STOP MEGA COMCAST

January 27, 2015

EX PARTE PRESENTATION

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Ex Parte Presentation in MB Docket No. 14-57, *Applications of Comcast Corp. and Time Warner Cable Inc. for Consent to Assign or Transfer Control of Licenses and Authorizations*

Dear Ms. Dortch:

Pursuant to Section 1.1206 of the Commission's rules, 47 C.F.R. § 1.1206, the Stop Mega Comcast Coalition submits this letter summarizing a meeting on January 26, 2015 with Philip Verveer, Senior Counselor to Chairman Wheeler; Gigi Sohn, Special Counsel for External Affairs to Chairman Wheeler; Maria Kirby, Legal Advisor, Media, Consumer and Governmental Affairs, and Enforcement to Chairman Wheeler; Hillary Burchuk, Litigation Division, Office of General Counsel; William Rogerson, Economist, Office of Strategic Planning & Policy Analysis (by telephone); and Eric Feigenbaum, Director of Outreach and Strategy, Office of Media Relations. The following members of the Stop Mega Comcast Coalition were present: Kathy Wallman, TheBlaze; Todd O'Boyle, Common Cause; Linda Sherry, Consumer Action; Delara Derakhshani, Consumers Union; Jeff Blum, DISH; Hadass Kogan, DISH; Kevin Erickson, Future of Music Coalition; Micah Caldwell, ITTA; Mike Gravino, LPTV Spectrum Rights Coalition; Tracy Rosenberg, Media Alliance (by telephone); Bob Gnaizda, National Asian American Coalition (by telephone); Josh Stager, Open Technology Institute; Tim Winter, Parents Television Council (by telephone); Glenn Manishin, Sports Fans Coalition; David Goodfriend, WeatherNation TV; Mike Forscey, Writers Guild of America, West; and Allen Grunes, consultant to the Coalition.

During the meeting, members of the Coalition, which include a broad group of consumer advocates, private companies, labor unions, and industry organizations,[1] explained that

[1] The Coalition's 28 members include Common Cause, Consumer Action, Consumer Federation Of America, Consumers Union, DISH Network Corporation, Engine, FairPoint Communications, Future of Music Coalition, Greenlining Institute, Hargray Communications Group, Independent Telephone & Telecommunications Alliance ("ITTA"), LPTV Spectrum Rights Coalition, Media Alliance, National Alliance for Media Arts & Culture, National Consumer Law Center, NTCA-The Rural Broadband Association, Open Media International, Open Technology Institute, New America Foundation, Parents Television Council, Public Knowledge, TheBlaze, The National Asian American Coalition ("NAAC"), The Rural

consumers, competition, and innovation will be severely harmed by the proposed merger of Comcast and Time Warner Cable ("TWC"); that no set of conditions can alleviate those harms; and that the FCC should reject the merger.[2]

In particular, Coalition members explained that a combined Comcast/TWC would have unprecedented power as the gatekeeper to more than half of the high-speed broadband homes in the nation. Among other things, the proposed transaction threatens the following harms across five key market segments, including:

- **Broadband:** Comcast/TWC would control more than 50% of the high-speed broadband market. Those who want their content to flow quickly and freely will have to submit to the combined company's terms, giving Comcast/TWC the power and the incentive to increase their prices at the expense of consumers, content creators and innovation.

- **Programming and Pay TV:** Comcast/TWC would be the nation's most dominant pay TV provider, while also owning NBC-Universal, one of the biggest programmers in the world. Comcast/TWC would have the means and the incentive to advance its own content at the expense of other programmers and to force consumers to pay more for content not controlled by Comcast/TWC. In addition, the concentration of the top major metropolitan areas within a combined Comcast/TWC would pose a significant competitive threat to programmers, competing pay-TV providers, and online video distributors.[3]

- **Connected Consumer Devices:** Comcast's X1 Platform would be the default streaming system for the vast majority of broadband subscribers, affording Comcast/TWC extraordinary power over the content available to broadband consumers and forcing competing devices to submit to the combined company's terms in order to gain entry to the marketplace. This means fewer choices for consumers and less motivation for companies to invest in new and innovative technologies.

- **Local Advertising:** Comcast/TWC would control 71% of the local cable advertising market. Local cable ads are critical for local businesses, particularly small businesses, to reach their customers. Local cable advertising is also a critical component of business for cable companies. Confronted with the combined company's control over 71% of the

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Broadband Alliance ("RBA"), The Sports Fans Coalition, WeatherNation TV, Writers Guild of America, East, Writers Guild of America, West, and Z Living.

[2] *See* Press Release, Stop Mega Comcast Coalition, Stop Mega Comcast Coalition Urges FCC and DOJ to Reject Comcast-Time Warner Cable Merger (Dec. 3, 2014), *available at* http://stopmegacomcast.com/stop-mega-comcast-coalition-urges-fcc-doj-reject-comcast-time-warner-cable-merger/.

[3] *See* DISH Network Corporation, Petition to Deny, MB Docket No. 14-57, pp. 70-71, 80-82; Declaration of Roger Lynch at 18-20; Declaration of Professor Sappington at 18-19 (Aug. 25, 2014).

market, small business marketers and cable companies will have no choice but to pay Comcast/TWC rates, raising small business costs and increasing prices for consumers.

- **Latino and Minorities:** Comcast/TWC would reach more than 91% of Latino households and control programming in 19 of the top 20 Latino media markets. That means virtually the entire Latino community could find itself with far fewer programming choices, lower quality programming and fewer opportunities for Latinos in the creative content industries.

Parties in attendance also reiterated the following concerns about the proposed transaction previously expressed by Coalition members:

TheBlaze explained that a healthy communications landscape is one that supports access to a wide variety of viewpoints and sources of information. The FCC has already determined that Comcast can and does deny consumers access to independent programming in order to favor its own content and affiliated networks. Granting Comcast more gatekeeping power will stifle the free exchange of information and ideas by providing Comcast with greater incentive and ability to block competing channels and opposing viewpoints from access to its customers in order to advantage its own content or its political point of view.

Common Cause explained that the creation of Mega Comcast would be a mega disaster for America, triggering higher costs for customers, greater barriers to entry for independent voices, and fewer choices for Internet users across the country.

Consumer Action explained that the union of the two largest cable-and-broadband companies in the U.S. would result in customer service nightmares and the potential for even higher prices for certain consumers. By Comcast's own admission, its bad reputation among its customers is due to its large size. Applying this logic to the impending merger, Mega Comcast's quality of customer service would continue to plummet, while monthly costs and consumer frustration would spike. This anti-consumer transaction must be blocked.

Consumers Union explained that over 600,000 consumers have filed comments in the docket and are highly skeptical of this merger – and for good reason. Both Comcast and Time Warner Cable are notorious for poor customer service and arbitrary price hikes – issues which are bound to persist and likely only increase, under Mega Comcast's regime. This merger would lead to higher prices, fewer choices and worse service for consumers.

DISH explained that as the gatekeeper to half of all high-speed broadband connections in the United States, Mega Comcast would have the power to limit which, if any, competing over-the-top services its customers can access. The inevitable result of this merger: fewer options at a higher price.

Future of Music Coalition explained that Mega Comcast would be a perfect storm for musicians and the creative community at large. Mega Comcast's domination over internet access, programming and distribution would render artists powerless in negotiations over how their music is accessed and under what terms. Any deal that deliberately disrupts the flow of innovative, affordable content to consumers is an undeniable threat to the public interest.

ITTA explained that this deal would fundamentally alter the communications landscape to the detriment of consumers everywhere. By usurping control of the majority of video programming and distribution across the country, Mega Comcast would undercut existing small and mid-size communications companies, and restrict new competitors from entering the marketplace in the future. Consumers at the mercy of these harsh market conditions could anticipate their options for service providers to dissolve, while prices would continue to climb.

The LPTV Spectrum Rights Coalition explained that both parties involved in this transaction are notorious for discriminating against low power television stations, many of which specialize in local or community-centric content. Post-merger, consumer access to hyper-local and civic programming would undoubtedly suffer, while many small broadcast stations supporting this content would likely be forced to shut down operations. The LPTV Spectrum Rights Coalition distributed the attached document reiterating its concerns.

The National Asian American Coalition explained that more than 130 million minorities in the U.S. already face abundant challenges to accessing affordable, quality Internet and cable services at four times the cost of similar comprehensive packages in France or Korea. Mega Comcast's dominance over broadband would compound these market conditions, further reducing options for minority consumers.

Open Technology Institute at New America Foundation explained that with control of over 50 percent of high-speed broadband connections, a post-merger Comcast would have the ability and the incentive to raise prices, limit access to content, and fundamentally alter how consumers use the Internet.

Parents Television Council explained that consumers already face skyrocketing cable and broadband costs, and Mega Comcast's enormous market power would exacerbate this while causing the prospect of greater consumer choice to die. Plus, the diversity of content and services available to consumers today is bound to suffer under Mega Comcast's control — and this could have drastic consequences for family-friendly TV content. Consumers and families deserve better.

The Sports Fans Coalition explained that sports television programming is a unique aspect of the transaction (consistently found by the FCC to be must-have, marquee content) with already demonstrable consumer harm. The Sports Fans Coalition opposes the merger between Comcast and Time Warner Cable because both companies have a long track record of foreclosure through denying RSN programming to unaffiliated cable systems and refusing carriage of competing sports networks, and that the result of a merger would be to create a two-firm duopoly over Regional Sports Network programming nationwide, with a "vicious cycle" of anticompetitive conduct, including moving more live sports content from broadcast TV to pay cable, hence adversely affecting Latino and low-income consumers. SFC explained that economic research shows that whenever a cable operator is vertically integrated into the RSN market, both prices and vertical foreclosure increase, with the problem becoming worse the firms' cable system holdings grow larger. Time Warner Cable showed its true colors this year, keeping 70% of L.A. Dodgers fans from watching their team during a great season. Comcast shuts out fans in Philadelphia and Portland. Add to that the merged companies' ability to shut out online video sources of sports and the conclusion is clear: this merger would be bad for fans and should be rejected because it does not meet the Commission's public interest standard of enhancing, rather than not merely harming, competition.

WeatherNation TV explained that it is an independent weather service and its biggest competitor is The Weather Company, which is partly owned by Comcast. This provides Comcast with an equity stake in one of the most widely distributed cable channels, The Weather Channel, and the dominant weather data service provider in the U.S., WSI, which most local broadcasters are dependent on today. Left to its own devices, Comcast could use its additional distribution muscle after acquiring Time Warner Cable to further favor its own service, The Weather Channel, and weather data service, WSI, at the expense of us, the competition. In a competitive market, businesses and consumers would have many different options to receive their weather information, pushing everyone in the industry to get the most accurate data and important emergency information out quickly and clearly. Allow one company to dominate weather as a category, as Comcast would post-merger, and you won't have that competition. You won't have the best possible dissemination of critical weather data.

Writers Guild of America, West explained that Comcast's proposed acquisition would give a single company too much power to determine what we as writers create and what viewers watch. The company's layered control of programming, distribution and broadband connections would force content creators to submit to the company's terms, or risk exclusion from the majority of American households. At a time when we are beginning to realize the tremendous potential of the Internet to expand content choices and increase competition, Comcast would have the ability and incentive to undermine all this progress. If this merger is not stopped, the power to control the pipeline would trump the power to create. The result would be less creativity, less innovation and less choice.

Members also discussed the attached papers authored by John Kwoka and Diana Moss, which illustrate why behavioral remedies are not likely to be effective and have failed in previous mergers.

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The proposed merger of Comcast and TWC threatens serious harms to competition and consumers and runs counter to our antitrust and communications laws. No set of conditions can alleviate these harms; therefore, the FCC must reject this merger.

STOP MEGA COMCAST

Respectfully submitted,

/s/

Kathy Wallman, TheBlaze

Todd O'Boyle, Common Cause

Linda Sherry, Consumer Action

Delara Derakhshani, Consumers Union

Jeff Blum, DISH

Hadass Kogan, DISH

Kevin Ericson, Future of Music Coalition

Micah Caldwell, ITTA

Mike Gravino, LPTV Spectrum Rights Coalition

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Allen Grunes, consultant to the Coalition

cc: Philip Verveer
Gigi Sohn
Maria Kirby
Hillary Burchuk
William Rogerson
Eric Feigenbaum

Enclosures

The American Antitrust Institute

Behavioral Merger Remedies:
Evaluation and Implications for Antitrust Enforcement

John E. Kwoka and Diana L. Moss[1]

Executive Summary

The 2011 revision to the ANTITRUST DIVISION POLICY GUIDE TO MERGER REMEDIES (REMEDIES GUIDE) is notable in that it signals a shift in the Department of Justice's (DOJ's) approach to merger remedies. The earlier REMEDIES GUIDE, issued in 2004, emphasized structural remedies such as divestitures as the preferred approach to resolving competitive problems with mergers. In contrast, the 2011 revision is considerably more favorably disposed toward the use of behavioral remedies that proscribe specified anticompetitive behaviors of the merged companies.

The 2011 REMEDIES GUIDE expands the types of behavioral remedies that the DOJ states the agency will consider, providing for relatively more complex, interventionist, and on-going restraints. This stands in contrast to past behavioral remedies that were generally limited in scope and ancillary to other provisions of consent orders. This apparent policy shift is illustrated by the behavioral remedies employed by the DOJ in three recent merger cases – Ticketmaster-Live Nation, Comcast-NBCU, and Google-ITA. These three cases involve the use of multiple behavioral remedies, ranging from access conditions (e.g., licensing and non-discrimination requirements), firewalls, anti-retaliation provisions, to arbitration requirements, and provide for monitoring and compliance enforcement.

The expansive new approach to behavioral remedies raises a number of concerns about their likely operation, effectiveness, and requirements for ongoing government monitoring and compliance enforcement. Many of these issues are similar to problems encountered in traditional industry regulation, ranging from countervailing incentives to implementation costs. Behavioral remedies also pose practical problems for antitrust

[1] John E. Kwoka is the Neal F. Finnegan Professor of Economics, Northeastern University and Diana Moss is Vice President and Director, American Antitrust Institute (AAI). John Kwoka served as consultant to the states in the Ticketmaster-Live Nation matter. Analysis contained herein regarding the case is based on public information and focuses on issues subsequent to that consultancy. Many thanks to Randy Stutz, Special Projects Director, AAI, for the summary of the Google-ITA case, to Bert Foer for helpful review of earlier drafts, and to Ke Li for research support. The AAI is an independent non-profit education, research, and advocacy organization. Its mission is to advance the role of competition in the economy, protect consumers, and sustain the vitality of the antitrust laws. AAI is managed by its Board of Directors, which alone has approved of this White Paper. For more information, see www.antitrustinstitute.org.

enforcement, including tensions created by blending prosecutorial and compliance functions within the Antitrust Division of the DOJ and the difficulties of "testing" their effectiveness to ensure best practices.

How well the packages of behavioral remedies function to restore competition in the markets affected by the three particular mergers examined in this White Paper remains to be seen. Nonetheless, it identifies a number of issues that warrant attention and prompt some concern and based on this early analysis, a number of observations and policy recommendations would seem justified.

I. Introduction

The U.S. antitrust agencies periodically issue revisions of various merger policy guidelines in order to better reflect changes in practice and advances in analytical techniques. Two important revisions have occurred just within the past two years. One is the 2010 revision of the U.S. Department of Justice (DOJ)/Federal Trade Commission (FTC) HORIZONTAL MERGER GUIDELINES (GUIDELINES), the first significant updating since the 1992 GUIDELINES. The 2010 revisions are widely considered a significant improvement over the previous version. The other is the DOJ's 2011 ANTITRUST DIVISION POLICY GUIDE TO MERGER REMEDIES (REMEDIES GUIDE), which revised DOJ's stated approach to remedial actions with respect to mergers raising competitive concerns.[2]

The REMEDIES GUIDE is notable in that it signals a shift in the DOJ's approach to merger remedies. The earlier REMEDIES GUIDE, issued in 2004, emphasized structural remedies such as divestitures as the preferred approach to resolving competitive problems with mergers. In contrast, the 2011 revision is considerably more favorably disposed toward the use of behavioral remedies that proscribe specified anticompetitive behavior of the merged companies. Such remedies are now endorsed more widely for vertical mergers, where current policy is commendably more active than in the past. Moreover, their potential use would not seem to be restricted to vertical cases. This policy revision is reflected in three recent mergers that in quick succession have all been permitted subject to consent orders with substantial behavioral remedies. These are the mergers of

[2] Department of Justice, *Antitrust Division Policy Guide to Merger Remedies* (June 2011), *available at* http://www.justice.gov/atr/public/guidelines/272350.pdf. This supersedes the same document issued in October 2004, *available at* http://www.justice.gov/atr/public/guidelines/205108.pdf.

Ticketmaster-Live Nation, Google-ITA, and Comcast-NBCU. The 2011 REMEDIES GUIDE essentially codifies much of the approach adopted in these merger cases.

This White Paper takes a closer look at these new developments in merger remedies. It begins in Section II by examining the shift toward behavioral remedies in the 2011 REMEDIES GUIDE. It discusses the merits of structural versus behavioral remedies and the basis for past preference for structural remedies in the U.S. and in other major competition jurisdictions. Section III reviews three recent merger cases that were resolved with behavioral remedies. These case studies encapsulate the breadth of the DOJ's revised approach. Section IV analyzes in detail the difficulties associated with behavioral remedies by drawing parallels with well-known challenges faced by economic regulation. Section V concludes with policy recommendations.

II. Structural Versus Behavioral Approaches to Merger Remedies

A. Structural Versus Behavioral Remedies

The literature contains several alternative definitions of structural versus behavioral remedies,[3] but most have at their core the following distinction: a structural remedy to an otherwise anticompetitive merger creates or preserves legally and operationally independent firms so as to maintain competition in the affected market. By contrast, a behavioral remedy permits integration subject to operating rules intended to prevent the merged firm from subsequently undermining market competition.

