 23, at 60.

102. See CTIA Bill Shock NPRM Comments, *supra* note 54, at 31-32.

### 3. The Compromise is an Example of Regulating for Regulation's Sake that Does Not Adequately Address the Harms to Some Wireless Consumers

In addition to being unfair and inefficient, the bill shock compromise does not adequately resolve the harms it is intended to address. In its white paper on bill shock, released one day before the *Bill Shock NPRM*, CGB compiled a list of reasons why consumers suffer from bill shock that included: (1) unexpected charges when a phone is used with Wi-Fi in "airplane mode," (2) charges for mandatory data plans that are included with new phones and plans without consumers being aware, (3) taxes and other fees of which a consumer was not aware, and (4) confusion about promotional rates, plans, and billing.<sup>103</sup> However, the alerts and disclosure of tracking tools and services that the bill shock compromise calls for fail to get at the root of these problems;<sup>104</sup> they merely serve to notify the consumer that a certain triggering point has been reached without suggesting why it was reached. Thus, even if the consumer is aware that he is close to incurring additional fees, he is not empowered with information to resolve the problem. Accordingly, consumers may no longer be "shocked" at their bills, but the underlying problem that caused the shocking is likely to continue arising each month. This is specifically relevant with regard to data usage, which is much more difficult to conceptualize than number of minutes used or texts sent, or whether one is traveling internationally.

Additionally, in the *Bill Shock NPRM*, the Commission contended that any "[u]sage alerts that are currently provided vary substantially between service providers and are inconsistent in application among various types of mobile services and plans."<sup>105</sup> Yet in agreeing to the bill shock compromise, carriers have only promised to provide, at no charge, "notifications" to consumers of currently offered and future domestic wireless plans that include limited voice, messaging, or data allowances.<sup>106</sup> Thus, the compromise does not require standardization across carriers regarding when the notification is sent out and what information it contains. When a consumer switches carriers, or potentially even when he switches devices or plans, the timing and form of the notification might change. Although allowing this flexibility is critical to ensuring that carriers can minimize the costs inherent in adjusting their networks to allow these notifications to be sent out, this flexibility greatly decreases the effectiveness of the alerts in creating an industry standard practice that consumers can rely upon. This serves to make the bill shock compromise a

---

103. See BILL SHOCK WHITE PAPER, *supra* note 45, at 2-3.

104. CTIA WIRELESS CODE, *supra* note 65, § 11.

105. *Bill Shock NPRM*, *supra* note 49, at para. 16.

106. See CTIA WIRELESS CODE, *supra* note 65, § 11.

“regulation for regulation’s sake,” i.e., a regulatory action for which Chairman Genachowski and the Commission can pat themselves on the back and use as an example of their dedication to protecting consumers,<sup>107</sup> but which in actuality does little to benefit consumers.

The bill shock compromise also fails to secure from the wireless industry a promise that the alerts will be in “real-time.” Real-time alerts would immediately inform consumers about additional fees associated with their presence in an international jurisdiction, or that they are approaching or have reached either a voice, text, or data usage limit, which would allow the consumer to discontinue the behavior before any excess fees are incurred. However, the bill shock compromise does not require real-time alerts. This allows the wireless industry some necessary buffer room regarding the timing of the alerts, “as data traffic usage is not processed and updated in real-time,”<sup>108</sup> but serves to diminish the benefits that the alerts provide. Moreover, in the context of international roaming, the expectation of an alert by a consumer that the bill shock compromise creates can be especially problematic because carriers have “no...advance warning with respect to a roaming customer who is about to download a large data file,” and alerts can be even more delayed than in the usage alert context because the roaming billing records are transmitted by the visiting carrier.<sup>109</sup> Therefore, the alerts could provide consumers with a false sense of security that they will be alerted with sufficient notice before incurring any additional fees, which may cause them to abandon any caution they would have had absent the compromise.

Further, although the bill shock compromise is applicable to wireless carriers that provide services for 97 percent of the population,<sup>110</sup> 3 percent of the population will continue to operate under the un-regulated, pre-compromise billing regime. This 3 percent would not have been left out if the FCC issued binding rules, or pushed harder to get the carriers of the remaining 3 percent on board. The Commission’s willingness to compromise demonstrates its readiness to sacrifice protection of a portion of the population for a good headline, which could cause the abandoned 3 percent to lose confidence in the Commission. Accordingly, the bill shock compromise is unfair to consumers who do not benefit from the alerts, inefficiently allocates the costs of compliance, and fails to adequately resolve the existing harms to wireless consumers. Thus, it is a bad policy that never should have come into existence.

---

107. See Genachowski Bill Shock Announcement, *supra* note 63 (stating that “[t]oday’s announcement is a big win for consumers” and thanking the FCC staff, including those in the Chairman’s Office, for their hard work and “constant focus on doing the right thing for the American public”).

108. Comments of CTIA—The Wireless Ass’n at 33, Empowering Consumers to Avoid Bill Shock, CG Docket No. 10-207 (rel. Jan. 11, 2011).

109. *Id.*

110. See CTIA Bill Shock Compromise News Release, *supra* note 55.

*C. Commission Action in Response to Bill Shock Should Have Focused on Deregulatory Solutions that Are More Narrowly Tailored to the Harms Found*

Instead of entering into the bill shock compromise, causing the wireless industry to unnecessarily take on extra costs that are passed on to consumers, the Commission should have focused on protecting consumers from bill shock through the regulatory rules and mechanisms already in place and adopted policies aimed at working with industry to take advantage of existing usage tracking tools and increase consumer access to information, which more efficiently and effectively resolve the harms of bill shock.

1. The Commission Should Have Taken Enforcement Action Against Unjust and Unreasonable Carrier Behavior Through the Rules and Mechanisms Already in Place

Section 201(b) of the Act charges the Commission with ensuring that “[a]ll charges, practices, classifications, and regulations for and in connection with such [common carrier] service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust and unreasonable is . . . unlawful.”<sup>111</sup> This provision remains a powerful tool for the Commission in protecting consumers. It, along with the truth-in-billing rules, was the basis for the Genachowski Commission’s investigation into Verizon Wireless’ billing practices that led to a Consent Decree where the Commission obtained binding promises by Verizon to stop behavior that harmed consumers.<sup>112</sup> Accordingly, although the Commission may not have the authority to impose the bill shock rules proposed in the *Bill Shock NPRM*, it does have the authority to enforce against billing practices that are unjust and unreasonable.<sup>113</sup> Similar to the investigation into Verizon’s billing practices, the Commission could scrutinize any potentially unfair practices that are leading wireless consumers to be shocked by their bills, such as unfair disclosure of when data charges, or international roaming, apply. The Commission could then focus its effort on stopping these practices. This type of narrowly tailored enforcement action would demonstrate to the wireless industry that certain types of behavior will not be tolerated, while minimizing the regulatory burdens inherent in the bill shock compromise that lead to increased costs for consumers.

Furthermore, the Commission should utilize its authority derived from other portions of the Act, such as section 310(d), to ensure vigorous

---

111. 47 U.S.C. § 201(b) (2006).

112. See *Verizon Wireless Consent Decree*, *supra* note 75, at paras. 7-8.

113. 47 U.S.C. § 201(b).

competition, specifically in the area of billing practices.<sup>114</sup> Competition with regard to billing will incentivize pro-consumer practices such as fair and clear disclosure of billing policies and easy access to usage information. Should a carrier implement anti-consumer billing policies, then consumers will leave that carrier for another and, ultimately, the carrier with anti-consumer policies will be driven from the market. Accordingly, the Commission has substantial authority to enforce against unfair and deceptive practices, as well as ensure competition in the wireless market, which it can use to ensure consumers do not suffer from bill shock.

2. The Commission Should Have Focused More on Adopting Policies Aimed at Working with Industry to Take Advantage of Usage Tracking Tools Already in Place and Increasing Consumer Access to Information

In addition, the Commission could have supplemented this authority by working with the wireless industry to truly empower consumers, much like the Commission did during the Chairmanships of Kennard and Powell. For example, in a similar nature to the best practices guidelines designed to prevent cramming charges that were adopted by the Kennard Commission, the Genachowski Commission should have worked with CTIA and the wireless industry to develop best practices that were truly voluntary, rather than unduly pressuring the industry to agree to send out alert notifications. As CTIA noted in its bill shock comments, the wireless industry offered to work with the Commission to promote the variety of innovative monitoring tools already available.<sup>115</sup> This type of solution, a business solution, is, in the words of Chairman Kennard, “always better than a regulatory solution to a business problem,”<sup>116</sup> as it would more efficiently take advantage of the myriad of usage tracking tools available, which avoids the unnecessary costs associated with implementing the mandatory alerts while also ensuring that consumers benefit from an enhanced ability to track their usage. Ultimately, although the compromise does call for clear and conspicuous disclosure of “tools and services that enable consumers to track, monitor and/or set limits on voice, messaging and data usage,” this disclosure takes a back seat to the alerts.<sup>117</sup> The Commission should have

---

114. See, e.g., AT&T Inc. & Cellco P’ship d/b/a Verizon Wireless Seek FCC Consent to Assign or Transfer Control of Licenses & Authorizations & Modify a Spectrum Leasing Arrangement, *Memorandum Opinion and Order*, FCC 10-116, para. 22 (2010), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-10-116A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-116A1.pdf). Pursuant to section 310(d) of the Act, the Commission is charged with determining whether any proposed assignment and transfer of control of licenses and authorizations, which includes mergers and acquisitions, will serve the public interest, convenience, and necessity. See, e.g., *id.*

115. See CTIA Bill Shock NPRM Comments, *supra* note 56, at 5-6.

116. Krasnow & Milstead, *supra* note 4, at 7, 11.

117. CTIA WIRELESS CODE, *supra* note 65, § 11.



instead focused its efforts on working with industry to further develop and make use of the usage tracking tools already in place, encouraging industry to improve their accuracy, visibility and effectiveness, rather than merely requiring their existence be disclosed.

Further, the Commission should have focused more on educating consumers about the available usage tracking tools and informing them of the causes of bill shock, thus empowering them to avoid the harms of bill shock on their own. As Chairman Genachowski himself noted in the similar context of seizing the opportunities of broadband Internet, “[t]his is not about government regulation. It’s about responsibility. It’s about information and education. It’s about empowerment . . . .”<sup>118</sup> Through creating a widespread education campaign about the causes of bill shock, which could involve increasing the dissemination of information at the point of sale of devices, on the Commission’s webpage, and on the website of every carrier, the Commission could have built off the momentum gathered from previously successful education initiatives such as the consumer task force, online consumer help center and creation of CGB’s Web and Print Publishing Division that were discussed in Part II. Armed with this information, consumers would then have an understanding of the tools available to them and could efficiently avoid suffering from bill shock by resolving the specific problem that had caused them to suffer from bill shock in the past. By focusing on taking advantage of and improving the myriad of tracking resources already available to consumers, as well as launching a widespread education campaign regarding the harms of bill shock and the reasons why it happens, the Commission would have more narrowly tailored its solution to bill shock’s harms, which eliminates unnecessary costs that are eventually passed along to consumers and therefore would have been a better policy than the bill shock compromise.

#### IV. APPLICATION OF THE BILL SHOCK COMPROMISE TO CRAMMING

The bill shock compromise, as implemented, was bad policy that should have been avoided. A similar compromise approach, however, might be advisable policy with regard to the Commission’s pending cramming proceeding, to the extent that any actions required by the wireless industry are narrowly focused on informing and educating consumers. First, like in the context of bill shock, the Commission’s authority to implement the rules proposed in the *Cramming NPRM* is unclear and disputed.<sup>119</sup> Accordingly, any cramming rules imposed on the

---

118. Prepared Remarks of FCC Chairman Julius Genachowski at “Generation Mobile” Forum, at 3 (Dec. 14, 2010), *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-303609A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-303609A1.pdf).

119. *See* CTIA Cramming NPRM Comments, *supra* note 54, at 18-19.

wireless industry are ripe for costly litigation and could potentially be thrown out on appeal, which would make them unenforceable. Therefore, a Commission-industry compromise could lead to a more amicable and longer lasting resolution to the issue of wireless cramming than binding regulation, making it a preferential vehicle for protecting consumers.

Additionally, the costs for the wireless industry in complying with the rules proposed in the *Cramming NPRM* would be substantially less than they are for complying with the Bill Shock rules. As proposed in the *Cramming NPRM*, the rules for wireless carriers are narrowly tailored to inform consumers of their right to complain to the Commission about unjust practices, provide them with the Commission's contact information, and potentially require that charges from third-party vendors be placed in a separate section than the charges accessed by the carrier.<sup>120</sup> Thus, the cramming rules would merely mandate that certain information that is narrowly tailored to empowering consumers to protect themselves against unauthorized charges be included on the face of the phone bill. This is not what the bill shock compromise entails. Rather, it sets up prescriptive rules about when alerts must be sent to consumers, which require substantial and costly upgrades to each carrier's network.<sup>121</sup> Accordingly, the costs to the wireless industry in implementing the rules proposed in the *Cramming NPRM* are much less than in implementing the bill shock rules.

The proposed cramming rules are also similar to the Commission's truth-in-billing rules, which properly focus on curbing deceptive practices by carriers that mislead and confuse consumers. Currently, the truth-in-billing rules require that (1) the name of the service provider associated with each charge must be clearly and conspicuously identified;<sup>122</sup> (2) where charges for two or more carriers appear on the same bill, the charges must be separated by service provider;<sup>123</sup> (3) charges for non-telecommunications services must be placed in a distinct section of the bill from all carrier charges;<sup>124</sup> and (4) clear and conspicuous notification of any change in service provider must be made manifest.<sup>125</sup> As noted above, the proposed cramming rules for wireless carriers are also narrowly tailored to limiting the ability of carriers to engage in deceptive billing practices and informing consumers of their right to complain to the Commission.<sup>126</sup> Both the proposed cramming rules and the existing truth-in-billing rule fundamentally focus on ensuring that information is presented to consumers in a simple and straightforward manner. Accordingly, like the

---

120. See *supra* text accompanying notes 20, 78-79.

121. See CTIA Bill Shock NPRM Comments, *supra* note 54, at 31.

122. 47 C.F.R. § 64.2401(a)(1) (2011).

123. *Id.* § 64.2401(a)(2).

124. Empowering Consumers to Prevent and Detect Billing for Unauthorized Charges ("Cramming"), 77 Fed. Reg. 30919 (proposed May 24, 2012) (to be codified 47 C.F.R. § 64.2401(a)(3)).

125. 47 C.F.R. § 64.2401(a)(3) (2011).

126. See *supra* text accompanying notes 20, 78-79.

truth-in-billing rules, the proposed cramming rules empower consumers to protect themselves from cramming without requiring carriers to make costly alterations to their network infrastructure or abide by prescriptive rules. Therefore, it is a good policy.

Further, the proposed cramming rules are a proper response to “evidence that CMRS consumers . . . have been the target of cramming.”<sup>127</sup> In the *Cramming NPRM*, the Commission noted that “a recent survey by the GAO found that 34 percent of adult wireless users do not know where they can complain about issues with wireless service,” and as a result the GAO recommended that the Commission inform consumers that complaints about wireless phone service can be made to the Commission.<sup>128</sup> The proposed rule requiring wireless carriers to provide their customers with the Commission’s contact information merely serves to implement this recommendation—no more and no less.

The proposed rule could also be enhanced by adoption through an industry-government agreement rather than a rulemaking. Such a compromise would provide carriers with flexibility regarding where on the bill the notice is placed. A wide range of carrier billing practices exist because of the broad range of services and plans they offer as well as billing formats (electronic versus paper) that are offered. Thus, a compromise would allow carrier flexibility across technologies in how they implement the notice to consumers while equally ensuring that the consumers receive the benefit of the notice.

However, it is critical that any cramming rules are not overly burdensome. For example, if the Commission were to adopt the proposal proffered by the consumer groups, which would require all providers screen third parties for prior rule violations or other violations of law before agreeing to place their charges on telephone bills, the focus of the regulation would shift from informing and empowering consumers to protect themselves to instating overly paternalistic and burdensome mandates.<sup>129</sup> Under this type of governing regime, the wireless carriers would have to screen all third parties before allowing them to bill.<sup>130</sup> In today’s era of the third party app, a mandate like this would unnecessarily burden wireless carriers and, like in the context of bill shock, cause wireless consumers to bear the unnecessary costs that are eventually passed along to them.<sup>131</sup> Thus, a Commission-industry compromise with regard to cramming might be advisable, but only to the extent that any actions required by the wireless industry are narrowly focused on informing and educating consumers.

---

127. *Id.*

128. *Id.*

129. *See* Consumer Group Cramming NPRM Comments, *supra* note 82, at 5.

130. *Id.* at 10.

131. *Id.*

## V. CONCLUSION

Accordingly, the bill shock compromise was a bad policy that never should have been agreed upon because the Commission's authority to implement bill shock rules absent industry agreement is questionable. In addition, the compromise is a paternalistic and burdensome regulation that fails to properly allocate the costs of compliance and will therefore lead to unnecessary costs for consumers. Instead, the Commission should have focused on enforcing against unjust and unreasonable carrier behavior through the sufficient authority it already has, adopted policies aimed at working with industry to increase consumer choice and access to information, and narrowly tailored its solutions to concrete harms. Although this particular Commission-industry compromise was not advised, this style of compromise could be a useful regulatory mechanism for protecting wireless consumers with regard to issues such as cramming, so long as industry commitments are narrowly focused on informing and educating consumers.

# Data Caps: How ISPs Are Stunting the Growth of Online Video Distributors and What Regulators Can Do About It

Jacob Minne\*

## TABLE OF CONTENTS

INTRODUCTION.....	235
I. THE AGREEMENTS FORMING THE INTERNET .....	236
A. <i>Four Ways to Communicate: Peering, Transit, Paid Peering, and Intranetwork</i> .....	236
1. Peering: What’s a Few Bits Between Friends? .....	238
2. Transit: The Cost of Doing Business .....	239
3. Paid Peering: When it Absolutely, Positively Has to be There in Twenty Milliseconds .....	240
4. Intranetwork Traffic: Not Exciting, but Free .....	240
B. <i>Technologies and Trends in Data: More Revenue and Less Expense for ISPs</i> .....	241
II. ISPs INSTITUTE DATA CAPS .....	244
A. <i>Cataloguing Data Caps: Size, Penalties, and Staying Power</i> ..	244
B. <i>Why Cap? <del>Costs and Congestion</del> Money and Power</i> .....	246
III. REGULATORY SOLUTIONS: ANTITRUST, NET NEUTRALITY, AND PRIVATE AGREEMENTS .....	250
A. <i>Antitrust Regulation</i> .....	250
1. Possession of Monopoly Power: Too Much Success .....	251
2. Willful Maintenance of Monopoly Power .....	252

---

\* Jacob Minne is a member of the Class of 2013 at Santa Clara University School of Law. His work at Santa Clara has focused on high tech litigation and regulatory issues. Mr. Minne has accepted an IP litigation associate position at Morgan Lewis’ Palo Alto office and looks forward to beginning work in Fall of 2013.

<i>B. Net Neutrality: Vague Rules with an Uncertain Effect .....</i>	254
1. Do Data Caps Block Access? Only if the FCC Wants Them To.....	255
2. Net Neutrality as a Defense: The FCC Made Me Do It! ...	256
<i>C. Individual Agreements: Ending Data Caps One at a Time.....</i>	257
IV. CONCLUSION: MORE THAN JUST TV – DATA CAPS AND THE INTERNET’S EXPONENTIAL GROWTH.....	259

## INTRODUCTION

The advent of near-ubiquitous high speed Internet access has prompted substantial regulatory, legislative, and academic scrutiny over how much leeway Internet service providers (“ISPs”) should have to offer preferred treatment for services like Hulu. Some have compared this kind of preferential treatment to creating an Internet “fast lane.”<sup>1</sup> More attention should be devoted, however, to the limits ISPs are now placing on their customers’ aggregate monthly Internet usage, also known as data caps. If other types of regulations can be characterized as governing speed limits on the information super highway, data caps will ultimately determine customer mileage.

This paper examines current data cap regimes, probable effects on network usage, and what, if any, action regulators can and should take. Part I analyzes the interconnection agreements that, in large part, determine the incremental cost ISPs pay for the data that customers download. This section finds that the most data-intensive network uses are also frequently the least expensive for ISPs and often actually serve as profit centers. Part II looks at the data cap policies imposed by various ISPs and considers the motivation behind them. Given the low incremental cost of data, caps hardly seem to be a price control mechanism. Some evidence suggests that data caps may be a price-gouging tool similar to overages on cellphones. Moreover, data cap policies seem to have the intention of dissuading customers from moving their TV viewing from traditional multichannel video programming distributors (“MVPDs”), which include cable providers, to online video services. Part III considers potential mechanisms for government regulation of data cap policies. Specifically, it proposes that the Department of Justice bring an antitrust action against cable ISPs. Additionally, the recent net neutrality rulemaking by the Federal Communications Commission (“FCC”), if upheld by the courts, also creates new opportunities and challenges for regulating all ISPs, not just cable, and individual settlements may provide quick regulation on a case-by-case basis. Part IV concludes that there is a need for regulatory pressure. If the capacity of consumer Internet access does not grow with the speed of that access, the exponential growth in data usage that has driven the information economy may falter.

---

1. See, e.g., Letter from Al Franken, U.S. Sen., to Julius Genachowski, FCC Chairman, Preserving the Open Internet, FCC GN Docket No. 09-191 (Dec. 10, 2010), available at <http://ecfsdocs.fcc.gov/filings/2011/03/07/6016172764.html>.

## I. THE AGREEMENTS FORMING THE INTERNET

ISPs are in the business of sending information to and from customers. To do this, the ISPs—owners of the last mile of cable to a customer's house—contract with backend service providers, owners of high-bandwidth interstate and international connections, to transmit data across the globe. These contracts take a variety of forms, and the answer to even the most fundamental questions—such as “which party pays?”—will change depending on the circumstances. Understanding the agreements and technologies governing this flow of data is necessary to understanding the motivations behind data cap policies. However, unlike the morass of statutes, regulations, and cases long governing telephone interconnection and transmission,<sup>2</sup> the agreements between an ISP, other nearby networks, and the backend networks that connect to networks nationwide are almost entirely unregulated.<sup>3</sup>

Internet communication is fundamentally different than traditional phone service.<sup>4</sup> When a phone call is placed, a company's circuit is monopolized and no other customer can use that resource.<sup>5</sup> When data is sent over the Internet, however, it is shaped as a packet and shares the connection with other users.<sup>6</sup> This technological novelty led to a diverse array of proposed and practiced billing structures.<sup>7</sup> The structure negotiated by the ISP with the backend providers determines how much sending and receiving data will cost—or in some cases, profit—the ISP.<sup>8</sup>

### *A. Four Ways to Communicate: Peering, Transit, Paid Peering, and Intranetwork*

ISPs and backend providers have begun to settle on the unit of accounting that will be used to calculate traffic bills. While this seems like a simple first step, experts previously suggested diverse accounting methods.<sup>9</sup> International telephony settlement practices provided one model, but such agreements were inapt because the Internet packet structure does

---

2. See, e.g., *United States v. AT&T*, 552 F. Supp. 131, 135 (D.D.C. 1982).

3. See Michael Kende, *The Digital Handshake: Connecting Internet Backbones*, 11 COMM'LAW CONSP'CTUS 45, 51 (2003).

4. Jonathan Weinberg, *The Internet and “Telecommunications Services,” Universal Service Mechanisms, Access Charges, and Other Flotsam of the Regulatory System*, 16 YALE J. REG. 211, 212 (1999).