The quintessential structural remedy is divestiture. If done correctly, divestiture of a division or product or facility can create a new competitor or strengthen an existing

[3] A summary can be found in STEPHEN DAVIES & BRUCE LYONS, MERGERS AND MERGER REMEDIES IN THE EU: ASSESSING THE CONSEQUENCES FOR COMPETITION, at ch.2 & 41-42 (Edward Elgar Publications, 2008).

competitor and thereby replace the competition otherwise lost as a result of the merger. In principle, once created, the divested entity will act as an independent firm, seeking to maximize profit by engaging in the same competitive actions as other firms in the market. Moreover, once such a new firm is created, there typically is no on-going oversight or other action required of the competition authority, and no constraints or reporting requirements on the firm. There are countless examples of divestitures in antitrust cases – either offered up front by the merging parties (so-called "fix it first") or negotiated as part of a settlement process – but most have these stated characteristics.

By contrast, behavioral remedies – sometimes called "conduct" or "non-structural" remedies – allow the parties to integrate fully, but then impose certain operating rules on their business behavior so as to prevent competition from being undermined or compromised. In short, these remedies seek to permit the merger to achieve efficiencies but without the anticompetitive behavior the firm would otherwise engage in. Depending on the perceived threat, these rules can take several different forms. Some, like information firewalls, constrain the internal operation of the firm, while others – illustrated by non-retaliation rules – are directed at the firm's behavior toward external rivals.[4]

The common feature of behavioral remedies is that they are in effect attempts to require a merged firm to operate in a manner inconsistent with its own profit-maximizing incentives. But allowing the merger and then requiring the merged firm to ignore the

[4] Structural and behavioral remedies can also be combined in a "hybrid" approach. It should also be noted that some remedies defy easy classification. For example, while the 2011 Remedies Guide terms licensing of intangible assets (e.g., patent rights) a divestiture remedy, such a provision in the Google-ITA consent is not so labeled.

incentives inherent in its integrated structure is both paradoxical and likely difficult to achieve. Furthermore, the behavior that such remedies seek to prohibit or require is often difficult to fully specify, leading to subsequent enforcement issues. In some cases, the behavior may be so integral to the firm that it may be unrealistic to suppose the firm can avoid it. As a result, behavioral rules usually must be supplemented with close and ongoing oversight of the merged firm's actual conduct, typically relying upon a monitor with authority to require reports and perhaps to intervene in the decision-making of the merged firm.

B. Revised DOJ Remedies Guidelines and Behavioral Approaches

1. Substantive Changes in the DOJ REMEDIES GUIDE

The policy shift in the DOJ's 2011 REMEDIES GUIDE is revealed in several major differences relative to the 2004 REMEDIES GUIDES. First, gone from the new REMEDIES GUIDE is any specific statement of preference for structural remedies and the appropriateness of behavioral relief in only limited circumstances. Replacing that is the statement that: "In certain factual circumstances, structural relief may be the best choice to preserve competition. In a different set of circumstances, behavioral relief may be the best choice."[5] The 2011 REMEDIES GUIDE goes on to state only that structural remedies "often" suffice in horizontal cases, but that in vertical cases conduct remedies "often" address competitive concerns, sometimes in conjunction with structural remedies.[6] In taking this position, it moves away from a strong structural emphasis to a more case-by-case approach involving conduct remedies.

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[5] 2011 REMEDIES GUIDE, *supra* note 2, at 4.

[6] *Id.* at 2.

Second, the 2011 REMEDIES GUIDE contains a separate and expanded section on behavioral remedies and a new section on hybrid remedies. Much of the valuable guidance on structural divestiture passes intact from the 2004 to the 2011 REMEDIES GUIDE. However, the new REMEDIES GUIDE is discernibly more optimistic than its predecessor regarding the role of behavioral remedies. They are declared to be a "valuable tool" in remedying a merger's competitive harm while preserving its potential efficiencies.[7] The behavioral approach is specifically endorsed for vertical mergers and for mergers with both horizontal and vertical components. Altogether missing from the 2011 REMEDIES GUIDE is any mention of four substantial costs associated with behavioral remedies, namely, the direct costs of monitoring, the costs of evasion, the potential to restrain procompetitive behavior, and the difficulty of adaptation to changing market conditions.[8] While these were central to the 2004 REMEDIES GUIDE approach, that discussion is deleted without explanation of the basis for changed thinking.

Third, the 2011 REMEDIES GUIDE expands the types of behavioral remedies that the DOJ states it will consider. In addition to firewalls, transparency provisions, and non-discrimination provisions, the revision also discusses possible use of mandatory licensing, anti-retaliation, prohibitions on certain contracting practices, and arbitration requirements as part of non-discrimination provisions. These go beyond past DOJ statements and practices with respect to merger remedies.

Finally, a section on compliance discusses remedies enforcement. It observes that enforcement is dependent on the allocation of internal Antitrust Division resources to the

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[7] *Id.* at 6-7.

[8] This view was endorsed by the chief economist at DOJ at the time. *See* David S. Sibley & Ken Heyer, *Selected Economic Analysis at the Antitrust Division: The Year in Review*, 23 REV. IND. ORGAN. 95 (2003).

development of best practices and *ex post* reviews of remedies effectiveness. It does not address the question of where such resources will be found.

2. Analysis of the DOJ's New Approach to Behavioral Remedies

The new approach to remedies stands in contrast not only with structural remedies – which require no subsequent oversight – but to some degree also with instances where behavior-oriented remedies have been used in the past. Past behavioral remedies were generally restricted to vertical mergers, were limited in scope, and were ancillary to other provisions of the consent orders. Newer behavioral remedies are not so limited in their application, and involve relatively more complex, interventionist, on-going restraints.

More specifically, these new behavioral remedies differ in several respects. They are different in that they stand at the core of merger resolution, so the effectiveness of the settlement rises or falls with their effectiveness. They are different in that they are being used not simply in network or infrastructure industries, as has sometimes been the case before, but in more traditional horizontal mergers.[9] They are different in that they intervene more deeply and broadly into the operations of the merged firms, seeking to blunt anticompetitive incentives at a more fundamental level. And they are different since collectively they require novel forms of oversight and expanded resource commitment by the DOJ.

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[9] Analysis of European mergers shows that there may be a preference for behavioral remedies in network and infrastructure industries, with access remedies common in information and telecommunications. *See* Thomas Hoehn, *Structure Versus Conduct – a Comparison of the National Merger Remedies Practice in Seven European Countries*, 17 INT. J. ECON. BUS. 9 (2010). The DOJ's consent order in the case of George's acquisition of Tyson's chicken processing complex provides a recent example of a behavioral remedy in a horizontal merger. See United States v. George's Foods, LLC., 76 Fed. Reg. 38,426 (DOJ June 30, 2011) (proposed final judgment).

These differences raise a number of questions about the design, operation, and efficacy of the new behavioral remedies. Interestingly, for a trenchant critique, one need look no farther than the first (2004) DOJ REMEDIES GUIDE itself, which emphasized a structural approach. That document stated that a behavioral remedy "typically is more difficult to craft, more cumbersome and costly to administer, and easier than a structural remedy to circumvent."[10] While the 2004 GUIDE acknowledged that behavioral remedies could be appropriate in "limited circumstances," it noted that firewalls, fair-dealing provisions, and transparency provisions all pose "substantial policy and practical concerns."[11] It specifically pointed out that firewalls require considerable time and effort to monitor and enforce, fair dealing provisions have potential for "harm as well as good," and transparency provisions run the risk of being circumvented by the merging parties and require the authority and courts to expend resources on monitoring and enforcement.[12]

As noted above, the 2011REMEDIES GUIDE looks past these concerns. In doing so, however, it does not offer support from experience or empirical evidence or other sources for a shift in policy. Rather, the case for such remedies is largely a series of declarative statements concerning their possible usefulness, without addressing critiques – including that in the earlier REMEDIES GUIDE – of this approach.

This is not to say that behavioral remedies have no place in merger control nor that structural remedies are without flaw. Behavioral remedies have on occasion been

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[10] 2004 REMEDIES GUIDE, *supra* note 2, at 7-8.

[11] *Id.* at 22.

[12] *Id.* at 24.

employed in unusual horizontal cases.[13] As noted earlier, they may have a role to play in mergers involving network and infrastructure industries. And they have been utilized in consent orders in vertical mergers where – as both the 2004 and 2011 REMEDIES GUIDES suggest – there are specific efficiencies that can be preserved while addressing competitive harms from a merger.[14] Indeed, where the alternative is no enforcement action whatsoever against competitively problematic vertical mergers, the use of behavioral remedies may be viewed as a worthwhile policy effort to impose at least some measure of restraint on the merged firms.[15] But the 2004 REMEDIES GUIDE cautioned that their limitations would make the use of stand-alone behavioral relief to resolve competitive concerns rare. Recent experience raises the question as to whether that admonition remains valid.

Nor should it be presumed that structural remedies are perfect. They clearly have limitations, and their track record is not unblemished.[16] Their limitations include: information asymmetries between the antitrust authority, merging parties, and potential

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[13] For example, in the settlement of the investigation of the GM joint venture with Toyota by the FTC in 1982, the agency expressed concern about the possibility of exchange of information on a number of topics judged not central to the joint venture. The consent order explicitly prohibited disclosure of a list of topics, leaving enforcement, however, to the parties themselves. *See* John K. Kwoka, *International Joint Venture: General Motors and Toyota (1983), in* THE ANTITRUST REVOLUTION 46 (John E. Kwoka & Lawrence J. White eds., 2nd ed. 1994).

[14] *See, e.g.*, Gerald F. Faulhaber, *Access and Network Effects in the "New Economy": AOL-Time Warner (2000), in* THE ANTITRUST REVOLUTION 453 (John E. Kwoka & Lawrence J. White eds., 4th ed. 2004). For further detail, *see, e.g.*, James Langenfeld, *Non-Horizontal Merger Guidelines in the United States and the European Commission: Time for the United States to Catch Up?*" 16 GEO. MASON L. REV. 851 (2009) and Thomas C. Wilcox, *Behavioral Remedies in a Post- Chicago World: It's Time to Revise the Vertical Merger Guidelines*, 40 ANTITRUST BULL. 227 (1995).

[15] Vertical merger enforcement overall was relatively relaxed in prior administrations, so that current efforts to intervene at all deserve praise.

[16] For a good discussion of how remedies policy can be improved, *see, e.g.*, Thomas J. Horton, *Fixing Merger Litigation "Fixes": Reforming the Litigation of Proposed Merger Remedies Under Section 7 of the Clayton Act*, 55 S.D. L. REV. 165 (2010).

buyers; incentives for the merging parties to dispose of assets so as to not fully restore competition; market structure post-remedy; and the conduciveness of the market to collusion following an asset sale.[17] The track record of structural remedies in the U.S. has been examined by the FTC in a study that found only a minority of remedies were successful in fully restoring the competition lost by a merger.[18] Importantly, however, that study linked such failures to the improper framing of structural remedies and offered a number of recommendations for improvements in policy. Those recommendations have been implemented and have improved subsequent policy with respect to merger remedies.

C. Preference for Structural Remedies in the U.S. and Other Major Jurisdictions

As noted, the 2004 REMEDIES GUIDE expressed a clear preference for structural remedies, citing "speed, certainty, cost, and efficacy" as key factors by which the potential effectiveness of a remedy should be measured.[19] By way of explanation, the 2004 REMEDIES GUIDE stated that structural remedies were preferred to behavioral remedies because:

> … they are relatively clean and certain, and generally avoid costly

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[17] For a summary of the relevant literature, *see, e.g.*, Christian Steiner, Kai Huschelrath, & Jurgen Weigand, *Merger Remedies Involving Restructuring Costs in a Cournot Framework*, 38 EMPIRICA 417, 419-20 (2011); Massimo Motta, Michele Polo, & Helder Vasconcelos, *Merger Remedies in the European Union: An Overview*, 52 ANTITRUST BULL. 603 (2007); Stephen Davies & Matthew Olczak, *Assessing the Efficacy of Structural Merger Remedies: Choosing Between Theories of Harm?* 37 REV. IND. ORGAN. 83 (2010).

[18] *See* Federal Trade Commission, *A Study of the Commission's Divestiture Process* (1999), *available at* http://www.ftc.gov/os/1999/08/divestiture.pdf. Among the few empirical analyses of remedies are Tomaso Duso, Klaus Gugler, & Burcin Yurtoglu, *How Effective Is European Merger Control?* 55 EUR. ECON. REV. 980 (2011), and John Kwoka & Daniel Greenfield, *Does Merger Control Work? A Retrospective on Enforcement Policy, Remedies, and Outcomes* (forthcoming 2011). Both of these studies conclude that structural and behavioral remedies are at best only partially effective in constraining firms that have been allowed to merge.

[19] 2004 REMEDIES GUIDE, *supra* note 2, at 7-8.

> government entanglement in the market. A carefully crafted divestiture decree is "simple, relatively easy to administer, and sure" to preserve competition.[20]

This preference for structural remedies was illustrated in countless merger cases both before and after issuance of the 2004 REMEDIES GUIDE.

In this approach, U.S. policy was consistent with the enforcement posture in Canada, the European Union, United Kingdom, and Canada. In 2001, the European Commission stated:

> …Commitments that are structural in nature, such as the commitment to sell a subsidiary, are, as a rule, preferable from the point of view of the Regulation's objective, inasmuch as such a commitment prevents the creation or strengthening of a dominant position previously identified by the Commission and does not, moreover, require medium or long-term monitoring measures.[21]

The UK Competition Commission expressed a similar preference in 2008 in this way:

> In merger inquiries, the CC will generally prefer structural remedies, such as divestiture or prohibition, rather than behavioral remedies because: *(a)* structural remedies are likely to deal with an SLC [substantial lessening of competition] and its resulting adverse effects directly and comprehensively at source by restoring rivalry; *(b)* behavioral remedies may not have an effective impact on the SLC and its resulting adverse effects, and may create significant costly distortions in market outcomes; and *(c)* structural remedies do not normally require monitoring and enforcement once implemented.[22]

Finally, the Canadian Competition Bureau made a similar statement in 2006:

> Competition authorities and courts generally prefer structural remedies to behavioral remedies because the terms of such remedies are more clear

[20] *Id.* at 8.

[21] Notice on Remedies Acceptable Under Council Regulation No. 4064/89 and Under Commission Regulation No. 447/98, 2001 O.J. (C 68) 3, 4 (EC), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2001:068:0003:0011:EN:PDF.

[22] Competition Commission, *Merger Remedies: Competition Commission Guidelines*, at 14-15 (Nov. 2008) (U.K.), *available at* http://www.competition-commission.org.uk/rep_pub/rules_and_guide/pdf/CC8.pdf.

and certain, less costly to administer, and readily enforceable.[23]

The Canadian policy bulletin goes even further, stating that if a behavioral remedy required any monitoring, it would not be considered on a standalone basis.[24]

These policies have undergone review and been affirmed in several jurisdictions. In the U.S., the FTC's evaluation of divestiture remedies has already been noted. Similar issues have been recognized and studied by antitrust authorities in other countries, including in the 2005 report issued by the Directorate-General Competition of the European Commission and a 2011 Canadian Competition Bureau study.[25] Such studies, as well as cumulative experience, have fostered considerable learning and improvements in a structural approach to consent orders. Even in light of their limitations, the European, U.S., and Canadian studies generally concluded that structural remedies have been largely effective – and superior to alternatives – in accomplishing their stated goal.

In sum, it is clear that structural remedies have been the preferred method of resolving concerns with a proposed merger. Limitations with structural remedies do exist, but these have been identified and at least to some degree addressed. As discussed in Section IV, it is less clear that the significant disadvantages of behavioral remedies can similarly be resolved.

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[23] Competition Bureau, *Information Bulletin on Merger Remedies in Canada*, at 6 (Sept. 22, 2006) (Can.), *available at* http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/Mergers_Remedies_PDF_EN1.pdf/$FILE/Mergers_Remedies_PDF_EN1.pdf.

[24] Competition Bureau, *Competition Bureau Merger Remedies Study*, at 13 (Aug. 11, 2011) (Can.), *available at* http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/cb-merger-remedy-study-summary-e.pdf/$FILE/cb-merger-remedy-study-summary-e.pdf.

[25] *See* Competition Bureau Canada, *supra* note 24; and Directorate General for Competition, *Merger Remedy Study* (2005) (E.C.), *available at* http://ec.europa.eu/competition/mergers/legislation/remedies_study.pdf. *See also* Marleen van Kerckhove, *The EU Remedies Study: Towards Transatlantic Convergence in Merger Remedies?* 21 ANTITRUST 66, 66-67 (2006-2007).

III. Recent Case Studies of Behavioral Remedies

The more favorable view of behavioral remedies in the 2011 REMEDIES GUIDES is not simply a statement of policy. Rather, it has already been implemented in three merger cases that were decided in quick succession by the DOJ. These three cases are Ticketmaster-Line Nation, Comcast-NBCU, and Google-ITA. The intended scope and the practical difficulties associated with behavioral remedies are clearly illustrated by these cases.

A. Ticketmaster-Live Nation

In early 2009, Ticketmaster proposed to acquire Live Nation in an all-stock transaction worth an estimated $2.5 billion.[26] Ticketmaster has long been known as the leading company in artist management and dominant seller of tickets to live music events across the country, with contracts for more than 80 percent of large venues in 2008. At the same time, Live Nation had been the leading concert promoter, handling one-third of major concert events, was the second leading owner-operator of concert venues in the country, and also provided ticketing services. The merger was thus a match of complementary jigsaw pieces, creating a comprehensively integrated and dominant company in the live music business. The DOJ's investigation of the proposed merger was joined by 17 states and coordinated with the Canadian Competition Bureau. The UK Competition Commission investigated the transaction separately.