5. *Id.*

6. *Id.*

7. See Geoff Huston, *Interconnection, Peering and Settlements – Part II*, 2 INTERNET PROTOCOL J. 2, 4 (1999).

8. See *id.*

9. See *id.*



not have an analogous “call-minute” to base billings on.<sup>10</sup> Proposed units of billing under this model included transmission control protocol/internet protocol (“TCP/IP”) call-minutes and billing based on the number of packets sent, with variants including measures of the size of the packets sent.<sup>11</sup> However, as of 1999, no single model was in widespread use.<sup>12</sup>

Rather than adopt a complex accounting unit that required detailed examination of user behavior, network providers (both ISPs and backend providers) have trended towards billing for the capacity of a connection, measured in bits per second. Although the secrecy of interconnection agreements makes it difficult to determine exactly how widespread is adoption of this or any particular billing unit,<sup>13</sup> one primer on the topic suggests that the common practice is for companies to reserve inter-network speed in bits per second (capacity), rather than to bill for total usage.<sup>14</sup> This assumption, that capacity-based billing is the standard approach to interconnection agreements, is consistent with the public information in the recent Comcast-Level 3 dispute. Comcast, an ISP, demanded that Level 3, a backend service and content delivery network provider (described in more detail *infra*), pay for its connection based on how many interconnection ports (which offer a fixed bandwidth in gigabits per second) were used.<sup>15</sup> Capacity-based billing is also consistent with Canadian regulations that govern interconnections between small and large ISPs.<sup>16</sup>

In order to send information outside of its network, i.e., to increase capacity, an ISP may enter into three types of agreements: Peering, Transit, or Paid Peering. An ISP may also avoid the need for extra network communication by using intranetwork resources.<sup>17</sup>

---

10. See *id.* at 6-7 (“Unlike a telephony call, no concept of state initiation exists to pass a call request through a network and lock down a network transit path in response to a call response.”).

11. See *id.* at 8-11 (explaining different settlement options).

12. See *id.* at 11.

13. See Kevin Werbach, *The Centripetal Network: How the Internet Holds Itself Together, and the Forces Tearing It Apart*, 42 U.C. DAVIS L. REV. 343, 370 n.147 (2008) (noting that peering agreements are generally confidential).

14. See Rudolph van der Berg, *How the ‘Net Works: An Introduction to Peering and Transit*, ARS TECHNICA (Sep. 2, 2008, 12:11 PM), <http://arstechnica.com/old/content/2008/09/peering-and-transit/>.

15. See Nate Anderson, *Comcast: We Bent Over Backwards to Help Level 3! (Those Bastards)*, ARS TECHNICA (Dec. 1, 2010, 6:30 PM), <http://arstechnica.com/tech-policy/news/2010/12/comcast-we-bent-over-backwards-to-help-level-3-those-bastards>.

16. See Emily Chung, *CRTC Internet Ruling May Boost Prices*, CBC NEWS (Nov. 16, 2011, 1:13 PM), <http://www.cbc.ca/news/arts/story/2011/11/16/technology-internet-ubb-crtc-billing.html> (under the new rules, large ISPs may be charge for transit in 100Mbps increments, but may not charge for aggregate usage).

17. Van der Berg, *supra* note 14 (discussing peering and transit as the two types of interconnection). Paid peering is discussed by Van der Berg as a subsidiary class of peering,

## 1. Peering: What's a Few Bits Between Friends?

In some cases, an ISP will avoid paying for data by entering into “peering” agreements. Under these arrangements, both networks (ISP and backend) will interconnect and agree to forego any regular account settlement payments on the assumption that all sides are receiving roughly equal value from the arrangement.<sup>18</sup> Any data sent from one network, which is to be delivered to (or “terminated” on) a peering partner’s network, is transmitted free of charge. However, no data will be delivered to any networks which are not party to the peering agreement, even if one of the peering partners purchases data from that network provider.<sup>19</sup>

The main advantage of this kind of arrangement is cost. In a peering agreement, the only costs a network will incur are for the equipment and physical transmission capacity.<sup>20</sup> There is no transactional cost related to billing or measuring peak bandwidth demand, and there is no marginal cost for sending lots of data.<sup>21</sup> As such, peering agreements are popular between major data carriers, or “tier-1” networks, such as Sprint, AT&T, Verizon, and Level 3, who are able to reach every other network without paying a settlement.<sup>22</sup> These carriers are also incentivized to make connections with as much bandwidth as technically possible, thereby diminishing the chance that packets will be dropped.<sup>23</sup> Small and regional ISPs may also enter into peering agreements with other small networks, where roughly equivalent amounts of data are exchanged between the two networks,<sup>24</sup> or with content delivery networks (CDNs), which locate servers for media rich applications like Hulu,<sup>25</sup> iTunes,<sup>26</sup> and Netflix<sup>27</sup> near ISP servers, reducing the time to deliver this content to end users.<sup>28</sup>

---

but here it is useful to consider it on its own. He also asserts that there is no marginal cost to intranetwork traffic. *Id.*

18. See Kende, *supra* note 3, at 4-8; Werbach, *supra* note 13, at 368.

19. See Van der Berg, *supra* note 14, at 2.

20. See Kende, *supra* note 3, at 5.

21. See Werbach, *supra* note 13, at 368.

22. See Kende, *supra* note 3, at 6. For a current list of such providers, see *AS Rank: AS Ranking*, COOP. ASS’N FOR INTERNET DATA ANALYSIS, <http://as-rank.caida.org> (last visited Jan. 19, 2012). For a visual depiction of such networks in North America circa 2006, see, for example, Ben Worthen, *Who Owns the Internet? We Have a Map That Shows You*, CIO NET EFFECT BLOG, (Mar. 17, 2006), <http://web.archive.org/web/20060323002340/http://blogs.cio.com/node/209> (accessed via the Internet Archive).

23. See Van der Berg, *supra* note 14, at 2.

24. See, e.g., *Comcast Settlement-Free Interconnection (SFI) Policy*, COMCAST (July 2011), <http://www.comcast.com/peering/>.

25. See Rich Miller, *Equinix Peering Powers Hulu Streaming Video*, DATA CTR. KNOWLEDGE (Mar. 16, 2008), <http://www.datacenterknowledge.com/archives/2008/03/16/equinix-peering-powers-hulu-streaming-video/>.

26. See Justin Berka, *Apple Using Both Limelight and Akamai for Content Delivery*, ARS TECHNICA (Jan. 29, 2009, 9:56 AM), <http://arstechnica.com/apple/news/2009/01/analyst-says-apple-also-using-limelight-for-content-delivery/>.

Peering arrangements are limited by their inability to reach every network on the Internet. It is a nearly impossible for one network to connect with all the hundreds of thousands of other networks on the Internet. Even large networks such as AT&T must, in a way, rely on small networks that purchase access from the large network.<sup>29</sup> Significant changes in data usage by either side in a peering arrangement may also lead to “depeering,” resulting in dramatic cost shifts for both sides, occasional calls for regulatory action, and network interruptions.<sup>30</sup>

## 2. Transit: The Cost of Doing Business

Transit is the opposite of peering. Rather than transmit data freely between agreeing networks, one network—for instance, a regional ISP wishing to gain access to a nationwide network—will purchase bandwidth from the second network at a recurring fee.<sup>31</sup> A transit customer will limit its interconnection speed as much as possible instead of attempting to connect at the fastest technically feasible speed.<sup>32</sup> Finally, unlike peering, a transit provider will allow its transit customers to access all other networks with which it connects—its peers, other transit customers, and transit providers.<sup>33</sup>

Negotiating transit agreements is complicated and even deciding which network will pay is a challenge. Networks are never identical; one might have many small customers, while another has a few large, important customers.<sup>34</sup> These subjective factors in reaching agreements, in addition to the transactional costs, not present in peering agreements may push more networks toward peering instead of transit. Nonetheless, most networks must purchase some transit to be able to access the entire Internet.<sup>35</sup>

---

27. See Nate Anderson, *Peering Problems: Digging into the Comcast/Level 3 Grudge-match*, ARS TECHNICA (Dec. 9, 2010, 12:20 PM), <http://arstechnica.com/tech-policy/news/2010/12/comcastlevel3/> (discussing a conflict between Comcast and Level 3 recently emerged after Comcast pressured Level 3 into paying for peering, see *infra* Parts I(a)(3) and I(b)).

28. See Miller, *supra* note 25.

29. See Van der Berg, *supra* note 14, at 2.

30. See, e.g., Matthew Lasar, *Peers or Not? Comcast and Level 3 Slug it Out at FCC's Doorstep*, ARS TECHNICA (Feb. 25, 2011, 11:56 AM), <http://arstechnica.com/tech-policy/news/2011/02/peers-or-not-comcast-and-level-3-slug-it-out-at-fccs-doorstep/>; Mikael Ricknäs, *Spring-Cogent Dispute Puts Small Rip in Fabric of Internet*, PCWORLD (Oct. 31, 2008, 6:10 AM), [http://www.pcwORLD.com/article/153123/sprint\\_cogent\\_dispute.html](http://www.pcwORLD.com/article/153123/sprint_cogent_dispute.html).

31. See Van der Berg, *supra* note 14.

32. See *id.*

33. See *id.*

34. See Kende, *supra* note 3, at 51-52.

35. See *id.* at 61.

### 3. Paid Peering: When it Absolutely, Positively Has to be There in Twenty Milliseconds

Recently, many ISPs and mid-sized networks, like Comcast,<sup>36</sup> Time Warner Cable,<sup>37</sup> and Verizon,<sup>38</sup> have begun to offer “paid peering” arrangements.<sup>39</sup> A customer who purchases paid peering is charged a recurring fee and is only visible to the end users on the network from whom it purchases interconnection.<sup>40</sup>

The advantage of this type of arrangement is speed and quality of access. Content that is made available through both traditional transit and peering agreements, in addition to a paid peering agreement, is redundant and less vulnerable to accidental outages or denial of service attacks.<sup>41</sup> Content is also cached immediately adjacent to the network, which reduces latency (the time it takes information requested from a server to be delivered, generally measured in milliseconds) and bypasses congestion in the regular backbone.<sup>42</sup> While paid peering could be used by any web service, the primary clients are CDNs that purchase access from ISPs.<sup>43</sup> This is similar to the network-affiliate model used in broadcasting: the content producing networks (i.e., Hulu, iTunes, Netflix, YouTube, etc.) subsidize the broadcaster affiliates (Comcast, Verizon, Time Warner).<sup>44</sup> This cost of subsidizing is “more than offset by the additional revenue generated by the fact that advertisers can now reach more potential customers.”<sup>45</sup>

### 4. Intranetwork Traffic: Not Exciting, but Free

None of the agreements described above will matter for data that is sent and terminated solely within an ISP’s own network. This sort of traffic is preferable to data sent over peering or transit connections because there

---

36. See *Wholesale Dedicated IP Transit*, COMCAST, <http://www.comcast.com/dedicatedinternet/> (last visited Feb. 17, 2013).

37. See *What is Paid-Peering?*, AOL TRANSIT DATA NETWORK, [http://www.atdn.net/paid\\_peering.shtml](http://www.atdn.net/paid_peering.shtml) (last visited Feb. 17, 2013).