The threshold competitive issue concerned the effect of combining Ticketmaster's dominant position in primary ticketing services with Live Nation's significant upstart competitive service. The proposed merger would therefore eliminate the only sizeable

[26] *Live Nation, Ticketmaster Agree to Merge*, USATODAY, Feb. 10, 2009, http://www.usatoday.com/money/media/2009-02-10-live-nation-merge-ticketmaster_N.htm.

horizontal competitor (or potential competitor) to Ticketmaster's dominant position. The potential adverse effects would not be remedied by entry, as DOJ noted several significant impediments. Paramount among these was the fact that major venues were reluctant to contract for ticketing services with providers who might not be able to handle the demands of major events. The transaction clearly would also increase the degree of vertical control. No rival at any stage would be able to avoid transacting with a merged Ticketmaster-Live Nation for necessary related services, and that necessity would create considerable potential for several types of mischief toward rivals and harm to consumers.

The first was the possibility that Live Nation would use competitively sensitive information about the artists, venues, and fans, to the competitive disadvantage of promoters that placed artists at venues serviced by Ticketmaster. A second concern was the possibility that the merged firm's artist management arm "Front Line" might steer artists to its own promotion operation, or that venues that did not sign Front Line talent might find their access to other concert talent restricted. The third centered on the possibility that independent rivals might find that if they became too aggressive in competing with the merged entity, Ticketmaster-Live Nation could make it difficult for them to secure artists or concerts or venues.

Although the parties claimed significant cost savings from vertical integration, as well as revenue synergies from being able to market more effectively to fans, the DOJ viewed these claims skeptically. It noted that each company already was significantly integrated, and that absent the merger, "venues and concertgoers would have continued to enjoy the benefits of competition between two vertically integrated competitors."[27]

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[27] United States v. Ticketmaster Entm't, Inc., 75 Fed. Reg. 6,721, 6,724 (DOJ Feb. 10, 2010) (competitive impact statement). *See also* James D. Hurwitz, *Ticketmaster-Live Nation: An AAI White Paper* (Am.

Despite these concerns, the DOJ approved the merger, subject to conditions directed at both the horizontal and vertical issues, effective for 10 years. To replace the lost horizontal competition, DOJ required the licensing of the basic ticketing platform (Host) to AEG – the second leading concert promoter and operator of a number of major venues – in the belief that AEG would have strong incentives to utilize Host both to do its own ticketing and to compete for new ticketing business. The consent order also required the divesture of Paciolan, the venue-based ticketing division, to Comcast-Spectacor, a small and primarily regional ticketing service.[28]

To address vertical concerns, DOJ prohibited the merged firm from several specific actions: (1) retaliation against venue owners who contracted for primary ticketing services with a rival; (2) any requirement that a venue use its primary ticketing services when that venue wanted only to obtain concerts promoted by the merged firm; (3) any requirement that venues take the merged firm's concerts as a condition for obtaining ticketing services; and (4) using ticketing data in their non-ticketing businesses.

B. Comcast-NBCU

In late 2009, Comcast Corporation (Comcast) and General Electric (GE), parent of NBCU Universal (NBCU), agreed to pool assets in a joint venture (JV) valued at about

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Antitrust Inst., April 28, 2009), *available at* http://www.antitrustinstitute.org/files/TICKETMASTER%20Revised.4.28.09_043020092221.pdf.

[28] United States v. Ticketmaster Entm't, Inc., 75 Fed. Reg. 6,715, 6,717 (DOJ Feb. 10, 2010) (proposed final judgment). In actuality, AEG has been slow to undertake ticketing, and ironically has bypassed Host in favor of the start-up Outbox in developing ticketing services. Mitchell Peters, *AEG Launches Axs Ticketing Platform To Rival Ticketmaster*, BILLBOARD.BIZ, Aug. 22, 2011, http://www.billboard.biz/bbbiz/industry/touring/aeg-launches-axs-ticketing-platform-to-rival-1005324562.story.

$30 billion.[29] The transaction was reviewed by the DOJ and Federal Communications Commission (FCC). In their public statement to the FCC, the parties explained that Comcast would contribute its cable and regional sports networks and digital media properties to the JV and NBCU would contribute its cable networks, filmed and televised entertainment, and theme parks. Comcast's cable systems and internet sites for aggregating and marketing video programming content (Fancast and Hulu), however, would *not* be contributed to the JV.[30] The DOJ and FCC coordinated their merger investigations and remedies. The DOJ cast it as a vertical combination that would allow the largest cable multichannel video programming distributor (MVPD) and high-speed internet (HSI) provider in the U.S. to control the programming of one of the most important producers of video content – one that had actively supported online video distribution (OVD) development.

The Complaint concluded that both OVDs and MVPDs were in the relevant product market for video programming distribution (VPD).[31] It noted that Comcast considered the emergence of OVDs a significant competitive threat and had not only improved existing services but also developed new, innovative services in response. Moreover, NBCU's programming was a "potent tool" that if controlled by Comcast could

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[29] Comcast, *Comcast and GE to Create Leading Entertainment Company*, Dec. 3, 2009, http://files.shareholder.com/downloads/CMCSA/928665591x0x336642/8627242a-6cc5-4885-8261-c139a0db6352/CMCSA_News_2009_12_3_General_Releases.pdf.

[30] *In the Matter of Applications of Comcast Corp., Gen. Elec. Co. and NBC Universal, Inc. for Consent to the Transfer of Controls of Licenses*, Applications and Public Interest Statement, MB Docket No. 10-56 (FCC May 4, 2010), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7020394237. *See also In the Matter of Applications of Comcast Corp., Gen. Elec. Co. and NBC Universal, Inc. for Consent to Assign Licenses or Transfer Control of Licensees*, Memorandum Opinion and Order, MB Docket No. 10-56, FCC 11-4 (Jan. 20, 2011).

[31] OVD included professional, full-length streamed or downloaded programming. MVPDs included cable, cable overbuilders, telcos, and digital broadcast satellite providers. United States v. Comcast Corp., 76 Fed. Reg. 5,440, 5,443 (DOJ Jan. 31, 2011) (compl.).

be used to disadvantage VPD rivals.[32] The DOJ's theory of competitive harm was therefore that Comcast could disadvantage its MVPD rivals and curb nascent competition from OVDs by cutting off or raising the costs of important NBCU content, thus reducing the competitive pressure on Comcast to innovate.[33] Moreover, high barriers to entry in MVPD made OVDs the most likely candidate for additional competition in Comcast's cable franchise areas. Finally, the complaint noted that the proposed JV would not produce efficiencies sufficient to reverse the competitive harm of the proposed JV.

Despite these concerns, the DOJ reached a settlement allowing the merger to proceed, subject to certain behavioral remedies that would be in effect for seven years. The most important of the remedies outlined conduct that was required, prohibited, or permitted. The affirmative conduct requirements created a non-discrimination regime, including the required provision of "economically equivalent" and "comparable" video programming to OVDs.[34] The consent decree attempted to define and set parameters for non-discrimination conditions. For example, economic equivalence was defined as the prices, terms, and conditions that "in the aggregate, reasonably approximate" those on which the JV provided programming to an MVPD. Comparability was defined as

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[32] *Id.* at 5,440.

[33] *Id.* at 5,440 & 5,445. In its comments to the FCC, the AAI offered that additional perspective that with control over a larger cache of valuable programming *and* two major distribution channels (cable television and HSI), Comcast-NBCU could strategically control how the two competing platforms developed. *In the Matter of Applications of Comcast Corp., Gen. Elec. Co. and NBC Universal, Inc. for Consent to the Transfer of Controls of Licenses*, Comments of the American Antitrust Institute, MB Docket No. 10-56 (FCC June 21, 2010), *available at* http://www.antitrustinstitute.org/sites/default/files/AAI_Comcast_NBCU%20Comments_2_070220101958.pdf.

[34] United States v. Comcast Corp., 76 Fed. Reg. 5,459, 5,461-64 (§§ IV-VI) (DOJ Jan. 31, 2011) (proposed final judgment).

"reasonably similar in kind and amount, considering the volume and its value" to that which an OVD received from a peer.[35]

The provisions included a special non-discrimination provision for Hulu (in which NBCU held a 32 percent ownership share) consisting of delegation of the JV's voting rights and a firewall to prevent the transmission of competitively sensitive information from Hulu to the JV.[36] Another condition prohibited discriminatory or retaliatory behavior and practices involving Comcast's internet facilities. Yet other conditions covered arbitration rights and conditions for OVDs and compliance enforcement. In an unusual development, the presiding judge delayed approval of the Proposed Final Judgment (PFJ) under the American Antitrust Procedures and Penalties Act due to concerns over a non-appealable arbitration process for OVDs and the enforceability of the PFJ.[37]

C. **Google-ITA**

In mid-2010, Google proposed to acquire ITA Software, Inc. (ITA) for $700 million. ITA licensed a leading software product that allowed travel websites to furnish consumers with complex and customized flight search functionality. Prior to the acquisition, ITA had licensed its "QPX" Pricing and Shopping (P&S) system both to airlines and leading online travel intermediaries (OTIs), which included online travel agents (OTAs) such as Orbitz and Expedia, and meta-search travel sites (Metas) like

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[35] *Id.* at 5,461 (§ IV(A) & § IV(B)).

[36] Programming provided by the JV to Hulu was to be comparable in terms of "type, quantity, ratings, and quality" and provided on "substantially the same terms and conditions as were in place on January 1, 2011." *Id.* at 5,462 § IV(G).

[37] To resolve these concerns, the judge ordered that the parties create and maintain a report for a period of two years, detailing the various aspects of arbitration requests under the FCC and DOJ processes. United States v. Comcast Corp., No. 1:11-CV-00106, at 5 & 7-8 (D.D.C. Sept. 1, 2011) (memorandum order).

Kayak and Bing Travel. The transaction was difficult to characterize in that the merging parties did not directly compete or even fit together vertically in an existing supply chain. Moreover, the risk of anticompetitive effects was strongest in a market – flight search services – that neither party had entered pre-merger or would necessarily enter post-merger. But Google had both the ability and the intent to develop a comparative flight search services product incorporating QPX technology, and by doing so it would place itself in direct competition with customers of ITA.[38]

In its Complaint, the DOJ identified two relevant product markets – a P&S system market and a comparative flight search market – each of which was nationwide in geographic scope. The comparative flight search market included both OTAs and Metas, but excluded airline sites, which are not good substitutes for OTIs. The DOJ emphasized that QPX was a critical flight search tool for which OTIs currently had no adequate alternatives.[39] The agency identified a post-merger incentive for Google to foreclose or disadvantage rival OTIs' access to QPX, the concomitant risk of reduced innovation among travel websites, and the potential to unfairly raise rivals' costs and harm consumer choice.[40] The DOJ characterized entry barriers into the P&S system market as "extremely high," supported by the failure of two start-up firms to gain any meaningful OTI market

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[38] *See* Dennis Schaal, *Kayak to Google: Bring It On*, TNOOZ , July 21, 2011, http://www.tnooz.com/2011/07/21/news/kayak-to-google-bring-it-on/.

[39] United States v. Google, Inc., 76 Fed. Reg. 21,017, 21,017 (DOJ April 14, 2011) (compl.).

[40] In a white paper, the AAI elaborated on or added to the DOJ's concerns, citing the possibility for the transaction to raise rivals costs, raise barriers to entry, or eliminate potential competition in both the comparative flight search services and P&S markets where Global Distribution Systems (GDSs) and others were attempting to compete with QPX in P&S markets. See Randy Stutz, *An Examination of the Antitrust Issues Posed by Google's Acquisition of ITA* 18, (Am. Antitrust Inst., White Paper, Feb. 18 2011), *available at* http://www.antitrustinstitute.org/sites/default/files/Google-ITA%20AAI%20White%20Paper2.18.11.pdf.

share and the time required for Google itself to develop its own P&S system.[41] Moreover, the DOJ argued that the transaction would raise entry barriers in the comparative flight search market by placing QPX out of the reach of potential entrants.[42]

The remedy reflected in the consent order consisted entirely of behavioral relief, to be effective for five years. It featured a mandatory licensing component, a quality-of-terms component, maintenance and R&D commitments, a dispute resolution mechanism, a series of explicit behavioral prohibitions, a set of affirmative behavioral obligations, monitoring and compliance provisions (including arbitration), and modifiable firewall protections to address the possible exchange of competitive sensitive information regarding OTIs.

From an upstream perspective, the settlement obligated Google to continue licensing both ITA's existing QPX product and its future "InstaSearch" product to OTIs on fair, reasonable and non-discriminatory price and non-price terms.[43] From a downstream perspective, the decree prohibited Google from entering agreements that would restrict the rights of airlines to share certain data with parties other than Google, obliged Google to include certain airline data in the P&S system results generated for all OTIs, and prohibited Google from tying the sale of ITA products and services to the purchase of other Google products and services. The consent order also contained the requirement that Google create a website where OTIs could submit complaints

[41] *Supra* note 39, at 21,020.

[42] *Id.*

[43] United States v. Google, Inc., 76 Fed. Reg. 21,026, 21,028-29 (DOJ April 14, 2011) (proposed final judgment).

concerning Google's compliance with the decree. In September 2011, Google launched its ITA-powered flight search product.[44]

IV. Evaluation and Implications of Behavioral Remedies

The new behavioral remedies raise a number of practical problems. Here those problems are discussed in detail, by drawing an analogy between behavioral remedies and traditional regulation. This is followed by a discussion of enforcement concerns.

A. Parallels Between Economic Regulation and Behavioral Remedies

The characteristics of the new behavioral remedies – their scope, their intrusiveness, the need for on-going oversight – raise a number of significant concerns about their likely operation and effectiveness. Significantly, many of these concerns are similar to those raised by traditional industry regulation. Traditional industry regulation is rooted in the belief that the conduct of a profit-maximizing firm with market power can be effectively constrained by the imposition of operating rules combined with administrative oversight. Behavioral remedies in an antitrust context have similar presumptions, objectives, and methods. Indeed, the 2004 REMEDIES GUIDE stated succinctly that a conduct remedy "would, in effect, manage or *regulate* the merged firm's postmerger business conduct [emphasis added]."[45]

Much like traditional economic regulation, the ideal behavioral remedy literally prevents the firm from maximizing profit by modifying its incentives toward conduct that is socially more efficient and beneficial. Much like traditional regulation, however, prohibiting certain actions by the firm does not negate its incentive to pursue profit, nor

[44] Kourosh Gharachorloo, *An Early Look at Our Flight Search Feature*, INSIDE SEARCH: THE OFFICIAL GOOGLE SEARCH BLOG, (Sept. 13, 2011), http://insidesearch.blogspot.com/2011/09/early-look-at-our-flight-search-feature.html.

[45] 2004 REMEDIES GUIDE, *supra* note 2, at 7.

its interest in circumventing the prohibition. For these reasons, just as does regulation, behavioral remedies require ongoing oversight, monitoring, and compliance enforcement on the part of the government and a parallel compliance organization within the merged company. Both may involve nontrivial costs.

What is striking about this analogy is that traditional regulation has come to be widely known for various inherent limitations, administrative costs, and unintended effects. Indeed, much of the modern economic theory of regulation examines the forces and conditions that handicap regulatory authorities and undermine the effectiveness of regulatory policy. And a great many economic studies have demonstrated the practical problems inherent in any effort to constrain normal profit-maximizing behavior by use of rules and oversight. Considerable empirical evidence establishes a very mixed record for modifying the behavior of regulated firms in many industries, and the frequent distortionary effects of regulatory constraints.[46] These concerns would seem to make regulation-like remedies a questionable model for effective merger control.

Next we examine some specific difficulties faced by the new behavioral remedies that echo those of traditional regulation.

1. Asymmetry of Information

A behavioral consent decree would strive to disallow strategic decisions designed to disadvantage rivals, but permit legitimate business decisions of the merged firm. For example, the prohibitions on retaliation against competitors such as those in the

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[46] For cautionary views about economic regulation, *see, e.g.,* Paul Joskow & Nancy Rose, *"The Effects of Economic Regulation,"* in HANDBOOK OF INDUSTRIAL ORGANIZATION 1449 (Richard Schmalensee & Robert D. Willig eds., 1989) and KIP VISCUSI, JOSEPH HARRINGTON & JOHN VERNON, ECONOMICS OF REGULATION AND ANTITRUST (2005).

Ticketmaster-Live Nation and Comcast-NBCU consent orders may seem straightforward, but in actual practice, disentangling the firm's motives for a specific action in order to determine whether it is properly characterized as "retaliatory" is not straightforward.[47] While sometimes an action may only have one explanation, often there are multiple possibilities. The antitrust agency or its monitor does not sit at the meetings where such decisions are made. Notes and documents are not always reliable guides to motives. The agency is at an obvious and inherent informational disadvantage relative to the firm in making that determination, leading to some deference to the firm's explanation for its behavior. Mere prohibitions on retaliation, in short, may provide entirely inadequate protection to rivals.

This informational asymmetry is analogous to that in the context of traditional regulation. There a key asymmetry involves the firm's costs, which the company understands far better that the regulator, but which the regulator needs to ascertain in order to establish price and allowed profit. A further asymmetry arises in making judgments about the motivation for certain actions by the company. In electricity markets, for example, strategic withholding of supply in order to drive up price in periods of scarcity is formally prohibited in most organized markets, but what constitutes strategic withholding versus supply reductions for ordinary business reasons is often

[47] In Ticketmaster-Live Nation, for example, retaliation is defined as "refusing to provide live entertainment events, or providing live entertainment events to a venue owner on less favorable terms, for the purpose of punishing or disciplining a venue owner because the venue owner has contracted for or is contemplating contracting with a company other than defendant for primary ticketing services. The term 'retaliate' does not mean pursuing a more advantageous deal with a competing venue owner." It takes little creativity to envision the various ways in which a particular action might be interpreted differently under this statement. United States v. Ticketmaster Entm't, Inc., 75 Fed. Reg. 6,715, 6,716 (DOJ Feb. 10, 2010) (final proposed judgment)..

beyond an outsider's (i.e., regulator's) ability to distinguish. That leaves a considerable opportunity for the utility to manipulate the system.[48]

2. Inherently Unspecifiable Aspects of the Order

Consent orders prescribe or proscribe behavior in the face of possible complexity of the product, the transaction, the relationship to rivals, and uncertainty about the future. Each of these dimensions adds to the difficulty of fully specifying the conduct in question, and consent orders become complex insofar as they attempt to set forth as many dimensions and contingencies as possible. Case studies such as Google-ITA highlight the complexities associated with such agreements, including the many exceptions and provisos whose meanings and effects are not easily ascertainable. It therefore seems likely that enforcers, as basically outsiders, will not be able to successfully specify all aspects of the conduct in question. Moreover, they will not be able to foresee future developments that may affect the settlement provisions. While the use of monitors might be helpful in that they permit real-time judgments about these matters, that process too is cumbersome and uncertain in its effectiveness. All of these factors increase the likelihood that enforcers will miss important nuances and that the consent order will bind less tightly than intended.

Difficulty in fully specifying the consent order is analogous to another information problem in traditional regulation – the difficulty faced by the regulator in fully specifying the product or service to be performed. Thus, while "price" may be specifiable, "quality" is less so, with the result that the contract with respect to quality is

[48] For more discussion of the difficulties of discerning motivation, *see* Frank A. Wolak, *Lessons from the California Electricity Crisis* (Ctr. for the Study of Energy Mkts., Univ. of Cal. Energy Inst., Working Paper No. 110, 2003).

“incomplete” and may not be fulfilled As shown by price caps in telecom and electricity, even if the regulated firm sets prices as intended, quality may decline since that raises profit. But quality is less easily identifiable to the regulator.[49] The parallels to the antitrust context are clear. The 2011 REMEDIES GUIDE recognizes the problem in stating: “Remedial provisions that are vague or that can be construed when enforced in such a manner as to fall short of their intended purposes can render useless the enforcement effort.”[50] But calls for effective provisions cannot escape the fact that some issues simply cannot be fully specified, regardless of the agency’s effort, thus rendering such orders potentially “useless.”

3. Countervailing Incentives

Consent orders can require or prohibit specific behavior, but they cannot abolish the merged firm’s incentive to maximize profit, especially when some of the proscribed behavior would seem perfectly normal. Thus, the firm subject to such an order will persistently confront opportunities to use information, develop business practices, or interact with competitors in ways that would increase its profits but that are prohibited by the consent order. For example, information firewalls in Google-ITA and Comcast-NBCU clearly impede the joint operation and coordination of business divisions that would otherwise naturally occur. Non-discrimination provisions in Ticketmaster-Live Nation and other cases require even-handed treatment even though the merged company has more leverage against some businesses relative to others. Such provisions require the firm to “leave money on the table.” The firm may therefore be expected to crowd the

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[49] *See* David Sappington, *Regulating Service Quality: A Survey*, 27 J. REGUL. ECON. 123 (2005).

[50] 2011 REMEDIES GUIDE, *supra* note 2, at 5.

boundaries of the consent decree and search for alternative methods of achieving the same objectives.

Although the 2011 REMEDIES GUIDE acknowledges the problem of attempted "circumvention of the decree,"[51] it does not address the difficulty of preventing such actions. Those difficulties are illustrated by mandatory licensing fees or non-discrimination provisions which usually rely on language requiring "commercially reasonable" terms or "substantially the same" treatment of rivals. The meaning of such language in actual practice, however, is inherently debatable, with the result that the merged firm may well be able to evade or at least minimize the effect of the order.

These problems are similar to those affecting traditional regulation. Regulation cannot abolish a firm's incentive to maximize profit at the expense of customers and rivals, but it does try to restrain certain of its actions. The difficulties of doing so are demonstrated by the long struggle to implement an equal access system in telecommunications and the ongoing challenges of enforcing a wholesale open access regime in the U.S. electricity industry. The Bell Operating Companies, for example, spent many years and untold resources striving to relax the "line of business" restrictions imposed by the 1984 consent decree. These examples all caution about the difficulties of countering firm's natural incentives.

4. Implementation Costs

On-going oversight of a growing number of consent orders is likely to be a resource-intensive exercise, and the source of the necessary funding is unclear. It may be possible to extract the necessary resources from the parties, or it might be the case that

[51] *Id.*, at 13.

the agency obtains additional budgetary resources for these purposes. But it is more likely the case that the necessary resources come in large part from the agency's existing budget, implying a trade-off against its other enforcement activities and initiatives.

Based on evidence from traditional regulation, the amounts may be considerable. Close to 15 percent of the Federal Energy Regulatory Commission's (FERC's) and FCC's budgets for 2010, for example, were devoted to oversight and enforcement.[52] While the regulation engaged in by these agencies differs from that which the antitrust agency might do, the indisputable costs of adopting this approach must be recognized. Moreover, these cost implications are exacerbated by the fact that the expertise and structures of the antitrust agencies are not those of a regulator, but rather they are designed for the purpose of case-specific investigations. Developing the necessary capabilities may require institutional changes, at further cost in terms of time, dollars, and foregone alternatives.

5. Noncompliance and Arbitration

The reporting and non-compliance problems that accompany traditional regulation are also likely to attach to behavioral remedies. For example, since the antitrust agencies do not have the resources of sector regulators to monitor and oversee compliance, behavioral settlements rely largely on the reporting of problems by adversely affected parties to reveal non-compliance. That implies that the effectiveness of anti-retaliation clauses are potentially limited by the risks confronting the "victims" who come forward (e.g., jeopardizing their commercial relationships). Costly arbitration and side

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[52] Federal Energy Regulatory Commission, *Fiscal Year 2012 Congressional Performance Budget Request*, at 2 & 4, *available at* http://www.ferc.gov/about/strat-docs/FY12-budg.pdf; Federal Communications Commission, *Fiscal Year 2012 Budget Estimates Submitted to Congress*, at 39 & 69 (Feb. 2011), *available at* http://transition.fcc.gov/Daily_Releases/Daily_Business/2011/db0214/DOC-304636A1.pdf.

deals between the merged firm and rivals can also discourage reporting of non-compliance.

In anticipation of the disputes that are sure to arise, settlements may rely on arbitration. As demonstrated by the Google-ITA and Comcast-NBCU consent decrees, however, arbitration is likely to be costly, may well be ineffective, and seems likely to delay the realization of benefits from the restraints. Importantly for investment decisions, the element of predictability is also likely to be sacrificed under arbitration. This concern was captured in the court's reaction to the arbitration requirement in the Comcast-NBCU settlement:

> … the Government, at the public hearing, freely admitted that "[w]e can't enforce this decree." In addition, it is undisputed that neither the FCC nor the Department of Justice has any experience yet in administering either course of arbitration in the online-video-distribution context (citation omitted).[53]

It should also be noted that arbitration often outsources regulatory decisions involving a substantial amount of discretion to a process that is unfamiliar to either regulation or antitrust, posing a challenge to competition policy. Moreover, with the government taking itself out of the picture, there is no party at the arbitration table that represents the public/competition interest.

6. Term of the Remedy and Dynamic Markets

As previously noted, effective consent orders require foresight to anticipate future market conditions, firm operations and parameters, and even the regulatory system in place. The difficulty of crafting a consent order in the face of such imponderables is

[53] United States v. Comcast Corp., No. 1:11-CV-00106, at 6-7 (D.D.C. Sept. 1, 2011) (memorandum order).

arguably greater in nascent or dynamic markets such as those at issue in Comcast-NBCU and Google-ITA. Indeed, the 2004 REMEDIES GUIDE clearly recognized these problems, stating that "…even where 'effective,' efforts to regulate a firm's future conduct may prevent it from responding efficiently to changing market conditions."[54]

Moreover, it is not clear how a limited-term remedy addresses entrenched market power – such as Comcast's or Google's dominance – or even how the term of the remedy should be chosen to allow for needed entry and innovation. For example, in Google-ITA, a relative short consent order "window" decreases the probability that entrants will scale high entry barriers and increases the risk that incumbents scale back investment or even exit the market.[55] Indeed, behavioral remedies that are intended to foster the entry or growth of competitors should be viewed with skepticism, as they depend not only on independent decisions by non-parties, but over time will be subjected to exogenous forces that are difficult to predict.

A behavioral remedy must therefore navigate the twin risks of not committing itself sufficiently into the future, versus imposing restraints that will lock the parties (and the market) into a static or incorrect set of assumptions. The latter could unduly shape or constrain how competition develops, or constrain entry and innovation. Avoidance of these risks requires the agency, at a minimum, to devote resources to the ongoing

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[54] 2004 REMEDIES GUIDE, *supra* note 2, at 8.

[55] The Division notes in its Competitive Impact Statement that "Five years will provide those OTIs that do not wish to be dependent on Defendants' P&S system a sufficient period of time to switch to an alternative system." United States v. Google, Inc., 76 Fed. Reg. 21,020, 21,023 (DOJ April 14, 2011) (competitive impact statement).

monitoring of the industry so that it might go back to court if adjustments to the order seem appropriate.

A further important issue over time is that the agency itself changes – in its leadership, in its policies, and in its approaches. As a result, there is less certainty about the actual future effect of a behavioral remedy than there is with respect to divestiture. The latter is a one-off event, unlikely to be reviewed or reversed, whereas a behavioral remedy is an on-going matter between the agency and the merged firm. Apart from any effort by the latter to relax the restraint, the agency itself may change its view of the consent order or face constraints on its ability to enforce it. These possibilities make any consent order currently imposed subject to considerable uncertainty about its future effect. In all these respects, too, behavioral remedies have much in common with traditional regulation. Difficulties with forecasting, forward-looking parameters, commitment, and predictability are all familiar problems in the regulatory process.

B. Major Issues for Enforcement

Behavioral remedies raise a number of additional issues specifically with respect to enforcement. Many of these flow not from the similarities between antitrust and regulatory enforcement, but from their differences. Three of these are: (1) procedures and control rights, whereby antitrust authorities limit themselves to checking the lawfulness of a firm's conduct, while regulators have more extensive powers by which they can constrain the firm's conduct; (2) timing of oversight, whereby antitrust enforcers intervene *ex post* but regulators intervene *ex ante*, sometimes for protracted periods of time; and (3) information-intensiveness and continued relationship, which is characteristic of regulators but not of antitrust enforcers.[56]

1. Blending of Prosecutorial and Regulatory Functions

A major question is how an antitrust authority will effectively blend prosecutorial and regulatory functions. The 2011 REMEDIES GUIDE indicates that the "evaluation and oversight" of all remedies will be placed within the Office of the General Counsel (OGC), which oversees the litigation divisions that, in turn, oversee consent decree compliance and violations.[57] The practical implication of this allocation of resources is that personnel could be in a position of answering to two different bosses – those in charge of cases in litigation, and those monitoring consent orders. While this arrangement presents opportunities for cross-fertilization, so that experience can inform the choice and term of remedy in future cases, it could also confound incentives and priorities. But even those opportunities may be limited by the constraints surrounding confidential investigations and the internal conflicts that are bound to arise when individuals on an OGC monitoring/compliance team are assigned to other on-going cases supervised elsewhere in the Division.[58]

2. Coordination with Regulatory Agencies

In cases where a sector regulator also has statutory authority to review a merger, behavioral remedies raise the question of inter-agency coordination and cooperation. The

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[56] This useful paradigm is taken from Motta, et al., *supra* note 12, at 626-627, *citing* Patrick Rey, *Towards a Theory of Competition Policy* (IDEI, Univ. of Toulouse Working Paper No. 121, 2001), *available at* http://idei.fr/doc/by/rey/towards.pdf.

[57] 2011 REMEDIES GUIDE, *supra* note 2, at 33.

[58] At a more microscopic level, litigating attorneys in a government agency are likely to disfavor being compliance "officers," since it is generally not a good way to build a reputation or move up in the ranks.

2011 REMEDIES GUIDE explains that the presence of sector regulation might make the implementation of antitrust remedies more efficient.[59] However possible that may be, the court's skepticism over the arbitration requirement and enforceability of the consent decree in Comcast-NBCU caution against any such presumption. Indeed, agency coordination may also create tensions.

For example, regulators such as the FCC and FERC will almost always impose behavioral remedies if a merger cannot otherwise be found to be in the public interest. The antitrust agency must then decide whether to take a similar approach or pursue structural remedies that could nullify, or even require the agency to mount a legal challenge to the regulatory conditions. The procedural inefficiency and conflicts that could result from such disparities could put pressure on the antitrust agency to opt for behavioral remedies. The coordination question is complicated by Supreme Court decisions in *Trinko* and *Credit Suisse*, which could be read to imply that if a regulatory agency has authority to regulate competition, then the DOJ is preempted, even if there is an antitrust savings clause in the authoritative statute.[60]

3. Testing Behavioral Remedies

The 2011 REMEDIES GUIDE recognizes the importance of developing remedial best practices. Without a track record associated with behavioral remedies – particularly the more invasive measures contemplated in the 2011 REMEDIES GUIDE – the goal of developing best practices presents something of a Catch-22. Namely, without good data on the effectiveness of such remedies over time, these remedies remain largely untested,

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[59] 2011 REMEDIES GUIDE, *supra* note 2, at 20-21.

[60] 540 U.S. 398 (2004) and 551 U.S. 264 (2007).

but without attempting their use, no data can be collected. The policy prescription in most such cases is to "go slow." However, as noted earlier, the DOJ imposed behavioral remedies in three major cases within an 18-month period, one of which involved a complex and relatively novel case of coordinating remedies with a regulatory agency. And those remedies were soon codified in a new policy guide.

This rapid progression of events raises a number of concerns in light of the fact that the 2011 REMEDIES GUIDE makes no substantive provisions for evaluating the newly endorsed behavioral remedies. It simply notes that compliance with prohibited and affirmative acts can be "monitored" by the staff.[61] In contrast, the REMEDIES GUIDE addresses in considerable detail implementation issues relating to structural remedies, largely because of accumulated experience and the benefit of organized retrospectives. The absence of a similar implementation framework for behavioral remedies could have a significant impact on their effectiveness in light of two important issues.

First, it is not yet clear how aggressively behavioral remedies will be enforced and how potential conflicts between agencies will be resolved, particularly as agency leadership and priorities change over the span of the consent order. Second, there is relatively little experience with monitoring how well a behavioral remedy restores competition and a scarcity of retrospectives on the use of behavioral remedies. For example, a major type of behavioral remedy is the non-discrimination condition, which is designed to replace competition lost as a result of the merger by requiring the merging parties to give rivals access to or interoperate with certain segments of their system. Experience with maintaining an "open" system for a period of years dictated in a consent

[61] 2011 REMEDIES GUIDE, *supra* note 2, at 34.

decree, however, is relatively limited.[62] Without a track record on how open systems perform post-remedy – and with substantial evidence from regulated industries that highlights the difficulties associated with open access regimes – proceeding cautiously is the best policy course.

4. Antitrust "Capture"

A systemic shift toward behavioral antitrust remedies imposed by antitrust enforcers is likely to highlight issues involving agency interactions with firms. On one hand, effective monitoring and oversight of behavioral remedies may result in a better-informed government with respect to the industries and issues being monitored. That outcome, however, assumes that agency resources are optimized to provide for adequate oversight and monitoring, there is a focus on developing best practices, and there is an ideological consistency across political and agency leadership.

On the other hand, the increased interaction between large private companies and government enforcers necessitated by behavioral remedies could increase the risk that the antitrust agency is "captured" by the economic interests of merging parties. While U.S. antitrust agencies have been commendably free of such influence, it should be recognized that for the antitrust agencies, there is little glory in compliance, but for the merged company, the incentives are quite different. Finding ways around the harsher aspects of a consent order may be worth a great deal to the client, who can justify expending significant resources on minimizing its impact on profits. Merging parties might therefore

[62] For further discussion, *see* Joseph Farrell, Hunter K. Monroe & Garth Saloner, *The Vertical Organization of Industry: Systems Competition Versus Component Competition*, 7 J. ECON. MANAGE. STRATEGY 143 (1998). For a broader discussion of systems competition, *see* Gregory Gundlach & Diana Moss, *Introduction, in Symposium: New Perspectives on Systems Competition*, 56 ANTITRUST BULL. 1 (2011).

lobby in settlement proceedings for certain types of behavioral restraints because they allow the merged firm to more easily pursue profit-maximizing behavior.

V. Observations and Policy Recommendations

Whether the types of behavioral remedies set forth in the 2011 Remedies GUIDE and implemented in consent decrees in three recent merger cases will gain a lasting foothold remains to be seen. To this point there is no evidence on the efficacy and effectiveness of these remedies, and so it is premature to decide whether they will prove successful in restoring the competition lost in such mergers. This White Paper has nonetheless identified a number of issues that warrant attention and prompt some concern. Based on this early analysis, a number of observations and policy recommendations would seem justified.

- ***To the extent possible, structural remedies should be applied. In limited cases where such remedies are difficult to craft, behavioral remedies may be acceptable.*** Structural remedies have advantages in terms of clarity, cost, and certainty, and have withstood the test of experience. They should arguably always be used in horizontal merger cases. Under certain circumstances, it is true that structural remedies may be difficult to implement. These include, but are not limited to, vertical mergers where efficiencies are large and can clearly be separated from anticompetitive actions by such remedies, cases involving dominant firms with control over essential networks or patented technologies, and instances where identifying a package of "winning" assets and acceptable buyers is difficult. Ordinarily, however, structural remedies are to be preferred for all the reasons documented in this White Paper.