38. See *Verizon Offering Pricing Incentives to Content-Delivery Network Providers to Connect Directly to Company’s Internet Backbone Network*, VERIZON (Jan. 7, 2009), <http://newscenter2.verizon.com/press-releases/verizon/2009/verizon-offering-pricing.html>.

39. See Christopher S. Yoo, *Network Neutrality, Consumers, and Innovation*, 2008 U. CHI. LEGAL F. 179, 233 (2008).

40. See Anderson, *supra* note 27; see also Christopher S. Yoo, *Innovations in the Internet’s Architecture that Challenge the Status Quo*, 8 J. TELECOMM. & HIGH TECH. L. 79, 96-99 (2010) (discussing, although not defining, paid peering relationships).

41. Yoo, *supra* note 39, at 198-99.

42. *Id.*

43. *Id.*; see also VERIZON, *supra* note 38 (advertising its paid peering program primarily for “content owners and CDNs”).

44. Yoo, *supra* note 40, at 97-98.

45. *Id.* at 98.

are no marginal or interconnection costs associated with it.<sup>46</sup> The volume of such traffic has, for much of the past decade, been small because ISP subscribers normally want to view content hosted by a network other than the ISP's. A common example of such intranetwork traffic is newsgroup access where newsgroup servers may be operated by the ISP on the ISP's network.<sup>47</sup> Peer-to-peer applications where a "swarm" of end-users combine to share files may also involve substantial intranetwork traffic.<sup>48</sup>

### *B. Technologies and Trends in Data: More Revenue and Less Expense for ISPs<sup>49</sup>*

Recently, cost reductions and changes in market structures have placed ISPs in an ideal position. Over the last few years, the cost of a bit-per-second of transit has continued to fall from already low prices, while more of the traffic ISPs carry to end users is coming from peering partners or paid peering partners, thereby reducing costs—and sometimes even creating a revenue center—for ISPs. Since ISPs are often the only ways to reach those end users, major ISPs now have the market power to raise prices for content generators. All the while, peer-to-peer applications like BitTorrent, which have traditionally saturated an ISP's transit links, are being shaped with new technology to prefer using intranetwork connections. Together, this amounts to both cost reductions and new revenue streams for ISPs.

Without a doubt, data usage is on the rise, but prices are down. In 2010, North America generated on average 6,998 petabytes ("PB")<sup>50</sup> of Internet traffic per month,<sup>51</sup> and Cisco estimated that this figure had increased to over 10,000 PB per month by 2011.<sup>52</sup> Most large ISPs and

---

46. See Van der Berg, *supra* note 14.

47. See, e.g., *About Charter*, CHARTER, <http://www.charter.com/footer/footerPage.jsp?tag=about> (last visited Jan. 19, 2012).

48. See, e.g., Nate Anderson, *BitTorrent Has New Plan to Shape Up P2P Behavior*, ARS TECHNICA (Dec. 9, 2008, 12:30 PM), <http://arstechnica.com/old/content/2008/12/bittorrent-has-new-plan-to-shape-up-p2p-behavior/>.

49. Much of the following discussion focuses on the practices of Comcast and Level 3. This is not only because Level 3 carries a plurality of wireline Internet traffic, but also because the recent dispute between the two companies has made public the usually secret peering and transit agreements that connect the Internet. Comcast was also in the FCC spotlight earlier due to its network management practices. However, the economics, technologies and regulations extend across many U.S. ISPs, CDNs, and backend networks, and the trends described should be widely applicable.

50. A "byte" is eight bits. A petabyte is one quadrillion (1,000,000,000,000,000) bytes, or 1 million gigabytes.

51. See *Cisco Visual Network Index: Forecast and Methodology, 2010-2015*, CISCO (June 1, 2011), [http://www.df.cl/prontus\\_df/site/artic/20110602/asocfile/20110602113637/white\\_paper\\_c11\\_481360\\_1.pdf](http://www.df.cl/prontus_df/site/artic/20110602/asocfile/20110602113637/white_paper_c11_481360_1.pdf).

52. See *Cisco Visual Networking Index: Forecast and Methodology, 2011-2016*, CISCO (May 30, 2012), <http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/>

backend service providers have agreements that are shrouded in secrecy, which makes company-specific data difficult to obtain, but several studies on transit prices have been generated by polling providers that asked for a quote for interconnection at the minimum rate. One study polled worldwide metropolitan areas and found that rates in New York in 2011 had fallen fairly consistently since at least 2007, and that these rates were among the cheapest in the world.<sup>53</sup> Another study of Internet transit prices in the United States observed an exponential decline, from a price of \$1,200 per megabit per second (“Mbps”) in 1998 to \$5 per Mbps in 2010, with the expectation that prices will continue their “twelve year quest towards \$0/Mbps pricing.”<sup>54</sup>

Perhaps more importantly, more data is coming from CDNs, which means that ISPs can take advantage of peering or paid peering arrangements. In 2011, Netflix alone accounted for 27.6% of Internet traffic received by wireline ISPs, and over 30% of traffic at peak hours.<sup>55</sup> At least Comcast, and perhaps other ISPs, have been able to secure paid-peering agreements from the CDN that delivers content for Netflix.<sup>56</sup> This means that over one quarter of Comcast’s data is actually a revenue source, not a cost center. Overall, Internet video currently makes up 37% of consumer Internet traffic, and is expected to grow to 62% of overall traffic by 2015.<sup>57</sup>

This shift in data use is coupled with a shift in bargaining power away from content producers and backend providers and towards ISPs. The high cost of upgrading ISP networks and the network externalities that such ISPs with a large number of end users enjoy will tend to funnel money from the CDNs to the ISPs.<sup>58</sup> While some parties have expressed concern about this new power shift in favor of ISPs, the status quo seems to have the government’s blessing. This economic theory was displayed in a recent peering dispute between Level 3 and Comcast. Level 3 sells transit on its nationwide network, runs a CDN, and, until 2010, connected to Comcast’s network under a peering arrangement. In fall 2010, Level 3 won a contract

---

ns537/ns705/ns827/white\_paper\_c11-481360\_ns827\_Networking\_Solutions\_White\_Paper.html (this figure includes non-residential uses such as business and wireless).

53. See *IP Transit Prices Continue to Decline, Geographic Differences Remain*, TELEGEOGRAPHY (Nov. 1, 2011), <http://www.telegeography.com/products/commsupdate/articles/2011/11/01/ip-transit-prices-continue-to-decline-geographic-differences-remain/>.

54. ANNA-MARIA KOVACS, TECH POLICY INST., *INTERNET PEERING AND TRANSIT* 16-20 (2012), available at <http://www.techpolicyinstitute.org/files/amkinternetpeeringandtransit.pdf>; see also William B. Norton, *Internet Transit Prices – Historical and Projected*, DRPEERING (Aug. 2010), <http://drpeering.net/white-papers/Internet-Transit-Pricing-Historical-And-Projected.php>.

55. See SANDVINE, *GLOBAL INTERNET PHENOMENA REPORT 2* (Oct. 2011), available at [http://www.sandvine.com/downloads/documents/10-26-2011\\_phenomena/Sandvine%20Global%20Internet%20Phenomena%20Report%20-%20Fall%202011.pdf](http://www.sandvine.com/downloads/documents/10-26-2011_phenomena/Sandvine%20Global%20Internet%20Phenomena%20Report%20-%20Fall%202011.pdf).

56. See Anderson, *supra* note 27.

57. See *Cisco Visual Networking Index*, *supra* note 52, at 2, 5.

58. See Yoo, *supra* note 40, at 96.

to serve as the primary CDN for Netflix and asked Comcast to provide more ports on which to interconnect. Comcast balked and required that Level 3 begin to pay for peering.<sup>59</sup>

Level 3 initially complained in a press release that this agreement violated “open internet” principles because it required Level 3 to pay for faster access.<sup>60</sup> However, the FCC was dismissive of the issue.<sup>61</sup> Level 3 went so far as to formally file a complaint with the Commission.<sup>62</sup> The Commission addressed the issue in a footnote in its final notice of proposed rulemaking on net neutrality, entitled *Preserving the Open Internet*. The FCC stated “[w]e do not intend our rules to affect existing arrangements for network interconnection, including existing paid peering arrangements.”<sup>63</sup>

Finally, new technologies are lessening the problems that network services like BitTorrent create. BitTorrent is problematic for ISPs because rather than utilizing the network in short bursts, it continues to consume bandwidth hour after hour, even when all files have finished downloading. This led one ISP to describe the technology as “a cancer that will consume all the bandwidth that I can provide.”<sup>64</sup> But Comcast seems well on its way to solving this technological hurdle in a way that allows customers to use BitTorrent while not overpowering the ISP’s network. While simultaneously fighting a court battle against the FCC over its network management practices,<sup>65</sup> Comcast cooperated with BitTorrent and agreed to implement “protocol agnostic” policies, which would throttle the heaviest

---

59. For a neutral explanation of the events, see Anderson, *supra* note 27. For an explanation of the dispute from Comcast’s perspective, see Anderson, *supra* note 15. See also Letter from Joseph Waz, Senior Vice President, External Affairs and Pub. Policy Counsel & Lynn Charytan, Vice President, Legal Regulatory Affairs, Comcast Corp. to Sharon Gillet, WCB Bureau Chief, FCC, Preserving the Open Internet, FCC GN Docket No. 09-191 (rel. Nov. 30, 2010), available at <http://apps.fcc.gov/ecfs/document/view?id=7020921811>. For more on Level 3’s perspective, see Nate Anderson, *How Comcast Became a Toll-Collecting, Nuke-Wielding Hydra*, ARS TECHNICA (Nov. 30, 2010, 4:35 PM), <http://arstechnica.com/tech-policy/news/2010/11/how-comcast-became-a-toll-collecting-hydra-with-a-nuke/>.

60. See Press Release, Level 3, Level 3 Communications Issues Statement Concerning Comcast’s Actions (Nov. 29, 2010), available at <http://web.archive.org/web/20101225065848/http://www.level3.com/index.cfm?pageID=491&PR=962> (accessed via the Internet Archive).

61. See Cecilia Kang, *FCC Defends Net Neutrality to Lawmakers, Says Level 3-Comcast Not Covered by Rules*, WASH. POST (Feb. 16, 2011), [http://voices.washingtonpost.com/posttech/2011/02/fcc\\_defends\\_net\\_neutrality\\_to.html](http://voices.washingtonpost.com/posttech/2011/02/fcc_defends_net_neutrality_to.html).

62. Letter from John M. Ryan, Exec. Vice President & Chief Legal Officer, Level 3, to Julius Genachowski, Chairman, FCC, Preserving the Open Internet, FCC GN Docket No. 09-191 (rel. Feb. 17, 2011), available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7021030031>.

63. Preserving the Open Internet, *Report and Order*, FCC 10-201, para. 67 n.209 (2010), available at [http://fjallfoss.fcc.gov/edocs\\_public/attachmatch/FCC-10-201A1.pdf](http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-10-201A1.pdf).

64. *Comcast Throttles BitTorrent Traffic, Seeding Impossible*, TORRENTFREAK (Aug. 17, 2007), <http://torrentfreak.com/comcast-throttles-bittorrent-traffic-seeding-impossible/>.