- ***The decision to employ behavioral remedies should be based on a multi-factor test.*** Injunctions are most likely a more effective deterrent to anticompetitive mergers, for the reason that parties are less likely to propose a merger that they believe will be challenged than if they anticipate a likelihood of reaching a satisfactory settlement. Once it is determined that a merger is anticompetitive, a compromise that permits the merger in return for behavioral remedies should come only after considering complete rejection of the transaction and other structural remedies. This judgment should be based on an in-house consensus by well-informed litigators on the probability of success at various levels of the legal system. Thus, the case for behavioral remedies will be strongest where the chances of prevailing in court are deemed very small, the importance of establishing a principle of antitrust enforcement is insubstantial, and the need to preserve agency resources for more important activities is great.

- ***Given the problems inherent with arbitration, the government should look toward other methods for policing compliance with – and increasing the likelihood of successfully enforcing – a consent decree.*** A primary method of ensuring compliance with a consent order is often to put the burden on complainants to "tell us if there is a problem." Complainants can avail themselves of arbitration to air and settle disputes, but at some expense and uncertainty regarding the ability to appeal a decision. The need voluntarily to come forward under circumstances where retaliation is possible also undermines a compliance process that depends on victims to surface in public. This problem is likely to be complicated in mergers where both an antitrust and regulatory arbitration process is available to address disputes. If a consent order is to serve its declared purpose, better mechanisms are needed to ensure compliance and replace the competition that was lost by virtue of the merger.

- ***Thorough implementation, monitoring, and evaluation provisions should be built into a behavioral remedy.*** Compliance conditions generally state that the parties will be required to provide the government with a variety of information on request. This places the parties in a passive role in the compliance process. Future consent decrees should go farther and outline specific actions to be taken by the parties, such as the filing of periodic market monitoring and compliance reports (along with supporting data). This provides the government and the public with information on the state of the markets affected by the merger and will facilitate retrospectives on the effectiveness of behavioral remedies. Market monitors may also be required, at the merging parties' expense, to independently evaluate and report on the role of the merged firm in the market. Mechanisms for funding market monitoring include an HSR-type filing fee that is incorporated into the consent decree.

- ***Updated guidelines on vertical mergers are essential.*** Vertical merger guidelines were last updated in 1984 and do not accurately reflect either current economic understanding or the agencies' enforcement stance on vertical mergers. If behavioral remedies are to play a larger role in restructuring transactions that involve vertical issues, then there would be considerable benefit from the guidance and transparency offered by updated vertical merger guidelines that clarify the types of competitive concerns that a remedy must address.[63]

- ***One obvious and important improvement to non-discrimination and fair dealing provisions is to base them on a "commercially and competitively reasonable" standard.*** Incentives to pursue normal business behavior and evade non-discrimination restraints pose significant challenges. This problem is exacerbated by the use of "commercially reasonable" provisions in consent orders. For a

[63] *See* Langenfeld, *supra* note 14.

merged firm that possesses market power, for example, monopoly pricing might fall within the confines of such language. A "commercially and competitively reasonable" standard would be an improvement, although it would not avoid the endemic problem of monitoring and enforcement.

- ***"Comparability" standards set forth as part of non-discrimination conditions could result in a degradation of innovation.*** Antitrust agency personnel are unlikely to be equipped to make a judgment as to whether a complex technology provided by the parties is appropriately "comparable." Such a determination would challenge even the best engineers, particularly in emerging or dynamic markets. Holding a merged company to such as standard is likely to invite evasion of the restraint and slow innovation.

- ***The term of a remedy should be based on demonstrable progress toward the desired goal of competition or innovation.*** Terms that fix the length of time the consent decree will be in force are inherently arbitrary because of the uncertainty associated with dynamic markets and the difficulty of forecasting future market conditions. Since both inadequate and excessive time periods run the risk of defeating the purpose of the remedy, some criteria are needed to demonstrate achievement of desired goals. This may include whether expected innovation is occurring and/or new products brought to market.

- ***Behavioral remedies should be tested under the auspices of a dedicated program within the Antitrust Division's Office of General Counsel.*** Provisions for monitoring in the 2011 REMEDIES GUIDE are likely to be inadequate or ineffective for collecting the type and volume of data and information required to test behavioral remedies and facilitate retrospectives. Much like the antitrust agencies have collected and evaluated evidence relating to the implementation of structural remedies, a similar effort will be required for behavioral remedies.

- ***The 2011*** REMEDIES GUIDE ***should be re-evaluated relatively soon.*** The revisions should be placed on the Antitrust Division's agenda for re-evaluation in 2015, in the light of experience with the effectiveness and administration of on-going consent orders. A program for generating supportive in-house and external analyses should be adopted early on.

DOES MERGER CONTROL WORK? A RETROSPECTIVE ON U.S. ENFORCEMENT ACTIONS AND MERGER OUTCOMES

John E. Kwoka, Jr.*

Merger control is an antitrust priority in the United States and elsewhere, but its effectiveness has not been well established with the kind of empirical evidence developed, for example, with respect to cartel enforcement, much less the vast literature evaluating industry regulation and other public policies. There are a number of reasons for this relative dearth of evaluations in the case of mergers and merger control. Among them is the fact that, at the level of the individual firm and its products, performance data and other necessary information are not usually publicly available. In addition, establishing the counterfactual—what would have occurred absent the merger, or with some alternative policy response—can be quite difficult to establish for a single firm where other influences may dominate. Additional concerns about methodology, modeling, and data quality have been widely noted as impediments to evaluating mergers and merger control.

The importance of gaining an understanding about these issues is underscored by two facts: first, mergers are very common in the United States and other market economies. During the past decade more than 15,000 mergers were reported to the Justice Department and the Federal Trade Commission, with some multiple of that not even reported because they fell short of statu-

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* Neal F. Finnegan Distinguished Professor of Economics, Northeastern University. Earlier versions of this article were presented at the Federal Trade Commission Microeconomics Conference (2010), the International Industrial Organization Conference (2011), the ACLE Conference on Competition Policy for Emerging Economies (2011), EARIE (2011), the Southern Economics Association meetings (2011), and the Loyola Law School Antitrust Colloquium (2012). The article benefited from the many comments received in those presentations. Special thanks go to David Balan, David Balto, Malcolm Coate, and Andy Gavil for their comments, to Lanier Benkard for providing data, to Kathy Downey, Chengyan Gu, and Tom Plahovinsak for research assistance, and to reviewers and editors of this *Journal* for their constructive suggestions. Further gratitude is extended to Dan Greenfield for his many substantial contributions to the design and implementation of this research. All opinions and any remaining errors are the sole responsibility of the author.

tory notification thresholds. The second reason is that some recent merger policy decisions seem to have been of unusual importance for their markets. Mergers involving software and operating systems, airlines, and other sectors have been especially important in the evolution and operation of key sectors of the economy.

These factors—the importance of mergers and the lack of systematic evidence of effects—have prompted a growing chorus of appeals for more study of the effects of mergers and the effectiveness of antitrust policy toward mergers. The present study takes one modest step toward greater understanding of mergers and merger control. It does so by exploiting the growing body of economic literature that evaluates the actual effects of specific mergers. These so-called "merger retrospectives" typically compare product price before and after a particular merger, controlling in some careful fashion for other possible influences. The methodology for such studies has become fairly standardized, so that comparable and reliable estimates of the effects of a significant number of mergers are now available.

Compiling all available studies itself is an informative exercise because there is more to be learned from the totality of these studies than from a single one or subset of them. An exhaustive survey has uncovered significantly more such studies than previously recognized—a total of sixty published studies that contain fifty-three estimates of the price effects for distinct mergers.[1] While scarcely the universe of mergers, and not even the entire set of interesting mergers, and suffering from other possible selection issues, this is nonetheless a substantial enough set of data to permit analysis. My method is essentially a meta-analysis: it synthesizes all available literature on the effects of individual mergers.

That analysis will prove interesting, but it does not by itself cast light on merger policy. Evaluating policy ultimately requires data and other information about the prior conditions in the industry, the theory or methodology employed by the reviewing agency, and any enforcement action taken by that agency for each of the mergers studied in the retrospectives. Without such information, it is impossible to judge whether, say, an adverse outcome was the result of a flawed agency decision or the outcome of unforeseeable factors. In an effort to address these issues, this study augments data on the fifty-three transactions examined in the retrospectives with information on prior conditions and agency actions for each. If complete, this information would comprise a comprehensive "end-to-end" account of these mergers, but, unfortunately, missing information results in a very unbalanced panel. The most

[1] The numerical difference is due to the fact that in several cases the same merger has been examined in more than one study.

complete set of information concerns agency actions and remedies. Combined with estimates of price effects from retrospective studies, this nonetheless permits a detailed analysis of one indisputably important issue, namely, the relationship between agency actions and performance outcomes.

The remainder of the article is organized as follows. Part I provides an analysis of data on overall investigations and case-bringing released by the Federal Trade Commission and the Justice Department. Part II describes my database centered on merger retrospective studies but also including information on prior conditions in each industry and on agency actions with respect to the mergers. Parts III and IV then analyze the relationship between prior conditions, agency actions, and performance outcomes.

Due to the nature and limitations of the data, these observations cannot be viewed as definitive, but they do reveal patterns that suggest a number of likely conclusions for the studied mergers. First, merger control policy in the United States has been considerably more permissive of concentration in the studied mergers than the contemporaneous Merger Guidelines have suggested. Second, a very large fraction of carefully studied mergers shows that those mergers resulted in higher prices, even when a remedy was imposed. Third, the results in the studied mergers vary by industry; for example, airline and hospital mergers generally result in significantly higher prices but petroleum mergers have quite modest effects. Fourth, horizontal arrangements short of merger—joint ventures and airline code-sharing arrangements—are not generally associated with adverse competitive effects. Fifth, on average, the antitrust agencies make the correct decisions as to whether to act against mergers, clearing those without anticompetitive effect significantly more often than those resulting in price increases. Sixth, the studied remedies imposed on problematic mergers do not appear generally effective in preventing post-merger price increases, with non-structural remedies substantially less effective than divestitures.

I. MERGER ENFORCEMENT IN PRACTICE

The first step in analyzing the merger policy process is to identify the basis for actions taken by the antitrust agencies. While such information is not available for the vast majority of mergers that come before the Justice Department and the Federal Trade Commission, those agencies have, on occasion, released aggregated and/or anonymized data that offer some insights into the characteristics of markets where mergers have triggered formal investigations and enforcement actions. No individual firms or mergers are identified in these data, so specific mergers cannot be followed through the entire merger review process to resolution and outcome. These data nonetheless aid in understanding the actual practice of merger control in the United States.[2]

TABLE 1: MARKETS IN WHICH THE AGENCIES CHALLENGED MERGERS (1999–2003)

Post-Merger HHI	***Change in the HHI***								
	0–99	100–199	200–299	300–499	500–799	800–1,199	1,200–2,499	2,500 +	Total
0–1,799	0	17	18	19	3	0	0	0	57
1,800–1,999	0	7	5	14	14	0	0	0	40
2,000–2,399	1	1	7	32	35	2	0	0	78
2,400–2,999	1	5	6	18	132	34	1	0	197
3,000–3,999	0	3	4	16	37	63	53	0	176
4,000–4,999	0	1	3	16	34	30	79	0	163
5,000–6,999	0	2	4	16	9	14	173	52	270
7,000+	0	0	0	2	3	10	44	223	282
Total	2	36	47	133	267	153	350	275	1263

Source: Fed. Trade Comm'n & U.S. Dep't of Justice, Merger Challenges Data, Fiscal Years 1999–2003 (Dec. 2003), *available at* http://www.ftc.gov/os/2003/12/mdp.pdf.

One data set tabulates the structural characteristics of all 1263 markets implicated by the 173 mergers that were challenged by the FTC and DOJ between 1999 and 2003. Table 1 reproduces that tabulation, essentially a count of such markets according to their level of HHI and its change. The data clearly show that mergers in markets with HHIs less than 2000 or where HHI changed by less than 300 were rarely challenged. Indeed, the median HHI was 4500 and the median change in HHI was approximately 1200. These numbers are all far in excess of the thresholds set forth in the Merger Guidelines in existence at the time of the challenges. Those guidelines suggested the distinct possibility of antitrust challenge for mergers in industries with HHI values between 1000 and 1800, and the likelihood of a challenge in cases of values over 1800 when the merger caused an increase of more than 100 points. Some part of the divergence between stated and actual policy undoubtedly is due to

[2] U.S. Dep't of Justice & Fed. Trade Comm'n, Merger Challenges Data, Fiscal Years 1999–2003 (Dec. 18, 2003), *available at* http://www.ftc.gov/os/2003/12/mdp.pdf; Fed. Trade Comm'n, Horizontal Merger Investigation Data, Fiscal Years 1996–2011 (Jan. 2013), *available at* http://www.ftc.gov/os/2013/01/130104horizontalmergerreport.pdf; *see also* Malcolm B. Coate, *Bush, Clinton, Bush: Twenty Years of Merger Enforcement at the Federal Trade Commission*, GLOBAL COMPETITION POL'Y, Summer 2009.

the importance of other factors that outweigh concentration statistics, although many observers have concluded that actual practice has simply been more tolerant of mergers than the standards suggested by the Guidelines.[3]

Further insight can be gleaned from FTC data focusing on the 264 horizontal merger investigations that the agency conducted between 1996 and 2011, and the actual challenges brought as a result of those investigations. A total of 1359 relevant markets were involved. As shown in Table 2, these data indicate that more than three-fourths of all the investigated markets resulted in enforcement actions, but few of these occurred when the Herfindahl Index was less than 1800 or when the change in the Herfindahl was less than about 200–300. Consistent with the overall investigations data, the vast majority of merger enforcement actions occurred in markets with considerably higher values of HHI and larger increases in HHI.[4]

The FTC tabulation reports the actual numbers of investigations and of closures without action, according to brackets of HHI values and changes in HHI (ΔHHI). This permits construction of a variable for the probability of enforcement action, which can then be related statistically to those structural conditions. In linear regression, estimation of this model yields the following results:

$$\text{PR(ACTION)} = 25.6 + \underset{(.0014)}{.00927} * \text{HHI} + \underset{(.0046)}{.0061} * \Delta\text{HHI} \tag{1}$$

Standard errors of the estimates are given in parentheses. They imply that the coefficients on both HHI and its change are at or near statistical significance—HHI at better than the conventional 5 percent, ΔHHI at 9 percent in a one-tail test.[5] This supports the proposition that merger enforcement action is indeed more likely for industries characterized by higher levels of concentration and by larger changes in concentration as a result of the merger. The estimated coefficients imply, for example, that a merger occurring in an industry with a 1000 point higher HHI is associated with a 9.3 percent greater probability of challenge, and that a change in HHI that is 1000 points larger results in a 6.1 percent greater likelihood of a challenge.[6]

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[3] Jonathan B. Baker & Carl Shapiro, *Reinvigorating Horizontal Merger Enforcement*, *in* HOW THE CHICAGO SCHOOL OVERSHOT THE MARK 235 (Robert Pitofsky ed., 2008).

[4] In addition to the filing of actual cases, "enforcement actions" include instances in which the parties abandoned the merger in the face of likely challenge or escalating investigation.

[5] A one-tail test is appropriate when the hypothesis being tested is one-directional, e.g., that the probability *increases* with concentration, not just that it varies upward or downward with concentration. In the present context there is no plausible reason to expect the probability of enforcement action *declines* with higher concentration or with larger increases in concentration, so that a one-tail test is appropriate.

[6] It is also possible that the likelihood of enforcement action according to changes in HHI may be different depending on the level of HHI itself. This possibility is readily tested by includ-

TABLE 2: FTC MERGER INVESTIGATIONS BY HHI AND CHANGE IN HHI (1996–2011) ENFORCED/NOT ENFORCED

		Change in HHI (Delta)									
		0 – 99	**100 – 199**	**200 – 299**	**300 – 499**	**500 – 799**	**800– 1,199**	**1,200– 2,499**	**2,500 +**	***TOTAL***	**Percent Enforced**
Post Merger HHI	**0 – 1,799**	0/14	17/31	19/20	17/11	3/7	0/1	0/0	0/0	56/84	40.0
	1,800 – 1,999	0/4	5/4	5/6	12/4	12/5	0/0	0/0	0/0	34/23	59.6
	2,000 – 2,399	1/2	1/6	7/8	25/19	32/12	2/2	0/0	0/0	68/49	58.1
	2,400 – 2,999	1/2	4/2	6/5	18/6	44/14	26/10	0/0	0/0	99/39	71.7
	3,000 – 3,999	1/3	3/2	5/2	9/5	25/14	71/21	39/14	0/0	153/61	71.5
	4,000 – 4,999	0/0	2/2	1/1	5/1	10/4	18/4	68/3	0/0	104/15	87.4
	5,000 – 6,999	1/0	6/0	8/2	8/1	19/0	21/2	145/20	47/5	255/30	89.5
	7,000 +	0/0	0/0	1/0	1/0	3/0	9/0	26/1	246/2	286/3	99.0
	Total	4/25	38/47	52/44	95/47	148/56	147/40	278/38	293/7	1055/304	77.6
	Percent Enforced	**13.8**	**44.7**	**54.2**	**66.9**	**72.5**	**78.6**	**88.0**	**97.7**	**77.6**	

Source: Fed. Trade Comm'n, Horizontal Merger Investigation Data, Fiscal Years 1996–2011 (Jan. 2013), *available at* http://www.ftc.gov/os/2013/01/130104horizontalmergerreport.pdf.

The FTC data include additional information on industries subject to agency investigations and enforcement actions. One especially useful compilation, reproduced as Table 3, focuses on the number of significant firms in the relevant market. As shown there, the probability of enforcement action is a strictly declining function of the number of significant competitors in the market affected by the merger. For mergers that reduce the number of significant-size firms from 8 to 7 or from 7 to 6, for example, only about 12 to 24 percent resulted in enforcement, whereas for those causing a reduction from 4 to 3 significant competitors, the percentages are essentially reversed, with 77 percent resulting in enforcement action.