65. See *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

users during peak usage time, but not target BitTorrent specifically.<sup>66</sup> BitTorrent has also developed new technologies that prefer connecting to intranetwork peers, rather than taxing Comcast's existing transit.<sup>67</sup> These policies and technologies, again, seem to have the government's blessing because not only did Comcast win its court case,<sup>68</sup> but the final net neutrality rules state that Comcast's current congestion management policy "likely satisfies the transparency rule with respect to congestion management practices."<sup>69</sup>

## II. ISPS INSTITUTE DATA CAPS

Despite these interconnection arrangements, many ISPs have instituted usage limits, or "data caps," which are restrictions on the amount of data a subscriber may send or receive.<sup>70</sup> The terms of these arrangements vary greatly among ISPs. While the motivations behind such programs are not uniform, one key motivation, particularly for cable ISPs, is to stem the conversion of cable TV subscribers to online video subscribers.<sup>71</sup>

### A. Cataloguing Data Caps: Size, Penalties, and Staying Power

Data cap policies come in a variety of forms, depending on the ISP offering them. The limits have ranged from 1GB per month to 600 GB per month.<sup>72</sup> Similarly, the penalties have included warnings, overage fees, and even disconnection. Finally, some plans have been instituted with relatively little resistance while others have spawned congressional legislation.<sup>73</sup> By listing the different plans, policies, and reactions, one can better understand what the motives for data caps might be.

Time Warner Cable ("TWC") was one of the first ISPs to not only announce a data cap plan, but also to cancel it. In its trial program, users were assigned usage caps ranging from 1GB per month to 60GB per month, depending on their subscription plan.<sup>74</sup> Customers who exceeded

---

66. Jonathan Skillings, *Happily Ever After for Comcast and BitTorrent?*, CNET NEWS (Mar. 27, 2008, 7:17 AM), [http://news.cnet.com/8301-10784\\_3-9904448-7.html?tag=txt](http://news.cnet.com/8301-10784_3-9904448-7.html?tag=txt).

67. Anderson, *supra* note 48.

68. *Comcast*, 600 F.3d at 644.

69. Preserving the Open Internet, *supra* note 63, at para. 34.

70. Daniel Havivi, *Metered-Usage Billing and the Broadband Internet Fairness Act*, 11 N.C. J.L. & TECH. ONLINE EDITION 214, 216-18 (2010).

71. *Id.*

72. *Id.*; see also Jon Brodtkin, *Comcast Data Caps Hit Test Cities, Range from 300GB to 600GB*, ARS TECHNICA (Sept. 18, 2012, 2:55 PM), <http://arstechnica.com/business/2012/09/comcast-data-caps-hit-test-cities-range-from-300gb-to-600gb/>.

73. Havivi, *supra* note 70, at 216-18.

74. *Id.*; see also Nate Anderson, *The Price-Gouging Premiums of Time Warner Cable's Data Caps*, ARS TECHNICA (Apr. 9, 2009, 9:16 AM), <http://arstechnica.com/tech-policy/news/2009/04/the-price-gouging-premiums-of-time-warner-cables-data-caps/>.



those limits would be charged \$1 per GB of data used beyond the caps.<sup>75</sup> The tremendous unpopularity of this plan led lawmakers to propose legislation that would require ISPs to justify charges for usage-based service plans and prevent them from charging monopoly prices.<sup>76</sup> In response to customer complaints and looming legislation, TWC reversed its policy, and has not introduced any data cap plan to date.<sup>77</sup>

In 2008, Comcast also rolled out a data cap scheme, although with much higher limits than TWC.<sup>78</sup> Under this Comcast plan, any use over 250 GB per month was considered excessive, and customers who exceeded the limit would be contacted by customer service and told to cut back.<sup>79</sup> Customers who continued to exceed the 250 GB limit risked having their service disconnected.<sup>80</sup> Unlike the TWC plan, Comcast has no provisions for charging overages.<sup>81</sup> AT&T has a similarly high cap (150 GB and 250 GB, depending on the plan) for its customers, and charges overages of \$10 per 50 GB.<sup>82</sup> These sorts of caps seem to have attracted less scrutiny, with at least one industry watchdog admitting the caps are “relatively high.”<sup>83</sup>

In mid-2012, Comcast announced that it would be suspending data caps, but this change was short-lived. Citing its desire to periodically review its service offerings, Comcast removed the 250 GB limit and told journalists that it was “out of the cap business.”<sup>84</sup> In the same press release announcing the end of the 250 GB cap, however, Comcast stated it would begin testing data limits of 300 GB while allowing customers to purchase additional allotments of 50 GB for \$10.<sup>85</sup> Tests of such plans began in

---

75. Ryan Paul, *40GB for \$55 Per Month: Time Warner Bandwidth Caps Arrive*, ARS TECHNICA (June 3, 2008, 10:18 AM), <http://arstechnica.com/old/content/2008/06/40gb-for-55-per-month-time-warner-bandwidth-caps-arrive/>.

76. See Havivi, *supra* note 70, at 222 (citing H.R. 2902, 111th Cong. § 1 (2009)).

77. Nate Anderson, *They're Gone! After Outcry, Time Warner Uncaps the Tubes*, ARS TECHNICA (Apr. 16, 2009, 4:02 PM), <http://arstechnica.com/tech-policy/news/2009/04/theyre-gone-after-outcry-time-warner-uncaps-the-tubes/>.

78. See Jacqui Cheng, *It's Official: Comcast Starts 250GB Bandwidth Caps October 1*, ARS TECHNICA (Aug. 28, 2008, 5:16 PM), <http://arstechnica.com/old/content/2008/08/its-official-comcast-starts-250gb-bandwidth-caps-october-1/>.

79. *Announcement Regarding An Amendment to Our Acceptable Use Policy*, COMCAST, <http://xfinity.comcast.net/terms/network/amendment/> (last visited Dec. 20, 2012).

80. Brian Stelter, *Comcast to Place a Cap on Internet Downloads*, N.Y. TIMES (Aug. 29, 2008), [http://www.nytimes.com/2008/08/30/technology/30comcast.html?\\_r=0](http://www.nytimes.com/2008/08/30/technology/30comcast.html?_r=0).

81. See *id.*

82. Ryan Singel, *Shed a Tear: The Age of Broadband Caps Begins Monday*, WIRED (Apr. 29, 2011, 3:26 PM), <http://www.wired.com/business/2011/04/att-broadband-caps/>.

83. See Cheng, *supra* note 78 (citing a spokesperson for Free Press).

84. Cathy Avgirir, *Comcast to Replace Usage Cap With Improved Data Usage Management Approaches*, COMCAST (May 17, 2012), <http://blog.comcast.com/2012/05/comcast-to-replace-usage-cap-with-improved-data-usage-management-approaches.html>; Jon Brodtkin, *Comcast Answers Data Cap Questions*, ARS TECHNICA (May 17, 2012, 4:05 PM), <http://arstechnica.com/business/2012/05/comcast-answers-data-cap-questions/>.

85. Avgirir, *supra* note 84.

limited markets in August of 2012, and additional data packages with caps as high as 600 GB per month are also available.<sup>86</sup>

Data caps are not unique to the United States. Rogers, a Canadian wireless and cable provider, currently offers plans with data usage caps ranging from a TWC-esque 2 GB per month to a Comcast sized 500 GB per month for customers with a fiber optic connection.<sup>87</sup> Similar to the AT&T and TWC arrangements, overage fines up to \$50 per month will be charged.<sup>88</sup> As discussed *supra*, the Canadian Radio-television and Telecommunications Commission (“CRTC”) has regulated the sale of transit by Rogers to other ISPs,<sup>89</sup> but they have not yet prohibited data caps imposed by ISPs.

### B. *Why Cap? ~~Costs and Congestion~~ Money and Power*

Why have ISPs instituted these sometimes draconian network management policies? While ISPs tout these plans as equitable solutions to make heavy data users pay their fair share, the true reasons are to create a new revenue source and retain high value cable TV subscribers.

A popular way to sell data caps to users is to maintain that it is unfair that the 99% should be subsidizing the excessive usage of the top 1% of data users.<sup>90</sup> However, this argument does not survive close scrutiny. As noted in Part I, *supra*, video—the most data intensive Internet use and a plurality, if not majority, of most ISP traffic—may actually become a revenue source, as CDNs capitulate to ISP power. This economic analysis is supported by the ISPs’ own facts and figures. In 2008, the same year TWC’s data cap program launched, TWC’s costs for data access dropped 12% while the number of subscribers climbed 10%.<sup>91</sup> Likewise, Rogers’ regulatory filings admitted that the price of overages “does not necessarily reflect the cost of supplying network capacity.”<sup>92</sup>

Another argument used to promote the validity of data cap policies is that caps are needed to prevent network congestion. ISPs argue that without drastic action existing infrastructure will not be able to accommodate the

---

86. Brodtkin, *supra* note 72.

87. See *Rogers Hi-speed Internet Service*, ROGERS, <http://www.rogers.com/web/link/hispeedBrowseFlowDefaultPlans> (last visited Mar. 21, 2013).

88. See *id.*

89. See Chung, *supra* note 16.

90. See Anderson, *supra* note 74.

91. See Ryan Singel, *Time Warner Cable Earnings Refute Bandwidth Cap Economics*, WIRED (April 9, 2009, 2:50 PM), <http://web.archive.org/web/20090502032412/http://www.wired.com/epicenter/2009/04/time-warner-cab/> (accessed via the Internet Archive).

92. Omar El Akkad, Susan Krashinsky & Iain Marlow, *Netflix Tweaks Canadian Service to Lower Data Usage*, GLOBE & MAIL (Mar. 29, 2011, 12:01 PM), <http://www.theglobeandmail.com/news/technology/tech-news/netflix-tweaks-canadian-service-to-lower-data-usage/article1961342/>.

volume of traffic.<sup>93</sup> This makes some intuitive sense—certainly most Internet users have occasionally been frustrated with a slow connection—but data caps will do little to deal with congestion. Netflix CEO Reed Hastings observed that congestion is a product of “peak usage times, and monthly caps do little to alter the times at which customers use the Internet.”<sup>94</sup> Similarly, BitTorrent CEO Doug Walker criticized the TWC metering plans as a business decision that does not help customers and stated that “Time Warner wouldn’t have to do this if they worked with P2P companies like BitTorrent to make their networks more efficient.”<sup>95</sup> Even one Comcast Senior Vice President, Joe Waz, suggested that peak usage was a main source of congestion and that bandwidth caps do little to change that.<sup>96</sup> Additionally, Comcast’s own white paper on its network management practices related to BitTorrent states:

These congestion management practices are independent of, and should not be confused with, our recent announcement that we will amend the “excessive use” portion of our Acceptable Use Policy, effective October 1, 2008, to establish a specific monthly data usage threshold of 250 GB per account for all residential HSI customers . . . . That cap does not address the issue of network congestion, which results from traffic levels that vary from minute to minute.<sup>97</sup>

Overall, this concern about congestion is a recurring theme, akin to Chicken Little yelling “the sky is falling!” As early as 1993, the New York Times wrote of data congestion on the information superhighway, with one network operator complaining that with thousands of people connecting to his system at once “free services like those on the Internet can’t continue indefinitely.”<sup>98</sup> In 1996, technologist Bob Metcalfe warned of coming “gigalapses” where billions of users would suffer Internet outages.<sup>99</sup> More

---

93. See, e.g., Nate Anderson, *Time Warner Tries Again, Fails to Justify Caps and Charges*, ARS TECHNICA (April 10, 2009, 2:37 PM), <http://arstechnica.com/tech-policy/news/2009/04/time-warner-cable-to-press-stop-questioning-our-caps/>.

94. El Akkad et al., *supra* note 92.

95. Marguerite Reardon, *BitTorrent to Comcast: Let’s be Friends*, CNET NEWS (Mar. 20, 2008, 12:00 PM), [http://news.cnet.com/8301-10784\\_3-9899677-7.html](http://news.cnet.com/8301-10784_3-9899677-7.html).