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ing an interaction term between HHI and its change. The estimated coefficient on that interaction term turns out to be negative, implying that the probability of an investigation resulting in a challenge is in fact *lower* when both HHI and its change are large. It remains true, however, that both greater concentration and larger increases in concentration result in greater likelihood of enforcement action, with much stronger significance for ΔHHI.

TABLE 3: FTC HORIZONTAL MERGER INVESTIGATIONS NUMBER OF SIGNIFICANT COMPETITORS (FY1996 – FY2011)

		Outcome			
		Enforced	**Closed**	***TOTAL***	**Percent Enforced**
Significant Competitors	2 to 1	297	6	303	98.0
	3 to 2	331	40	371	89.2
	4 to 3	174	51	225	77.3
	5 to 4	66	37	103	64.1
	6 to 5	19	35	54	35.2
	7 to 6	3	22	25	12.0
	8 to 7	6	19	25	24.0
	9 to 8	0	11	11	0
	10 to 9	2	4	6	33.3
	10 +	0	20	20	0
	TOTAL	898	245	1,143	78.6

Source: Fed. Trade Comm'n, Horizontal Merger Investigation Data, Fiscal Years 1996–2011 (Jan. 2013), *available at* http://www.ftc.gov/os/2013/01/130104horizontalmergerreport.pdf.

These data also highlight the importance of entry conditions to the disposition of merger investigations. They show that all forty-five FTC investigations in this time period of markets where entry was judged to be "easy" resulted in closure rather than enforcement action. By contrast, in markets where entry was judged difficult, enforcement occurred in more than 80 percent of all investigations overall. Tabulations show higher percentages of enforcement actions where the HHI is greater, where the change in HHI is greater, and where the number of remaining significant competitors is lower.

This review of merger control data establishes that enforcement practice broadly reflects the structural characteristics of markets that are set forth in the Merger Guidelines, albeit with thresholds and degrees of importance that suggest a more permissive policy than implied by those Guidelines.

II. RETROSPECTIVE STUDIES OF MERGERS

If the outcomes of the mergers described in the FTC-DOJ data were known, it would be possible to conduct a comprehensive evaluation of merger policy.[7] In the absence of such information, however, we must look elsewhere. That "elsewhere" is the set of mergers for which information about performance outcomes actually exists.[8] While this vastly reduces the number of observations, it permits examination of the relationships between prior conditions in the industry, agency decisions and actions taken with respect to the merger, and price and other outcomes. As noted previously, crucial new information now derives from the growing body of merger retrospectives. We begin with a brief description of these studies, which define my database.

A. Background on Merger Retrospectives

The typical merger retrospective is an empirical examination of the effect on the price of a key product from a consummated merger investigated by either the FTC or the Justice Department. The empirical methodology most commonly used in these studies is difference-in-difference. The difference-in-difference approach is nicely illustrated by a study by Barton and Sherman, who published the first such merger retrospective in 1984.[9] Barton and Sherman examined the price effects of two acquisitions by Xidex Corporation of its major competitors in each of two product markets for duplicating microfilm. The first acquisition, in 1976, increased Xidex's market share from 40 percent to 55 percent. The second, in 1979, raised its share of the second product from 67 percent to 93 percent. Barton and Sherman compared the post merger price of each product to the respective premerger price.

Of course, any number of other possible influences could account for the observed price change. One method for addressing this possibility would be to explicitly include all such influences in a reduced form empirical model, so they could be held constant and the effect of the merger isolated. This approach requires enumeration of all possible influences, and then their measurement and inclusion in the appropriate empirical model. An alternative method for addressing possible confounding influences is to compare the observed price change for the products undergoing merger to the change in prices in a control group of products with similar demand and cost character-

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[7] Because this information is in the possession of the reviewing agencies, it seems clear that they are uniquely positioned to undertake such reviews.

[8] The importance of analyzing outcomes, rather than outputs like number of cases, has been stressed by William Kovacic, among others. *See* WILLIAM E. KOVACIC, THE FEDERAL TRADE COMMISSION AT 100: INTO OUR 2ND CENTURY (2009), *available at* http://www.ftc.gov/os/2009/01/ftc100rpt.pdf.

[9] David M. Barton & Roger Sherman, *The Price and Profit Effects of Horizontal Merger: A Case Study*, 33 J. INDUS. ECON. 165 (1984).

istics but not affected by the merger. Any difference between the two differences should be attributable to the merger itself.[10]

In Barton and Sherman's analysis, the control group was precisely that—a set of products produced with similar technology but not involved in the mergers in question. The difference in price differences between the affected and unaffected products implied that the merger was in fact responsible for substantial price increases on both of the products where Xidex acquired its major rivals. The Federal Trade Commission sued Xidex in 1981 and ultimately secured a settlement with the company.[11]

The economics literature now contains a considerable number of these merger retrospectives. Most are quite similar to Barton and Sherman's original study, but a few vary in some respects. Thus, while most focus on price as the key outcome variable, a few also examine the effects of merger on cost or on the quality of the product.[12] In addition, a couple of studies seek to apply this methodology to evaluate unconsummated mergers, that is, the outcome of proposed but blocked mergers. In these cases the ex post observations involve the same two firms as existed prior to the proposed merger.

It should also be recognized that these retrospectives have focused on mergers with specific characteristics. One common characteristic is that the mergers are competitive "close calls," that is, cases where the antitrust issues were substantial. Consequently, the studies investigate the "policy margin" rather than the typical merger investigated by the antitrust agencies, much less the typical merger. In addition, a few retrospective studies examine mergers where the agency filed an antitrust complaint after the merger was consummated, so that any enforcement action did not necessarily precede the price evaluation. A final distinguishing characteristic of this literature is that the studies focus on markets where the relevant data are publicly available. While perhaps obvious, this feature has led to a disproportionate number of studies in certain industries, such as airlines, that are (or were) subject to regulation and associated data reporting requirements.

These considerations make clear that the body of available merger retrospectives does not represent a random sample of all mergers, nor even a ran-

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[10] Alternative methodologies include structural estimation and event studies. Both of these alternatives encounter practical difficulties. Structural estimation is very demanding of model specification, data, and econometric issues. Event studies rely on questionable assumptions about the reliability of judgments of financial markets. Notably, see R. Preston McAfee & Michael A. Williams, *Can Event Studies Detect Anticompetitive Mergers?*, 28 ECON. LETTERS 199 (1988), for an event study of the Xidex merger itself, which indicated the absence of competitive concern—something refuted by Barton and Sherman's direct price analysis.

[11] Xidex Corp., 102 F.T.C. 1 (1983).

[12] Examination of quality is particularly important where higher postmerger price might be related to improved quality.

dom sample of those that pass before the competition agencies. These selection issues will condition my results and the significance that should be ascribed to them.

B. MERGERS WITH RETROSPECTIVE STUDIES

An exhaustive search for merger retrospectives in the economics and related literatures has yielded well over one hundred candidate studies, but for inclusion in the present database, a study must satisfy several criteria. First, the study must examine a purely or substantially horizontal transaction. In addition to mergers and acquisitions, this includes joint ventures and airline code-sharing agreements since both can be viewed as partial mergers and, hence, arguably might be expected to have qualitatively similar effects.[13] I omit purely vertical mergers because they raise different competitive and policy issues. Mergers involving both horizontal and vertical issues, however, are included if there is a substantial horizontal aspect to the merger (e.g., some petroleum industry mergers consolidating retail operations and also refining).

Additional criteria affect the number of qualifying studies. In order to evaluate policy, I include only those structural transactions involving U.S. companies and markets. Furthermore, because policy takes place at the level of the individual merger or transaction, any study that only reports the average outcome for a group of mergers (or transactions) is excluded.[14] While such studies may cast light on the outcomes of those mergers collectively, they do not permit matching individual transactions to policy actions and hence are not useful for present purposes. In addition, each included study must use a recognized analytical technique such as difference-in-difference, thus meeting modern standards of research design.[15] And it must have appeared in a peer-reviewed journal in economics or closely related discipline or in a respected working paper series such as that from the NBER, FTC, or DOJ.

The result of applying these criteria is a database of sixty qualifying merger retrospectives (fifty-nine with price estimates), beginning with the previously described Barton and Sherman analysis.[16] The actual number of observations,

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[13] Indeed, the economics literature treats these structures as partial mergers. *See* Timothy F. Bresnahan & Stephen C. Salop, *Quantifying the Competitive Effects of Production Joint Ventures*, 4 INT'L J. INDUS. ORG. 155 (1986); *see also* John E. Kwoka, Jr., *The Output and Profit Effects of Horizontal Joint Ventures*, 40 J. INDUS. ECON. 325 (1992).

[14] *See, e.g.*, E. Han Kim & Vijay Singal, *Mergers and Market Power: Evidence from the Airline Industry*, 83 AM. ECON. REV. 549 (1993) (examining fourteen airline mergers in a common regression framework, leading to a general result but no assurance that the average result found applies to any single included merger).

[15] In fact, all the studies in our data base employ some version of difference-in-difference. A few offer alternative measures as well as difference-in-difference-based estimates.

[16] These numbers considerably exceed the totals cited in prior surveys and summaries. *See, e.g.*, Graeme Hunter et al., *Merger Retrospective Studies: A Review*, ANTITRUST, Fall 2008, at 34

however, differs from this. Several of these studies evaluate more than a single transaction, which by itself would increase the number of merger observations. On the other hand, there are a number of instances in which the same transaction is examined in more than one study. Because each merger is ultimately associated with a single outcome measure, combining two or more estimates reduces the number of observations. Netting out these counteracting factors results in a set of fifty-three unduplicated estimates of the price (and in a few instances, other effects) of mergers and related horizontal transactions. These constitute the core database for the present study, first to conduct an analysis of the outcomes themselves, and then to combine with information on agency actions.

III. MERGERS AND PRICE OUTCOMES

This section analyzes the fifty-three price outcome estimates from the mergers and similar transactions studied in the retrospectives just described. I begin with an examination of some features of this data set and then offer some preliminary observations about the reported outcomes.

A. Preliminary Observations on Studied Transactions

The fifty-three studied transactions that comprise the basic dataset are listed in the Appendix. Forty-six of these are true mergers, with 3 joint ventures (all in petroleum) and 4 airline code-shares accounting for the remainder. Two of these transactions occurred in the 1970s, with 8 in the 1980s, 32 in the 1990s, and 11 in the 2000s. The apparent drop-off in the most recent decade is undoubtedly due to the lag between a merger and any retrospective study of it, not to diminished interest in this area.

The fifty-three transactions arise in 16 different industries. The list of industries with more than a single transaction in the database is headed by petroleum with 12 observations, followed by academic journals and airlines with 10 and 9 cases, respectively. Others are hospitals (5) and microfilm (2). Also noteworthy is the fact that 11 of the 53 transactions, while fundamentally horizontal in nature, also raised competitive concerns resulting from vertical relationships created by the transactions. A few studies estimate a performance measure in addition to price. Studies of 4 mergers examine some measure of product or service quality, while in 11 cases the effects on output are estimated.

(listing a total of sixteen studies of mergers). Ashenfelter et al. state that there are twenty merger retrospective studies overall, but they include a number that do not qualify here. Orley C. Ashenfelter et al., *Generating Evidence to Guide Merger Enforcement* 4 (Nat'l Bureau of Econ. Research, Working Paper No. 14798, 2009), *available at* http://www.nber.org/papers/w14798.pdf.

The focus of the present exercise is on the magnitude of the price change resulting from the merger or other horizontal transaction. Given differences in industry, data, time period, and so on, it is essential to impose some uniformity on the effects measures reported in these studies. We do so according to the following protocol:

First and most obviously, if the study reported a single number for the measured effect, that was simply recorded. We take at face value the results of each study that qualifies by the criteria enumerated previously.

Second, if the study reported multiple results due to such factors as alternative model specifications, different levels of aggregation, or a multiplicity of products, I accept any guidance provided by the author as to the most reliable summary estimate(s). But I also strive to identify and record the estimate that best captures the central concern about the transaction, rather than secondary issues.

Third, where multiple results remain, in most cases I simply record them, but with two provisos. Where the estimates are nested, I avoid the duplication of information that would result from retaining both the aggregated and disaggregated levels of estimates. Also, in a few instances (notably, airlines again, and in some petroleum merger studies), clarity is enhanced by a certain amount of aggregation across such factors as control groups, fuel types, or cities and routes. The result of this process is that for each studied merger and similar transaction several estimates of the price may be recorded.

Fourth, from these recorded estimates of the effects of each particular transaction, a summary statistic is created. This summary statistic is the simple average of the estimates derived from the preceding step. Although this average reflects the study's choice of which products to examine, the exclusions and aggregation described in the preceding rule help avoid undue distortions due to that choice.

Fifth, for those mergers and other transactions that have been studied in more than one retrospective, the summary statistics from each retrospective are averaged into a single overall value. That value is taken as the best point estimate of the price effect from the transaction. This rule avoids making judgments about the relative merits of the studies (apart, of course, from meeting the previously described qualifying conditions).[17] By default, it gives each study of a particular transaction equal weight.

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[17] This procedure implicitly relies on the accuracy and objectivity of these studies. Reliance on the peer-review process is an important assurance, as is the fact that a number of mergers have been studied multiple times. While not all studies are equally convincing, alternative criteria that introduced subjectivity were judged more problematic. Two candidate studies were none-

Sixth and finally, for the further purpose of drawing comparisons and making summary observations, it is necessary in several cases to convert reported nominal price changes into percentage terms.[18]

The result of this process is a comprehensive compilation of closely screened results on the price (and other) effects associated with fifty-three distinct horizontal mergers, joint ventures, and code-shares. I next turn to an analysis of those estimated effects.

B. PRICE EFFECTS OF THE TRANSACTIONS

While each of the retrospective studies is informative in its own right, I do not rely on any single study or select group of studies. Such an approach would leave inferences vulnerable to errors or biases in those studies. Rather, my methodology is to combine and summarize the findings from the entire body of literature on the effects of mergers and merger policy. This requires standardizing disparate measures of performance outcomes (as with the protocol just described) in order to perform comparisons across studies. And it requires categorization of relevant characteristics of the mergers in a fashion that reveals broad patterns. Since in the present context I examine the universe of retrospective studies and associated policy, it can also be said to represent the entirety of what the literature contains on this subject.

This methodology is a form of meta-analysis, a technique widely used in several fields in and outside of the social sciences.[19] By employing uniform criteria, imposing a common metric, and avoiding reliance on subsets of studies, meta-analysis can extract the maximum amount of reliable information from an otherwise scattered and diverse body of literature. As will be seen, it is well suited to the present inquiry.

The price estimates—one per transaction—derived from the above procedure are reported in Table 4. The overall average price change for the 53 transactions is a positive 6.04 percent after controlling for all other influences, a result that implies generally adverse competitive effects from these transactions. These effects range from a high of 28.4 percent down to a decrease of 16.3 percent. Of further interest is the split between mergers where prices increased versus those with decreases. Of the 53 price estimates, a total of 40,

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theless eliminated due to basic inconsistencies between their reported statistical results and their stated conclusions.

[18] Most studies provided information about the price level, thus permitting calculation of the percent change due to the transaction, although in a few instances outside information on the level of prices was required. Thanks to Dan Hoskens for supplying the relevant data in one instance.

[19] For detailed discussion of this technique, see MARK W. LIPSEY & DAVID B. WILSON, PRACTICAL META-ANALYSIS (2001).

or 75.5 percent, report postmerger price increases. The average increase is 9.40 percent, ranging from a trivial 0.06 percent up to a high of 28.4 percent. Thirteen transactions (24.5 percent of the total) are found to result in price decreases, which average 4.29 percent and range from 0.04 percent to 16.3 percent in absolute value.

The large proportion of studied mergers with reported price increases prompts the question of whether that proportion—75.5 percent—differs from the purely random outcome of 50 percent. This proposition can be tested using the means proportion test. For 53 price observations, randomness can be rejected at the .0002 level of statistical significance. It may be concluded that studied mergers and other transactions are significantly more likely to report price increases than decreases.[20]

TABLE 4: MEAN PRICE CHANGES

	All Transactions		***Mergers***	
	Price Change	Number of Cases	Price Change	Number of Cases
Overall	6.04%	53	7.29%	46
Increases	9.40%	40	9.85%	38
Decreases	–4.29%	13	–4.83%	8

By itself, this balance of outcomes is of considerable interest. A further useful distinction is that between true mergers and the less thoroughgoing integration represented by joint ventures and airline code-shares. Among the studies of three joint ventures (all in petroleum), two reported price increases while one reported a decrease. The magnitudes are all small, and average a positive 0.43 percent. On the other hand, all four of the studied airline code-sharing arrangements are found to have resulted in price decreases. They range from a negative .04 percent to a negative 7.19 percent, averaging a 4.02 percent decrease. Overall, these seven observations average a 2.18 percent price decrease.

Subtracting out these seven observations from the overall data base brings into sharper focus the estimated price effects of true mergers. Of the 46 true mergers that have been studied, 38 or 82.6 percent are found to result in price increases, whereas only 8 or 17.4 percent yield price reductions. The mean price increase is now 9.85 percent, and the mean decrease 4.83, resulting in an overall price effect from these 46 true mergers equal to 7.29 percent. This difference in the mean price effect from mergers versus that reported above

[20] The modifier "studied" is important here, since as noted before retrospectives tend to be concentrated in interesting, "close call" mergers. Still, the fact that most of those result in price increases is noteworthy.

from joint ventures and code shares—7.29 percent versus 2.18 percent—can be tested to determine whether it is statistically significant. The appropriate test yields a t = 2.51, indicating that the difference is indeed significant. I conclude that joint ventures and code shares—the less thorough structural changes observed in these data in petroleum and airlines, respectively—may produce different results than do mergers.