96. Declan McCullagh, *Q&A with Comcast’s Joe Waz About BitTorrent Detente*, CNET NEWS (Mar. 27, 2008, 10:32 AM), [http://news.cnet.com/8301-10784\\_3-9904689-7.html](http://news.cnet.com/8301-10784_3-9904689-7.html) (interviewing Mr. Waz before Comcast had announced its own data caps).

97. Filing of Comcast Corp., Attachment B at 1-2 & n. 3, Broadband Indus. Practices, WC Docket No. 07-52 (rec. Sept. 25, 2008), available at [http://downloads.comcast.net/docs/Attachment\\_B\\_Future\\_Practices.pdf](http://downloads.comcast.net/docs/Attachment_B_Future_Practices.pdf).

98. John Markoff, *Business Technology: Jams Already on Data Highway*, N.Y. TIMES (Nov. 3, 1993), <http://www.nytimes.com/1993/11/03/business/business-technology-jams-already-on-data-highway.html>.

99. See Bob Metcalfe, *Yes! The Internet is on the Verge of Collapse*, NETWORK WORLD (Nov. 18, 1996), <http://www.networkworld.com/netresources/1118metcalfe.html>.

recently, in 2007 the Discovery Institute<sup>100</sup> warned that the incredible volume of exabytes of data being sent over the Internet (an “Exaflood”) would bring the network to its knees, causing Internet brownouts by 2009 (especially if net neutrality rules were implemented).<sup>101</sup>

Of course, the Internet has continued on past 1993, 1996, and 2009, and is now steadily continuing through 2013. Assertions that the only way to avoid devastating Internet congestion is by implementing data caps do not truly address the causes of congestion. Instead they reiterate the cry that “the sky is falling.”

So why are data caps being implemented? One possible reason is money. Rogers is not only a cable company but is also the largest cellular phone service provider in Canada.<sup>102</sup> As such, they are familiar with the money that overage charges can bring in and would love to extend this business model to Internet access. AT&T and TWC’s now defunct plans may also have been an extension of this line of reasoning. Indeed, the practice has been termed “price-gouging.”<sup>103</sup>

But this reasoning alone is incongruous with Comcast’s data cap proposals. Comcast’s initial 250 GB limit, in place from 2008 to 2012, made no provision for charging overage fees, only for disconnection. Even under the 300 GB plan, Comcast emphasizes that “very few customers” would use more than the 300 GB allotted to them.<sup>104</sup> Furthermore, all the ISPs that have data caps emphasize how only a tiny fraction of users would exceed the data limits or pay overages.<sup>105</sup> Limiting traffic also limits potential revenue from paid peering agreements. Therefore, simply creating another revenue source is not the entire purpose of data cap policies.

A significant reason for implementing data caps is to prevent customer migration from traditional television services to Internet video providers. Comcast and TWC both derive a majority of their revenue from traditional cable TV offerings. In 2010, Comcast derived 54.5% of its total revenue, or \$19.5 billion, from cable video services, compared to \$8.6

---

100. The organization is most notable as proponents and lobbyists for Intelligent Design as an “alternative” theory to evolution. See DISCOVERY INST., <http://www.discovery.org> (last visited Mar. 11, 2013).

101. See Bret Swanson, *The Coming Exaflood*, WALL ST. J. (Jan. 20, 2007), <http://www.discovery.org/a/3869>.

102. See ROGERS, <http://www.rogers.com> (last visited Nov. 25, 2012).

103. Anderson, *supra* note 74.

104. Avgiris, *supra* note 84.

105. See, e.g., *About Excessive Use of Data*, COMCAST (Mar. 9, 2012, 8:58:03 PM), <http://web.archive.org/web/20120427202025/http://customer.comcast.com/help-and-support/internet/common-questions-excessive-use> (accessed via the Internet Archive); Nate Anderson, *Time Warner Rationale for Bandwidth Caps Doesn’t Add Up*, ARS TECHNICA (Apr. 1, 2009, 9:16 PM), <http://arstechnica.com/tech-policy/news/2009/04/get-ready-for-metered-broadband-texas/>; Nate Anderson, *AT&T Data Cap Explanation Invites Skepticism*, ARS TECHNICA (Mar. 18, 2011, 3:02 PM), <http://arstechnica.com/tech-policy/news/2011/03/att-officially-announces-data-caps-wont-talk-about-congestion/>.

billion from high speed Internet.<sup>106</sup> TWC derived 58.2%, or \$11 billion, from cable TV, compared to \$5 billion from high speed Internet.<sup>107</sup> Even AT&T, which was not traditionally a cable provider, now offers cable-like TV services and has over 3 million users.<sup>108</sup> Peering revenues, which are not itemized in filings, are unlikely to replace those profits. Even if they might, no business would want to risk such a dramatic shift in its product offerings if it did not have to.

Further, most data caps are set at levels that allow customers to use Internet video offerings to complement, but not replace, traditional subscription TV services. Americans watch a lot of TV—about 153 hours per person per month.<sup>109</sup> Comcast's own FAQ explains that Netflix "best quality" uses 2.3 GB per hour.<sup>110</sup> Simple math reveals that to replace the high definition ("HD") Comcast viewing experience with HD Netflix would use approximately 352 GB of data per month (with no room for other web browsing). This is substantially in excess of the 250 GB cap Comcast previously used, or even the 300 GB cap to which it is currently migrating. The 352 GB figure also does not account for the possibility of multiple video users on the same connection.

As if to emphasize the preferential status of its cable TV subscribers, Comcast, while still operating under the 250 GB cap, announced changes to its "Xfinity" streaming TV service. Customers streaming Xfinity online TV to their Xbox 360s would not have such content counted against their 250 GB cap.<sup>111</sup> Of course, such a preferential service was only available to customers who subscribed to both Comcast TV and Internet services.<sup>112</sup> Similar self-promotion policies have been engaged in by Canadian ISP Shaw.<sup>113</sup>

At the time of the change to the Xfinity streaming policy, Comcast argued that such differential treatment is permissible because the data is "being delivered over [Comcast's] private IP network."<sup>114</sup> However, this

---

106. Comcast Corp., 2010 Annual Report (Form 10-K), at 39 (Feb. 25, 2011), *available at* <http://www.sec.gov/Archives/edgar/data/1166691/000119312511047243/d10k.htm>.

107. Time Warner Cable Inc., Annual Report (Form 10-K), at 42 (Feb. 18, 2011), *available at* <http://www.sec.gov/Archives/edgar/data/1377013/000095012311015515/g25889xxe10vk.htm>.

108. See Jim O'Neill, *AT&T Adds 202,000 U-verse TV Subs in Q2; Revenue Up, Profits Slip*, FIERCEIPTV (July 21, 2011) <http://www.fierceiptv.com/story/att-adds-202000-u-verse-tv-subs-q2-revenue-profits-slip/2011-07-21>.

109. See *Americans Watching More TV Than Ever; Web and Mobile Video Up Too*, NIELSENWIRE (May 20, 2009), [http://blog.nielsen.com/nielsenwire/online\\_mobile/americans-watching-more-tv-than-ever/](http://blog.nielsen.com/nielsenwire/online_mobile/americans-watching-more-tv-than-ever/).

110. See *About Excessive Use of Data*, *supra* note 105.

111. See Kyle Orland, *Comcast: Xbox 360 On Demand Streams Won't Count Against Data Caps*, ARS TECHNICA (Mar. 26, 2012, 2:54 PM), <http://arstechnica.com/gaming/2012/03/comcast-xbox-360-on-demand-streams-wont-count-against-data-caps/>.

112. See *id.*

113. See *id.*

114. *Id.*

reasoning has already come under attack. Vint Cerf noted that Comcast's explanation for its Xfinity streaming service "sounds as if they are prioritizing [in violation of net neutrality principles] to say nothing of not counting against the caps."<sup>115</sup> Internet advocacy group Public Knowledge has also commented to the FCC that by any reasonable definition, "the Xfinity app is plainly a broadband service: it is delivered over the same broadband connection as other Internet services to Internet-connected devices, and consists of streaming video using the Internet Protocol."<sup>116</sup>

The effects of data caps are already being felt by Netflix. In response to the extremely low data caps offered by Canadian ISPs, Netflix has lowered its default streaming quality to one that uses less bandwidth.<sup>117</sup> These problems are only likely to be exacerbated as Netflix rolls out more content in high definition, considers 3D streaming, and starts to host exclusive content.<sup>118</sup>

### III. REGULATORY SOLUTIONS: ANTITRUST, NET NEUTRALITY, AND PRIVATE AGREEMENTS

Fortunately, there are several tools available to regulators to ensure that customers can transition to high quality online video programming. Given the regional power that cable companies have, antitrust action may be an appropriate tool to ensure that cable ISPs do not over-limit customer broadband. The new net neutrality rules may also open the door to FCC regulation of all ISPs (not just cable companies), although the vagueness of the actual rulemaking might hinder attempts to regulate this ISP conduct.<sup>119</sup> Finally, individual settlements with ISPs may also allow regulators to chip away at bandwidth caps on an ad hoc basis.

#### A. Antitrust Regulation

Cable companies that engage in data capping may be subject to regulation under the Sherman Antitrust Act. Under this statute, "[e]very person who shall monopolize, or attempt to monopolize, . . . any part of the trade or commerce among the several States, or with foreign nations, shall

---

115. Cyrus Farivar, *Extra Lane: How Comcast Assures that Xfinity TV on Xbox 360 Works Well*, ARS TECHNICA (May 22, 2012, 8:20 AM), <http://arstechnica.com/tech-policy/2012/05/extra-lane-how-comcast-assures-that-xfinity-tv-on-xbox-360-works-well/>.

116. Comments of Pub. Knowledge, Petition to Enforce Merger Conditions, FCC MB Docket No. 10-56 (rel. Aug. 1, 2012).

117. See El Akkad et al., *supra* note 92.

118. See, e.g., Catharine Smith, *Netflix Gets Exclusive 'Arrested Development' Streaming Rights for New Season*, HUFFINGTON POST (Nov. 19, 2011, 12:00 PM), [http://www.huffingtonpost.com/2011/11/18/netflix-arrested-development\\_n\\_1102443.html](http://www.huffingtonpost.com/2011/11/18/netflix-arrested-development_n_1102443.html).

119. Note that this paper does not address whether the FCC's net neutrality rules will ultimately be upheld, only what effect regulation based on such rules might have.

be deemed guilty of a felony.”<sup>120</sup> The Supreme Court has identified two elements to a monopoly offense action under the Sherman Antitrust Act: “(1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power. . . .”<sup>121</sup>

### 1. Possession of Monopoly Power: Too Much Success

Over the past two decades, the cable industry has worked to cement its importance to home viewers while simultaneously shaking off attempts at local regulation. It has largely succeeded, but through that success the cable industry has demonstrated that it has monopoly power within its regional service area. This was enunciated in the recent settlement agreement between Comcast, the FCC, and the Department of Justice (“DOJ”) to get regulatory approval of Comcast’s purchase of a majority share in NBC Universal (“NBCU”). The underlying reasoning in the consent decree is arguably applicable to other cable companies.

During the 1980s, the DOJ and FCC were hesitant to engage the cable industry in antitrust actions. At that time, the FCC took a broad view of the market in which cable companies competed and concluded that franchises facing competition from three or more unduplicated broadcast signals did not have monopoly power and should not be subject to intense scrutiny.<sup>122</sup> The DOJ took a much narrower view of the market cable TV companies compete in, but it concluded that regulation was best left to local regulators.<sup>123</sup>

The FCC’s initial reasoning regarding cable’s monopoly power has not stood the test of time. As noted in the DOJ’s complaint opposing the Comcast-NBCU merger, some cable companies have launched their own networks with exclusive programming.<sup>124</sup> Additionally, the order of distribution has changed. While movies used to make their television premiere on broadcast channels, they now first appear on premium cable channels like HBO, then on regular cable channels, before ultimately ending up on the network channels.<sup>125</sup> Finally, the traditional model of content distribution, where a particular national network presents the first run of a show before broadcast syndication and finally cable syndication<sup>126</sup>

---

120. 15 U.S.C. § 2 (2006).