Two noteworthy categories of these studied mergers are those examined in multiple retrospectives, and also those arising in the same industry. The former represent a methodological check on consistency of the price estimates, while the latter cast light on any industry-specific patterns to these mergers. Regarding mergers studied in multiple retrospectives, there are seven such mergers in the data set. Three of these are airline mergers—Republic/Northwest (studied four times), TWA/Ozark (also studied four times), and USAir/Piedmont (three times). Two studies each were conducted on three different petroleum industry mergers (Tosco/Unocal, Marathon/Ashland, and MAPS/UDS).

Studies made of two of the three airline mergers were unanimous in their finding of a price increase. For the other airline merger (TWA/Ozark), three of the four studies reported a price change in a relatively narrow band around zero, while a fourth study of this merger differs more substantially, finding a large price increase.[21] Multiple studies of the same petroleum industry mergers consistently find modest and similar effects. The two studies of the Marathon/Ashland transaction both find evidence of price increases between 1 and 2 percent. With respect to the MAPS/UDS and Tosco/Unocal mergers, all studies report price changes between a 2.7 percent increase and a 0.5 percent decrease. These are both modest price changes and small study differences.

Noteworthy as well are outcomes for those industries where multiple different transactions have been studied. In the airline industry, for example, 5 of the 9 studied transactions with price estimates conclude that they resulted in price increases. Notably, the only 4 price decreases involved code-sharing arrangements, so that all of the true mergers were found to result in price increases—indeed, rather large increases, averaging 12.5 percent. The results of studies of petroleum industry mergers are more varied. Seven of 10 total transactions report price increases; excluding the joint ventures, the numbers are 5 out of 7. Yet the increases range only as high as 3.84 percent and average just 1.39 percent. In the hospital industry, of the 5 mergers that have been

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[21] Its author comments that the divergence appears to be due to certain differences in the markets and time periods used to develop the estimates. Craig Peters, *Evaluating the Performance of Merger Simulation: Evidence from the U.S. Airline Industry*, 49 J.L. & ECON. 627, 641–42 n.30 (2006).

studied, 4 of the 5 retrospectives report price increases. The average increase is quite large, 20.8 percent.[22]

While these merger samples are neither large nor random, they do suggest that, in the airline and hospital industries, policy at the studied margin may be allowing mergers with adverse competitive effects. On the other hand, in the petroleum industry it appears that studied mergers have quite modest effects. No stronger conclusion is warranted since the studied mergers are not random, and in addition, some of these measured outcomes are conditional on challenges to mergers or the imposition of conditions on their approval.

As previously mentioned, there are 11 estimates of output or market share effects and 4 estimates of quality effects, from these transactions. These data warrant some attention, but they are unfortunately too sparse to comprise a reliable data set on these questions. Of the 11 measured quantity outcomes, 6 are negative and 5 positive. Of those latter 5, 3 represent the code-share agreements, so that only 2 true mergers are found to result in output increases. The non-code-share output effects range from an 8.2 percent decline to an 11 percent increase, and average a slight 0.20 percent increase. Among the 4 estimated quality effects, 3—all from the airline industry—find that quality is reduced after the transaction. The fourth quality measure is from a hospital industry merger, and concludes that quality did not change.

This overview of mergers and similar transactions supports three tentative conclusions. First and perhaps most noteworthy is the fact that three-fourths of all these transactions, and a higher percentage of mergers, are found to result in price increases. One cannot determine from these data whether policy has been too permissive or simply that studied mergers are those with more problematic effects, but it is clear that price increases dominate these cases. Second and also of interest is the fact that studied transactions in the airline and hospital industries overwhelmingly result in price increases, many of them quite large. In contrast, while numerous, petroleum industry mergers less often result in substantial price changes. Finally, we note that studied transactions short of mergers—code-shares and joint ventures—have significantly more favorable price effects than do the more thoroughgoing structural changes represented by true mergers.

IV. AGENCY ACTIONS AND PREMERGER CONDITIONS

The outcomes to the transactions studied in retrospectives are the result in part of prior conditions in the industry as well as any policy actions taken with

[22] Retrospective studies of hospital mergers conducted by the FTC are discussed in Joseph Farrell et al., *Economics at the FTC: Retrospective Merger Analysis with a Focus on Hospitals*, 35 REV. INDUS. ORG. 369 (2009).

respect to the transaction. Accordingly, information on prior conditions and on agency actions is necessary for a comprehensive evaluation of policy. This Part describes those two categories of data and offers some preliminary observations.

A. Data on Conditions and Actions

Relevant premerger information includes the merging parties' market shares, market concentration, entry conditions, and any other product and transaction factors that were arguably employed in the agency's assessment of the merger and its decision whether to challenge it. If challenged, additional information regarding the specific nature of the action taken—e.g., litigation, settlement, remedy, etc.—needs to be compiled. Together with the evidence on price effects from merger retrospectives, these two types of information would permit construction of an "end-to-end" account of each merger and associated policy.

A number of issues arise, however, in compiling information on premerger conditions. The most complete public information exists in cases where mergers or other transactions result in judicial proceedings or consent decrees, both of which disclose facts and competitive concerns from at least the agency's perspective. In some other cases, upon closing investigations, the agencies have released statements describing the industry and the merger, explaining the factual bases for their determination. But in many cases little or no information is forthcoming from the agencies. While public sources—trade press, company press releases, etc.—could be drawn upon, investigation has shown that such information often does not match the products indicated by the agencies as the focus of concern or the markets examined in retrospectives. Accordingly, here I rely solely upon agency sources. Data on premerger conditions are available for sixteen mergers directly from documents and filings of the antitrust agencies.

Other issues arise in the process of categorizing agency decisions and actions. To begin, it is not always possible to determine whether an investigation was conducted at all for the fifty-three transactions in the database. Indeed, explicit confirmation exists for only about one-half of the cases, either because some action was in fact taken or because the agency chose to explain its decision to close an investigation. For each of these transactions, we record the policy option that the agency pursued and the final resolution of the case. These fall into the following categories:

(1) *Opposition*. The merger may be opposed by the agency outright. While normally this assessment would result in a challenge to the merger, our database contains airline and railroad mergers for which either the Department of Transportation or the Surface Transportation Board had at the time ultimate

merger authority. In these cases, while the DOJ may have objected to the mergers for competitive reasons, it had to defer to the other agency for the final decision. These are recorded as being opposed by the antitrust agency.

(2) *Divestiture remedy*. In these cases the merger is allowed to proceed after the merging parties divest certain assets implicated in the competitive concerns. Broadly speaking, divestiture remedies result in the preservation of the same number of independent competitive entities as before the merger. Since they maintain corporate boundaries, they preserve incentives for independent action and for protection of competitively sensitive information and hence are generally viewed as more effective than other remedies.[23] In addition, they are also administratively considerably easier in that, once divestiture has occurred, the agency's job is largely complete.

(3) *Conduct and conditions remedies*. Conduct remedies subject the merged firm to operating rules intended to preserve the competition that would otherwise be jeopardized. These might include firewalls to prevent information exchanges or bans on discrimination or retaliation against rivals. Conditions remedies involve changes to some initial features of the transaction, such as elimination of a non-compete clause that would otherwise burden competition. While heterogeneous in nature, conduct and conditions remedies have as their common element that—in contrast to divestitures—they allow the structural consolidation to proceed. These remedies typically require postmerger monitoring and administration and are often viewed as less effective than divestiture.[24]

(4) *Cleared*. In these cases the merger is approved outright by the relevant antitrust agency.

Detailed information regarding agency decisions and actions has been compiled for all transactions in the database where investigations have been acknowledged. The result is explicit data on agency actions for 25 of the 53 total transactions, with 23 of those 25 being mergers. In other cases, an investigation may have been—indeed, in these cases, likely was—conducted but was closed without action or even confirmation. For some later purposes, I will in fact assume that to be the case, although caution also prompts me to present in

[23] It is, of course, entirely possible for divestiture remedies to be ineffective if they involve only inconsequential aspects of overlapping businesses. For discussion, see Massimo Motta et al., *Merger Remedies in the European Union: An Overview*, 52 ANTITRUST BULL. 603 (2007).

[24] For further discussion of the potential usefulness and possible pitfalls of conduct remedies, see Deborah L. Feinstein, *Conduct Merger Remedies: Tried But Not Tested*, ANTITRUST, Fall 2011, at 5; John E. Kwoka, Jr. & Diana Moss, *Behavioral Merger Remedies: Evaluation and Implications for Antitrust Enforcement*, 57 ANTITRUST BULL. 979 (2012). We also note that conduct/conditions remedies may be appealing policy in cases where the agency review occurs after consummation of the merger since divestiture remedies would be especially disruptive in such cases.

tandem results based only on the more conservative approach of limiting attention to cases known to have been investigated.

B. Analysis of Agency Actions and Prior Conditions

My analysis begins by describing the frequency of various agency actions in response to these mergers and similar transactions. As noted, information on agency actions is available in 25 cases, 23 of which involve true mergers. Table 5 reports the frequency of each agency action for all transactions and separately for true mergers.[25] Out of these 25 total transactions, 8, or 32 percent, were cleared by the agency without any action. For mergers the number is 8 out of 23, or 34.8 percent.

TABLE 5: FREQUENCY OF AGENCY ACTIONS

	All Transactions	***Mergers***
Opposed	5	5
Divestiture	7	6
Conduct/Conditions	5	4
Cleared	8	8
No Information	28	23

Policy in the remaining cases varied considerably. Five mergers were unsuccessfully opposed by the antitrust agency, while another 6 mergers were resolved through structural remedies. In an additional 4 merger cases conduct or conditions remedies were employed. For all transactions, there were 7 examples of structural remedies and another 5 cases in which conduct and conditions remedies were applied.

In sum, we may observe that, of 25 total transactions with recorded outcomes, 12 elicited either structural or conduct/conditions remedies, and a total of 17 were either opposed outright or subject to such remedies. For the 23 true mergers, remedies were imposed in 10 cases, and a total of 15 mergers were either opposed or subject to remedies. These data suggest considerable enforcement activity against competitively problematic mergers and similar transactions. Significant remedies have been imposed in a substantial fraction of studied cases within the discretion of the competition agencies.

A somewhat different perspective emerges by examining the frequency of different policy responses over time. This exercise is aided by organizing the

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[25] In instances where agency actions involved both divestitures and conduct/conditions remedies, the cases are assigned one-half to each category. Given the even number of such cases (4), Table 5 contains only whole number entries.

data systematically into broader categories. The category "Opposed" remains as before, but we now combine cases with divestiture plus conduct/conditions remedies into simply "Remedies." We next sort these cases by the year of transaction: 1980s (including two cases in the late 1970s), 1990s, and 2000s. The results of this procedure are shown in Table 6.

A distinct drift is evident in the frequencies over time. In the 1980s, all studied cases were resolved by either outright opposition or remedies, with opposition the (slightly) more common policy. By contrast, in the past decade, all cases concluded with either clearance or remedies, with clearance the more common resolution. There were literally no studied cases of "no action" in the 1980s and no examples of outright opposition in the 2000s. All this suggests, subject to the caveats noted above, that policy has gradually shifted from a tougher policy posture in the 1980s to one that is more permissive in the past decade.

TABLE 6: AGENCY ACTIONS BY CATEGORY AND DECADE

All Transactions

	Total Cases	1980s	1990s	2000s
Opposed	5	3	2	0
Remedies	12	2	7	3
Cleared	8	0	2	6

Mergers

	Total Cases	1980s	1990s	2000s
Opposed	5	3	2	0
Remedies	10	2	6	2
Cleared	8	0	2	6

This apparent "drift" in Table 6 is statistically significant for the studied mergers. A test of the frequencies of different agency actions by decade yields a chi-squared test statistic of 12.48 both for all transactions and also for mergers only.[26] This value is statistically significant at .014 and confirms that, among studied transactions, agency policy responses over time have changed. Whether this is the result of more permissive antitrust policy or other factors, such as the cumulative effect of adverse court rulings on merger cases, cannot be determined from these data.

[26] The chi-square test checks for the statistical significance of the variation in the frequency of occurrences among the cells in the table. In the present case the test establishes that the higher concentration of merger clearances in the 2000s, for example, is unlike the frequency of that outcome in prior decades.

TABLE 7: PRIOR CONDITIONS BY AGENCY ACTION

	Concentration	***Entry Conditions***
Opposed		Difficult Difficult Difficult Difficult Difficult
Divestiture	High/moderate Moderate/high Moderate/high HHI = 6000 HHI = 8000 CR2 = 80–100% CR2 = 72%	Difficult Difficult Difficult Difficult Difficult Substantial barriers Substantial barriers
Conduct/Conditions	High/moderate HHI = 6090–6350 HHI = 3000 CR2 = 80–100% CR2 = 72%	Difficult Difficult Difficult Difficult Difficult
Cleared		Easy Easy

Next I turn to the relationship between prior conditions in each of these markets and the decision as to whether to act or not, and if so, what form that action should take. Table 7 summarizes the data on market concentration and entry conditions as collected from agency filings and documents. The relative sparseness of these data limits the confidence to be placed in any conclusions, but the following observations nonetheless seem warranted for the studied mergers and suggestive for other mergers:

(1) Mergers that elicited outright opposition by the antitrust agency have been uniformly characterized by entry that was deemed "difficult."

(2) For mergers subject to divestiture requirements, the relevant HHIs were in the range of 6000–8000, and elsewhere described as "high/moderate." In all cases entry was said to be difficult.

(3) For mergers that were subject to conduct or conditions remedies, the numerical HHIs ranged from 3000 to values as high as 6350. Elsewhere concentration was described as "moderate/high," and the two-firm concentration ratio CR2 determined to be 100. In all cases entry was again said to be difficult.

(4) For mergers that were cleared by the agency without action, information from the agencies is limited to the fact that entry was determined to be quite easy.

It seems clear that the association between underlying conditions and the chosen policies is somewhat loose. Two conclusions may nonetheless be supported. First, despite considerable variation it seems that the levels of concentration characterizing studied cases resulting in divestiture are only slightly different from those where conduct remedies are employed. It is not primarily concentration that determines the choice of remedy. Second, despite small numbers of observations, entry conditions would appear to be of critical importance in cases cleared by the agencies.[27]

C. Analysis of Agency Actions and Price Outcomes

We now examine the relationship between the policy actions taken toward these mergers and their price outcomes as assessed by the corresponding merger retrospectives. We recall that the mean change in the parties' prices for all of transactions is an increase of 6.04 percent, and for true mergers, 7.29 percent. Table 8 tabulates these price outcomes according to the five policy categories.[28] One immediately striking fact is that price increases characterize merger outcomes in all cases, regardless of the policy action taken. That said, it is also apparent that the outcomes vary considerably by the type of policy action. Transactions opposed outright by the antitrust agencies are found to average a 1.86 percent price increase. Those subject to divestiture result in a price increase of 6.66 percent (7.68 percent for mergers), while those prompting conduct or conditions remedies have substantially larger price increases—12.82 percent for all transactions, 16.01 for true mergers. Notably, transactions that were cleared outright are found to result in price increases averaging 7.40 percent, little different from the most effective remedy, divestiture.[29]

TABLE 8: PRICE OUTCOMES BY AGENCY ACTION

	All Transactions	*Mergers*
Opposed	1.86%	1.86%
Divestiture	6.66%	7.68%
Conduct/Conditions	12.82%	16.01%
Cleared	7.40%	7.40%
No Information	5.04%	6.82%

[27] This corroborates data concerning agency actions previously reviewed in Part II.

[28] As before, where a transaction involved both a structural and a conduct or conditions remedy, the price outcome was assigned to both policy categories with a weight of one-half in each.

[29] In a couple of cases, remedies were imposed well after the merger and the retrospective. The implications of this timing issue for my analysis are discussed below.

These data suggest a number of tentative conclusions. For one, the modest postmerger price changes found in the case of mergers opposed outright by the antitrust agencies (but ultimately permitted) suggest either errors by the antitrust agency in their opposition or effective control of the merger by some other agency. With respect to the other policies, it would appear that neither divestiture nor conduct/conditions remedies are especially effective in preserving competition, since neither prevents significant postmerger price increases in the studied transactions. Moreover, as between the two policies, conduct and conditions remedies appear substantially less effective, with price increases twice as large as those under divestiture.[30]

Finally, cases where the agency has taken no action whatsoever—and to a lesser degree, where there is no information concerning agency action—also appear to result in nontrivial price increases. Cleared mergers and other transactions result in price increases exceeding 7 percent, while those for which information is lacking average somewhat smaller, but still nontrivial. increases. Collectively, these results suggest that merger control in these studied cases may overall be too permissive, that the remedies chosen may be inadequate to the task of preserving competition, and that conduct and conditions remedies may be especially ineffective. As before, however, these conclusions are conditional on the set of transactions that have been subject to retrospective study.

D. Analysis of Competitive Problems and Agency Actions

Finally, I analyze the relationship between the magnitude of the competitive problem with a merger and the policy chosen to address it. To do this, the above data on remedies and price outcomes ideally should be tabulated according to the magnitude of each transaction's threatened (i.e., prospective) price increase. Then, we should expect to see tougher remedies imposed where that threat is greatest, and price brought back to the competitive norm after the fact. Where the threat is correspondingly smaller or absent, remedies should be less tough but still sufficient to preserve or restore competitive price.