121. *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966).

122. *See* Glenn B. Manishin, *Antitrust Regulation in Cable Television: Federal Policy at War with Itself*, 6 CARDOZO ARTS & ENT. L.J. 75, 86 n.68 (1987) (citing Amendment of Parts 1, 63, and 76 of the Comm’n’s Rules to Implement the Provisions of the Cable Commc’ns Policy Act of 1984, *Report and Order*, FCC 85-179, 50 Fed. Reg. 18637, para. 100 (1985)).

123. *See id.* at 87.

124. *See* Complaint at para. 30, *United States v. Comcast Corp.*, No. 1:11-CV-00106, 2011 WL 5402137 (D.D.C. Jan. 18, 2011).

125. *See id.* at para. 23.

126. *See id.* at para. 22.

is being upset by increasing amounts of original programming hosted on cable networks, such as USA Network.<sup>127</sup>

Similarly, the DOJ can no longer claim that local franchises provide a complete check on cable companies. The power of municipalities to regulate cable franchises is premised on those franchises being a “cable service” as defined in the Communications Act. This premise was destroyed by the *City of Portland* case,<sup>128</sup> in which the Ninth Circuit held that municipalities can only regulate the one-way communication (i.e., traditional TV service) of a cable franchise, not its telecommunication services.<sup>129</sup> While municipalities may still have some power to regulate old fashioned TV offerings, even this line is being blurred as content moves online to services like XfinityTV.<sup>130</sup> Local boards certainly do not have the power to regulate Internet usage caps.

These factors have led to regulators being much more willing to address potential antitrust actions by the cable companies. Both the FCC and DOJ investigated Comcast after it announced its plans to merge with NBCU.<sup>131</sup> The DOJ reached a settlement with the defendant<sup>132</sup> while the FCC promulgated complementary rules.<sup>133</sup> While the facts of this case were specific to Comcast and related to their potential acquisition of nationwide monopoly power through the purchase of a major content producer (NBCU),<sup>134</sup> the shifts in content creation, distribution, and regulation are common across the cable industry and would likely allow the DOJ to have wide latitude to conclude that cable ISPs have monopoly power over the distribution of professional full-length video programming within their local franchise areas.

## 2. Willful Maintenance of Monopoly Power

Attempting to retain cable TV subscribers by denying competitors sufficient capacity to compete is nearly the hornbook definition of willful maintenance of monopoly power. In fact, one hornbook defines

---

127. The DOJ notes that USA is the highest-rated cable network. *Id.* at para. 50. It has also substantially increased its original programming over approximately the last half-decade. See USA NETWORK, <http://www.usanetwork.com> (last accessed Jan. 19, 2012).

128. See *AT&T Corp. v. City of Portland*, 216 F.3d 871, 876 (9th Cir. 2000) (holding that the provision of broadband service was not a cable service, and the city could not force the franchise to give competitors access to its local network).

129. *Id.* at 876-77.

130. See XFINITYTV, <http://xfinitytv.comcast.net> (last visited Jan. 19, 2012).

131. See App’ns of Comcast Corp., Gen. Elec. Co. & NBC Universal, Inc., For Consent to Assign Licenses & Transfer Control of Licensees, *Memorandum Opinion and Order*, FCC 11-4, para. 1 (2011) [hereinafter *Comcast-NBCU Order*], available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-11-4A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-4A1.pdf).

132. See *United States v. Comcast Corp.*, No. 1:11-CV-00106, 2011 WL 5402137 (D.D.C. Sep. 1, 2011).

133. See *Comcast-NBCU Order*, *supra* note 131.

134. See *Comcast*, 2011 WL 5402137.



anticompetitive conduct as “conduct to obtain or maintain monopoly power as a result of competition on some basis other than the merits . . . . It may . . . be conduct without a legitimate purpose that makes sense only because it eliminates competition.”<sup>135</sup> With data caps, Comcast, TWC, Rogers, et al. are not competing on the quality of the programming, the variety of the shows offered, or the timeliness of new releases, but instead on the amount of programming that can be viewed. Furthermore, the amount of programming is not being limited because it costs the cable company tremendous amounts to deliver—in fact, it is likely generating them revenue.<sup>136</sup> Instead, the amount of programming is being limited primarily because such limits will prevent TV subscribers from changing their viewing habits.<sup>137</sup>

Any defense would likely focus on the reasonability of data caps, with the TV cable companies arguing that the data cap policies are actually for the competitive purpose of preventing network congestion, saving costs, and being fair to end users who do not consume substantial amounts of data.<sup>138</sup> However, as already discussed at length, these measures do little to reduce congestion since they do not target peak use periods,<sup>139</sup> and much of the data used by applications like Netflix is actually a revenue source for ISPs. Certainly, the ISPs will argue otherwise. Given these conflicting views on data caps, a court might shy away from in depth analysis, as in *Telex v. IBM*, where the district court refused to hold that the development of Integrated Circuits amounted to an illicit tying agreement, noting “to rule otherwise would enmesh the courts with technical and uncertain inquiry into the technological justifiability of functional integration and cast unfortunate doubt on the legality of product innovations in serious detriment to the industry and without any legitimate antitrust purpose.”<sup>140</sup> However, data caps are not, at their core, a technology issue. An antitrust investigation of capping practices would not focus on the technological innovations that make caps possible, but instead the economic motives that make such caps desirable. Courts have been comfortable with such economically grounded inquiry even when major technology firms are involved.<sup>141</sup> Additionally, discovery could shed light on the peering, transit,

---

135. 58 C.J.S. *Monopolies* § 37 (2012).

136. *See supra* Part I(b).

137. *See supra* Part II(b).

138. *See, e.g.,* Anderson, *Time Warner Rationale for Bandwidth Caps Doesn't Add Up*, ARS TECHNICA (April 1, 2009, 9:16 PM), <http://arstechnica.com/tech-policy/news/2009/04/get-ready-for-metered-broadband-texas/>.

139. *See* Bill D. Herman, *Opening Bottlenecks: On Behalf of Mandated Network Neutrality*, 59 FED. COMM. L.J. 103, 144 (2006) (also observing that peak use periods are the cause of congestion, not heavy data users).

140. *Telex Corp. v. IBM Corp.*, 367 F. Supp. 258, 347 (N.D. Okla. 1973), *rev'd on other grounds*, 510 F.2d 894 (10th Cir. 1975).

141. *Cf. United States v. Microsoft Corp.*, 253 F.3d 34, 91 (D.C. Cir. 2001).

and paid peering agreements which are normally secret, taking much of the uncertainty out of a court's ultimate decision.

The DOJ may be taking the first steps in such an investigation. In June of 2012, a probe of Comcast's data cap policy was underway, according to unnamed sources at the Department.<sup>142</sup> The investigation centers on whether failing to count Xfinity streaming against a bandwidth cap is an unreasonable network management policy, contrary to the 2011 NBCU-Comcast Joint Venture Consent Decree.<sup>143</sup> Such a pro-consumer investigation is laudable, and the DOJ should use it as a stepping stone to launch a broader investigation into the overall anticompetitive implications of a data cap program.

### *B. Net Neutrality: Vague Rules with an Uncertain Effect*

The effect that the FCC's Open Internet rules will have on data cap policies is even less clear than whether those rules will survive judicial scrutiny. Despite occupying 44 pages in very small type in the Federal Register,<sup>144</sup> the Open Internet rules use the terms "usage-based" or "usage limit" only four times.<sup>145</sup> Similarly, although at least 490 law review and journal articles deal with net neutrality, only 32 of those mention either "usage limits" or "metered."<sup>146</sup> Of those, only three articles offer more than the most cursory examination of data caps.<sup>147</sup> The most direct, salient analysis reads: "would a . . . Net neutrality rule prohibit such innovative [metered] pricing schemes from being employed in the first place? The answer remains uncertain."<sup>148</sup>

However, within that uncertainty are two areas of analysis. First, do the net neutrality rules restrict data caps? Second, what effect, if any, might net neutrality rules have on other attempts to regulate data cap practices?

---

142. Thomas Catan & Amy Schatz, *U.S. Probes Cable for Limits on Net Video*, WASH. POST (Jun. 13, 2012), <http://online.wsj.com/article/SB10001424052702303444204577462951166384624.html>.

143. *Id.*

144. Preserving the Open Internet, 76 Fed. Reg. 59,191 (Sept. 23, 2011) (codified at 47 C.F.R. pts. 0, 8).

145. Preserving the Open Internet, *supra* note 63, at paras. 56, 72, 94.

146. Per a search of WestlawNext on Nov. 12, 2011.

147. See Christopher S. Yoo, *Network Neutrality and the Economics of Congestion*, 94 GEO. L.J. 1847, 1884-85 (2006) (noting tiered pricing would require monotiring bandwidth); Havivi, *supra* note 71, at 216-19 (pointing out analogous attempts at setting caps); see generally Adam Thierer, *Are "Dumb Pipe" Mandates Smart Public Policy? Vertical Integration, Net Neutrality and the Network Layers Model*, 3 J. TELECOMM. & HIGH TECH. L. 275 (2005).

148. Thierer, *supra* note 147, at 299. Thierer and I reach opposite conclusions on the normative question of whether or not net neutrality should prohibit data caps; however, we do agree that it is unclear whether they do presently.

# 1. Do Data Caps Block Access? Only if the FCC Wants Them To

The Open Internet rules have three core principles, and the most important as relates to data caps is “no blocking.”<sup>149</sup> “Fixed broadband providers may not block lawful content, applications, services, or non-harmful devices.”<sup>150</sup> Regulators will likely have a difficult time qualifying data caps as “blocking,” but such contortionism remains conceivable.<sup>151</sup>

There are two plausible explanations of how data caps operate as a block. First, with Comcast’s original data caps where users are disconnected after exceeding a certain threshold a certain number of times, data caps literally block access to *all* content. Second, with Rogers-type tiny data caps, users are functionally prohibited from accessing HD content; a two hour movie at 2.3 GB per hour would consume a user’s entire 2 GB monthly bandwidth quota before the movie was halfway over. Even Comcast’s 300 GB data cap effectively prohibits use of Netflix or Hulu as a TV replacement without paying substantial fees.

However, “usage limits” and “usage-based fees” are mentioned only a few times throughout the FCC’s Open Internet rules, suggesting, sometimes strongly, that such restrictions are permissible. In explaining the transparency requirement, one of the Open Internet rules’ key principles, the FCC noted that “Commercial Terms,” including “usage-based fees,” must be disclosed.<sup>152</sup> Two arguments may allow the FCC to regulate data caps notwithstanding the language in the transparency requirement. First, the fact that such limits might exist for some ISPs is not an unequivocal endorsement of all such limits. Second, these rules are meant to clarify the transparency requirements,<sup>153</sup> not what is meant by blocking.<sup>154</sup>

On the same page, the transparency rules also require the disclosure of “usage limits,”<sup>155</sup> with a footnote concluding that “the description of congestion management practices provided by Comcast in the wake of the Comcast-BitTorrent incident likely satisfies the transparency rule with respect to congestion management practices.”<sup>156</sup> While this seems to endorse Comcast’s practices, it could still be argued that it neither endorses all data caps in all cases nor applies outside the context of analyzing an

---

149. See *Open Internet*, FCC, <http://www.fcc.gov/openinternet> (last visited Feb. 17, 2012).

150. Preserving the Open Internet, *supra* note 63, at para. 1.

151. See, e.g., *id.* at paras. 2-3.

152. *Id.* at para. 56.

153. *Id.* at para. 1 (stating that the rules are meant “[t]o provide greater clarity and certainty regarding the continued freedom and openness of the Internet”).

154. “No blocking” is only one of the “three basic rules,” *id.*, intended to preserve “Internet freedom and openness,” which are the overarching goals of the rules. *Id.* (Statement of FCC Chairman Julius Genachowski).

155. *Id.*, at para. 56 n.177.

156. *Id.*, at para. 24 n.64.

ISP's compliance with the transparency provisions of net neutrality. Furthermore, the practice being described, according to Comcast, "has nothing to do with aggregate monthly data usage."<sup>157</sup> Finally, the publication of the net neutrality rules predates Comcast's preferential treatment of Cable TV subscribers who stream Comcast services through their Xbox 360.

One other statement might give the FCC's blessing to data caps:

We are, of course, always concerned about anti-consumer or anticompetitive practices, and we remain so here. However, prohibiting tiered or usage-based pricing and requiring all subscribers to pay the same amount for broadband service, regardless of the performance or usage of the service, would force lighter end users of the network to subsidize heavier end users. It would also foreclose practices that may appropriately align incentives to encourage efficient use of networks. The framework we adopt in this Order does not prevent broadband providers from asking subscribers who use the network less to pay less, and subscribers who use the network more to pay more.<sup>158</sup>

Again, interpreting this as anything other than an FCC endorsement of data caps requires some creative reading. The paragraph above appears in the section defining discrimination, not blocking. Furthermore, it could be read as an endorsement of different speed tiers, not different aggregate usage tiers. Simultaneously, the Comcast model is both anticompetitive and anticonsumer, contrary to the FCC's stated goals.

The net neutrality argument is certainly more convoluted than the antitrust argument, but it also would apply to all high speed ISPs, not just the cable companies that possess monopoly power. Such a nuanced regulatory interpretation is also not unprecedented: the FCC held that cable Internet is neither a cable service, nor a telecommunications service, and that the Supreme Court upheld that painful statutory reading.<sup>159</sup>

## 2. Net Neutrality as a Defense: The FCC Made Me Do It!

Net neutrality may also have an odd side effect. By prohibiting data discrimination, ISPs are unable to target users who engage in heavy use of *transit*, rather than peering, paid peering, or intranetwork connections. For instance, if a residential customer was secretly running a voice over

---

157. *Network Management Policy*, COMCAST, <http://xfinity.comcast.net/terms/network/update/> (last visited Dec. 20, 2012).

158. Preserving the Open Internet, *supra* note 63, at para. 72

159. See *Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 974 (2005).

Internet protocol call center from their house, they might truly represent a high cost, high usage user, whom low usage users are subsidizing. An ISP wanting to avoid such subsidization *and* comply with the net neutrality rules would have to adopt a usage agnostic rule to deal with such eventualities (i.e., data caps). The ISP could then argue to the DOJ that, while it might not adopt such a rule in the free market, the perverted incentives of a post-net neutrality regulated world forced it into such a situation.<sup>160</sup>

The first problem with this scenario is that it is unrealistic; there is no data to suggest that excessive users consume so much transit relative to paid peering that it is more efficient for the ISP to meter usage and terminate those users' accounts rather than to simply accept them as a cost of doing business. Furthermore, such a residential user could likely be terminated for using the connection for business, rather than residential purposes.<sup>161</sup> Lastly, taking such a position would be inconsistent with the position of most ISPs—that they are not bound by the FCC net neutrality rules.<sup>162</sup>

Overall, it is too early to tell what effect, if any, the new net neutrality rules will have on data caps. It is likely they will have no effect, but with substantial regulatory willpower, they could be used to pressure not only cable companies, but all ISPs, into abandoning data caps.

### *C. Individual Agreements: Ending Data Caps One at a Time*

One of the most effective regulatory tools used over the past decade has been the settlement agreement. Even as Comcast was winning a court case to prevent the imposition of Open Internet rules,<sup>163</sup> it agreed to become bound by such rules in order to secure its merger with NBCU.<sup>164</sup> These particular agreements are unlikely to have much impact on data caps because they explicitly sanction such caps. However, they are examples of the gains that can be realized through aggressive regulatory action.

---

160. See generally Yoo, *supra* note 147, at 1907-08 (suggesting, generally, that the free market solves best).

161. See, e.g., *Comcast Acceptable Use Policy for High-Speed Internet*, COMCAST, <http://www.comcast.com/Corporate/Customers/Policies/HighSpeedInternetAUP.html> (last visited Feb. 14, 2011) ("The Service is for personal and non-commercial residential use only and you agree not to use the Service for operation as an Internet service provider or for any business enterprise or purpose (whether or not for profit)").

162. See Nate Anderson, *Verizon Sues to Halt FCC's Net Neutrality Rules*, ARS TECHNICA (Oct. 2, 2011, 5:00 PM), <http://arstechnica.com/tech-policy/news/2011/10/verizon-sues-to-halt-fccs-net-neutrality-rules/>.

163. See *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010).

164. See *United States v. Comcast Corp.*, No. 1:11-CV-00106, 2011 WL 5402137, at \*1 (D.D.C. Sep. 1, 2011); see also *Comcast-NBCU Order*, *supra* note 131. In its form 10-K, Comcast states that it agreed to be bound by the FCC's Open Internet rules, see *Comcast Corp.*, *supra* note 106, at 13.

Admittedly, the language of the Comcast-NBCU Consent Decree that otherwise could be used to prohibit data caps goes on to expressly allow for such caps. Part V(G) of the Consent Decree prohibits Comcast from unreasonably discriminating and requires them to allow subscribers to “typically achieve download speeds of at least 12 megabits per second.”<sup>165</sup> However, the ruling goes on to state that it “does not restrict Comcast’s ability to impose byte caps or consumption-based billing.”<sup>166</sup> Similar provisions exist within the FCC-approved conditions to the merger.<sup>167</sup>

But again, this agreement was finalized before Comcast began offering preferential treatment to Xfinity streamers. Based on such preferential treatment, Public Knowledge filed a petition requesting that the FCC force Comcast to stop discriminating against online video providers.<sup>168</sup> Specifically, Public Knowledge argues that offering streaming cable services while capping competing online video services is counter to the requirement that “[n]either Comcast nor C-NBCU shall engage in unfair methods of competition . . . the purpose or effect of which is to hinder significantly or prevent any MVPD or OVD from providing Video Programming to subscribers or customers.”<sup>169</sup> Public Knowledge concludes: “The Commission should therefore order Comcast to immediately stop exempting only its Xfinity service from the data caps it imposes on its customers’ activity. Going forward, the Commission should prohibit Comcast from using unnecessarily discriminatory data caps.”<sup>170</sup>

Even if the current FCC dispute is unsuccessful in changing Comcast’s data cap policies, the mere existence of the NBCU-Comcast Consent Decree language emphasizes the power such agreements have; when threatened with the delay or destruction of a business opportunity, Comcast will capitulate. This is not an isolated case. When threatened with new legislation that would affect its ability to charge monopoly pricing for high speed Internet, Time Warner Cable quickly abandoned its data cap plans.<sup>171</sup> Similarly, Verizon ultimately capitulated to the FCC’s open device rules in order to gain access to the 700 MHz spectrum.<sup>172</sup> These cases suggest that if regulators make data caps a priority, they can find appropriate carrots or sticks to make such regulation a reality.

---

165. *Comcast Corp.*, 2011 WL 5402137 at \*11.

166. *Id.*

167. See Comcast-NBCU Order, *supra* note 131, at para. 103, §1V(E)(3).

168. See Petition to Enforce Merger Conditions, *supra* note 119, at 13.

169. *Id.* at 9 (internal citations omitted).

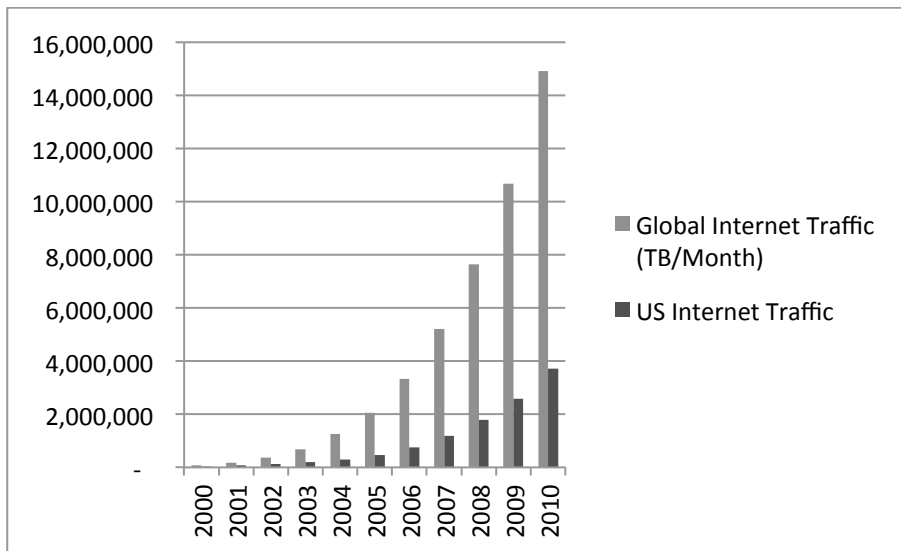
170. *Id.* at 15.

171. See Anderson, *supra* note 77.

172. This happened admittedly without legal action, which was ultimately dropped. See Grant Gross, *CTIA Drops Lawsuit Against FCC’s Open Access Rules*, PC WORLD (Nov. 13, 2008, 2:00 PM), [http://www.pcworld.com/businesscenter/article/153848/ctia\\_drops\\_lawsuit\\_against\\_fccs\\_open\\_access\\_rules.html](http://www.pcworld.com/businesscenter/article/153848/ctia_drops_lawsuit_against_fccs_open_access_rules.html).

#### IV. CONCLUSION: MORE THAN JUST TV – DATA CAPS AND THE INTERNET’S EXPONENTIAL GROWTH

The graph below shows the growth in average monthly data usage over the past decade:



United States and global monthly Internet traffic growth (2000-2010).<sup>173</sup>

Data usage, for both the United States and the rest of the world, has been growing exponentially and is poised to continue doing so. This exponential growth is responsible not only for a new way to watch five hours of TV per day, but also for the phenomenal economic growth the United States experienced since the 1990s, the fundamentally novel ways we communicate and exchange information today, and the continued success of many San Francisco Bay area companies, not the least of which is Netflix.

Should data caps—even ones which today seem large—become the norm in the United States, this growth may falter. Promised advances in video conferencing, telemedicine, and communications technologies, including those not yet invented, may never come to pass, or they may pass by the United States. Already, U.S. broadband speed is, on average, a

---

173. CISCO SYS., CISCO VISUAL NETWORKING INDEX: GLOBAL IP TRAFFIC FORECAST, 2010-2015 (2011) (on file with the author).

quarter of what it is in South Korea.<sup>174</sup> Data caps would only exacerbate this disparity.

Regulators can and should challenge the growing prevalence of data cap policies. They are unnecessary to control costs or congestion, and primarily serve the anticompetitive purpose of preventing cable TV (or MVPD) subscribers from switching to online video services. More fundamentally, regulation of data caps will help ensure that the Internet continues to work as an engine for free-market creative destruction for years to come.

---

174. See John Paczkowski, *The Median U.S. Broadband Speed? South Korea's Divided by Four*, ALL THINGS D (Aug. 26, 2009, 5:41 AM), <http://allthingsd.com/20090826/cwa/>.