In fact, I do not have sufficient information on conditions and concerns prior to each transaction to measure the threatened price increase, but I nonetheless can draw inferences as follows: Suppose that remedies are correctly matched so that transactions posing the greatest threat would have the toughest remedies imposed, and those remedies are tough enough to negate the threatened increase. Similarly, transactions posing a lesser threat would

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30 As previously noted, conduct and conditions remedies represent a varied group of nonstructural approaches. Though their numbers are small, "conditions" cases are associated with smaller price increases than conduct remedies.

have correspondingly weaker remedies but still sufficient to result in competitive prices. And transactions viewed as benign would have no remedies but again, prices would be at the competitive norm. Thus I would expect post-transaction price changes to be the roughly same for all categories of remedies. This proposition for effective merger control can be tested with our data.

The top panel of Table 9 presents the frequency of occurrence of cases of post-transaction price increases by their magnitude, against the nature of agency action with respect to each transaction. The magnitudes are grouped into four categories—greater than 10 percent, between 5 and 10 percent, less than 5 percent, and less than 0—as measured by the retrospective study of each transaction. Rows (a) and (b) report the frequency of the 20 transactions for which there is explicit information about the agency action.[31] As can be seen, in 5 of the 7 total cases with large ex post price increases, remedies—either structural or conduct/conditions—were imposed. For the 2 transactions resulting in price decreases, no agency action was taken in one, and a quite weak remedy involving conditions was applied in the other.

TABLE 9: AGENCY ACTION AND PRICE OUTCOMES

All Transactions

	Price Outcomes			
Agency Action	Decrease	0–5%	5–10%	10%+
a) None	1	1	4	2
b) Remedies	1	5	1	5
c) None/No Info	11	9	7	9

Mergers

	Price Outcomes			
Agency Action	Decrease	0–5%	5–10%	10%+
a) None	1	1	4	2
b) Remedies	0	4	1	5
c) None/No Info	7	9	7	8

Three observations follow from this tabulation. First, these results suggest that the agencies can generally distinguish the most from the least problematic mergers, correctly imposing tougher remedies against the former and more often clearing the latter. Second, although the agencies took action against the most problematic transactions, it would appear that those actions were insuffi-

[31] Cases of outright agency opposition are excluded since these involved final determination and possible action by a regulatory agency.

cient, since post-transaction prices nonetheless rose—indeed, by more than 10 percent. Finally, for transactions resulting in intermediate degrees of price change, that is, from 0 to 10 percent, there is no distinct pattern of agency action. There are 11 transactions in this range, with no action taken in 5 cases and structural or conduct/conditions remedies imposed in 6, most of the latter where the price increases were more modest.

Row (c) of the top panel of Table 9 reports the frequency of transactions with various price outcomes for transactions where either the agency indicated it was taking no action or where an investigation, while not acknowledged, likely occurred. Treating both as cases of "cleared" mergers permits a further comparison with all cases where remedies were imposed (and which are necessarily acknowledged), that is, Row (b). Now 5 out of 14 cases with large price increases were subject to remedies, whereas 11 of the 12 transactions resulting in price decreases were (correctly) cleared. We can again use statistical methods to test for the significance of this higher frequency of actions for problematic cases relative to cases resulting in price decreases. The two-sample means proportion test indicates that the difference is statistically significant at 4.9 percent. This result supports the proposition that agency actions are appropriately tailored to the magnitude of the underlying price problems.

Much the same conclusion emerges from analysis of true mergers. As shown in Rows (a) and (b) of the lower panel of Table 9, 5 of 7 mergers resulting in large price increases again triggered agency actions involving structural or conduct remedies, whereas the agencies took no acknowledged action in the sole merger with a price decrease. Intermediate cases of price increase were again associated with a mixed pattern of agency responses.

As before, Rows (b) and (c) broaden the comparison to cases where no investigation was acknowledged. Now 5 out of 13 total cases of large price increases were subject to remedies, but none of the 7 resulting in price decreases was subject to agency action. Again employing the means proportion test, this latter difference in probabilities is statistically significant at 2.9 percent.[32] I again conclude that there is good indication that stronger agency actions are taken where competitive problems are more serious, but those actions were often ultimately inadequate. Moreover, there is considerable evidence of errors both of omission and commission.

These inferences are subject to various qualifications and caveats. I have already noted characteristics of the studied cases and of measured outcomes that invite disproportionate attention. In addition, for mergers that proceeded subject to divestiture or conduct/conditions remedies, observed outcomes are

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[32] The means proportion test cannot be conducted on the difference between Rows (a) and (b), since the former has only one observation for the case of price decreases.

conditional on the actions taken. As noted here, however, the finding of post-merger price increases counters this possible bias since that bias should diminish, not increase, the effect in the outcome data. Moreover, for mergers eliciting no agency action, the actual outcomes are not conditional on actions, but even those cases raise concern about selection bias. And finally, three cases involve agency actions subsequent to the merger, confounding the timeline of causation.[33]

V. CONCLUSION

The analysis in this article has combined results from the growing body of merger retrospectives with information about policy actions of the antitrust agencies. The intent has been to draw inferences about the outcomes of mergers and similar horizontal transactions, and the methods and results of policy actions taken by the agencies. The evidence reveals substantial frequency of cases where the agencies take actions and impose either structural or conduct/conditions remedies, although that frequency has declined over time. Moreover, there is evidence that agencies are capable on average of correctly distinguishing cases that do not threaten competitive harm from those that do. Yet I find much variation and error in that process, so that while some benign transactions are challenged, others—indeed, more—seem to be permitted despite competitive problems.

Perhaps even more significantly, I find that the remedies imposed—divestiture and conduct or conditions remedies—are not generally adequate to the task of preserving competition. Price increases persist in the face of these remedies, and more so in cases where non-structural conduct or conditions remedies are employed. These results indicate that stronger policy measures—outright opposition or structural remedies instead of conduct/conditions approaches—may be warranted in cases where they are not presently employed.

I caution that the number of observations is not especially large, classifications are sometimes difficult, the data have other limitations, and selection issues abound. These considerations argue for continuing research into these questions, but the present results underscore the importance of this exercise to proper formulation of antitrust policy.

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[33] Excluding these cases does not alter conclusions, although the numbers of observations on which the conclusions are based are further diminished. To the degree that any of these cases were prompted by ex post evaluations, of course, they demonstrate the value of retrospectives in policy formulation and analysis.

APPENDIX

TABLE A1: CHRONOLOGICAL LIST OF MERGERS IN DATABASE

YEAR	FIRM 1	FIRM 2	INDUSTRY	TRANSACTION TYPE	REVIEWING AGENCY	AGENCY ACTION	REMEDY	SOURCE(S)*
1976	Scott Graphics	Xidex	Microfilm	Merger	FTC	Ex Post Consent	Structure, Conduct	Barton & Sherman 1984
1979	Kalvar Corporation	Xidex	Microfilm	Merger	FTC	Ex Post Consent	Structure, Conduct	Barton & Sherman 1984
1980	Weyerhaeuser Co.	Menasha Corporation	Corrugating medium	Merger	FTC	Opposed	Overruled	Schumann et al. 1992
1983	SCM Corp	Gulf & Western	Titanium dioxide	Merger	FTC			Schumann et al. 1992
1985	Lone Star Industries	Kaiser Cement	Cement	Merger				Schumann et al. 1992
1986	Northwest	Republic Airlines	Airlines	Merger	DOJ	Opposed	Overruled	Peters 2006 Morrison 1996 Borenstein 1990 Werden et al. 1991
1986	Ozark	Trans World Airlines Inc.	Airlines	Merger	DOJ	Opposed	Overruled	Peters 2006 Morrison 1996 Borenstein 1990 Werden et al. 1991
1987	Continental Airlines	People Express	Airlines	Merger	DOJ			Peters 2006
1987	Delta	Western	Airlines	Merger	DOJ			Peters 2006
1987	USAir	Piedmont	Airlines	Merger	DOJ			Kwoka & Shumilkina 2010 Peters 2006 Morrison 1996
1990	Dominican Santa Cruz Hospital	AMI-Community Hospital	Hospitals	Merger	FTC	Ex Post Consent	Conduct	Vita & Sacher 2001
1990	Wolters Kluwer	Lippincott	Scientific journal	Merger	DOJ			McCabe 2002
1991	Reed Elsevier	Pergamon	Scientific journal	Merger	DOJ			McCabe 2002
1994	Continental	America West	Airlines	Codeshare	DOJ			Bamberger et al. 2004
1994	Northwest	Alaska	Airlines	Codeshare	DOJ			Bamberger et al. 2004
1995	Burlington Northern	Santa Fe	Rail	Merger	DOJ	Opposed	Overruled	Winston et al. 2011
1995	Thomson	Shepard	Law journal	Merger				McCabe 2004
1995	Wolters Kluwer	CCH	Law journal	Merger				McCabe 2004
1996	Reed Elsevier	West	Law journal	Merger				McCabe 2004

YEAR	FIRM 1	FIRM 2	INDUSTRY	TRANSACTION TYPE	REVIEWING AGENCY	AGENCY ACTION	REMEDY	SOURCE(S)*
1996	Thomson	West	Law journal	Merger	DOJ	Consent	Structure	McCabe 2004
1996	Wolters Kluwer	Little Brown	Law journal	Merger				McCabe 2004
1996	Union Pacific	Southern Pacific	Rail	Merger	DOJ	Opposed	Overruled	Winston et al. 2011 Karikari et al. 2002
1997	Aurora Foods	Kraft	Breakfast syrup	Merger				Ashenfelter & Hosken 2008
1997	General Mills	Ralcorp (Chex)	Ready-to-eat cereal	Merger	FTC	Consent	Conditions	Ashenfelter & Hosken 2008
1997	Guinness	Grand Metropolitan	Spirits[1]	Merger	FTC	Consent	Structure	Ashenfelter & Hosken 2008
1997	Proctor and Gamble	Tambrands	Feminine hygiene	Merger				Ashenfelter & Hosken 2008
1997	Tosco	Unocal	Petroleum	Merger	FTC			Hosken et al. 2011 GAO 2004
1997	UDS	Total	Petroleum	Merger	FTC			GAO 2004
1997	Wolters Kluwer	Thomson	Scientific journal	Merger	DOJ			McCabe 2002
1998	BP	Amoco	Petroleum	Merger	FTC	Consent	Structure, Conduct	GAO 2004
1998	Harcourt	Churchill Livingstone	Scientific journal	Merger	DOJ			McCabe 2002
1998	Marathon	Ashland	Petroleum	Joint venture	FTC			Taylor & Hosken 2007 GAO 2004
1998	New Hanover Regional Medical Center	Columbia Cape Fear Hospital	Hospitals	Merger	FTC			Thompson 2011
1998	Pennzoil	Quaker State	Conventional motor oil	Merger				Ashenfelter & Hosken 2008
1998	Reed Elsevier	Matthews Bender	Law journal	Merger				McCabe 2004
1998	Shell	Texaco I	Petroleum	Joint venture	FTC			GAO 2004
1998	Shell	Texaco II	Petroleum	Joint venture	FTC	Consent	Structure	GAO 2004
1999	Fleet	BankBoston	Banking	Merger	DOJ	Consent	Structure	Calomiris & Pornrojnangkool 2005
1999	Marathon Ashland Petroleum	Ultramar Diamond Shamrock	Petroleum	Merger	FTC			Simpson & Taylor 2008 GAO 2004
1999	Continental	Northwest	Airlines	Codeshare	DOJ			Armantier & Richard 2006
1999	Sutter	Summit	Hospitals	Merger	FTC	None		Tenn 2011
1999	Exxon	Mobil	Petroleum	Merger	FTC	Consent	Structure	GAO 2004

YEAR	FIRM 1	FIRM 2	INDUSTRY	TRANSACTION TYPE	REVIEWING AGENCY	AGENCY ACTION	REMEDY	SOURCE(S)*
2000	Evanston Northwestern Health Care	Highland Park Hospital	Hospitals	Merger	FTC	Ex Post Consent	Conduct	Haas-Wilson & Garmon 2009 Romano & Balan 2011
2000	Provena St. Therese Medical Center	Victory Memorial Hospital	Hospitals	Merger	FTC	None		Haas-Wilson & Garmon 2009
2003	Delta	Northwest, Continental	Airlines	Codeshare	DOJ	Consent	Conditions	Gayle 2008
2004	Sunoco	El Paso's Eagle Point refinery	Petroleum	Merger	FTC	None		Silvia & Taylor 2010
2005	Valero	Premcor	Petroleum	Merger	FTC			Silvia & Taylor 2010
2005	America West	USAir	Airlines	Merger	DOJ	None		Bilotkach 2011
2006	Maytag	Whirlpool	Home appli-ances[2]	Merger	DOJ	None		Ashenfelter et al. 2011

* See Table 2A for full citations of studies used in merger database.

[1] Merger involved two products—scotch and gin.

[2] Merger involved four products—clothes washers, clothes dryers, dishwashers, and refrigerators.

TABLE A2: STUDIES CITED AND USED TO CREATE MERGER RETROSPECTIVE DATABASE

Olivier Armantier & Oliver Richard, *Evidence on Pricing from the Continental Airlines and Northwest Airlines Code-Share Agreement*, *in* 1 ADVANCES IN AIRLINE ECONOMICS: COMPETITION POLICY AND ANTITRUST 91 (Darin Lee ed., 2006).

Orley C. Ashenfelter, Daniel S. Hosken & Matthew C. Weinberg, *The Price Effects of a Large Merger of Manufacturers: A Case Study of Maytag-Whirlpool* (Nat'l Bureau of Econ. Research, Working Paper No. 17476, 2011).

Orley Ashenfelter & Daniel Hosken, *The Effect of Mergers on Consumer Prices: Evidence from Five Selected Case Studies* (Nat'l Bureau of Econ. Research, Working Paper No. 13859, 2008).

Gustavo E. Bamberger, Dennis W. Carlton & Lynette R. Neumann, *An Empirical Investigation of the Competitive Effects of Domestic Airline Alliances*, 47 J.L. & ECON. 195 (2004).

David M. Barton & Roger Sherman, *The Price and Profit Effects of Horizontal Mergers: A Case Study*, 33 J. INDUS. ECON. 165 (1984).

Volodymyr Bilotkach, *Multimarket Contact and Intensity of Competition: Evidence from an Airline Merger*, 38 REV. INDUS. ORG. 95 (2011).

Severin Borenstein, *Airline Mergers, Airport Dominance, and Market Power*, 80 AM. ECON. REV. PAPERS & PROCEEDINGS 400 (1990).

Charles W. Calomiris & Thanavut Pornrojnangkool, *Monopoly-Creating Bank Consolidation? The Merger of Fleet and BankBoston* (Nat'l Bureau of Econ. Research, Working Paper No. 11351, 2005).

Philip G. Gayle, *An Empirical Analysis of the Competitive Effects of the Delta/Continental/Northwest Code-Share Alliance*, 51 J.L. & ECON. 743 (2008).

Deborah Haas-Wilson & Christopher Garmon, *Two Hospital Mergers on Chicago's North Shore: A Retrospective Study* (Fed. Trade Comm'n Bureau of Econ. Working Paper No. 294, 2009).

Daniel Hosken, Louis Silvia & Christopher Taylor, *Does Concentration Matter? Measurement of Petroleum Merger Price Effects*, 101 AM. ECON. REV. 45 (2011).

John A. Karikari, Stephen M. Brown & Mehrzad Nadji, *The Union Pacific/Southern Pacific Railroads Merger: Effect of Trackage Rights on Rates*, 22 J. REG. ECON. 271 (2002).

John Kwoka & Evgenia Shumilkina, *The Price Effect of Eliminating Potential Competition: Evidence from an Airline Merger*, 58 J. INDUS. ECON. 767 (2010).

Mark J. McCabe, *Law Serials Pricing and Mergers: A Portfolio Approach*, CONTRIBUTIONS TO ECON. ANALYSIS & POL'Y, Vol. 3, No. 1, Art. 18 (2004).

Mark J. McCabe, *Journal Pricing and Mergers: A Portfolio Approach*, 92 AM. ECON. REV. 259 (2002).

Steven A. Morrison, *Airline Mergers: A Longer View*, 30 J. TRANSP. ECON. & POL'Y 237 (1996).

Craig Peters, *Evaluating the Performance of Merger Simulation: Evidence from the U.S. Airline Industry*, 49 J.L. & ECON. 627 (2006).

Patrick S. Romano & David J. Balan, *A Retrospective Analysis of the Clinical Quality Effects of the Acquisition of Highland Park Hospital by Evanston Northwestern Healthcare*, 18 INT'L J. ECON. BUS. 45 (2011).

LAURENCE SCHUMANN, ROBERT P. ROGERS & JAMES D. REITZES, CASE STUDIES OF THE PRICE EFFECTS OF HORIZONTAL MERGERS (Fed. Trade Comm'n Report, 1992).

John Simpson & Christopher Taylor, *Do Gasoline Mergers Affect Consumer Prices? The Marathon Ashland Petroleum and Ultramar Diamond Shamrock Transaction*, 51 J.L. & ECON. 135 (2008).

Christopher T. Taylor & Daniel S. Hosken, *The Economic Effects of the Marathon-Ashland Joint Venture: The Importance of Industry Supply Shocks and Vertical Market Structure*, 55 J. INDUS. ECON. 419 (2007).

Louis Silvia & Christopher T. Taylor, *Petroleum Mergers and Competition in the Northeast United States* (Fed. Trade Comm'n Bureau of Econ. Working Paper No. 300, 2010).

Steven Tenn, *The Price Effects of Hospital Mergers: A Case Study of the Sutter-Summit Transaction*, 18 INT'L J. ECON. BUS. 65 (2011).

Aileen Thompson, *The Effect of Hospital Mergers on Inpatient Prices: A Case Study of the New Hanover-Cape Fear Transaction*, 18 INT'L J. ECON. BUS. 91 (2011).

U.S. GAO, ENERGY MARKETS: EFFECTS OF MERGERS AND MARKET CONCENTRATION IN THE U.S. PETROLEUM INDUSTRY (2004).

Michael G. Vita & Seth Sacher, *The Competitive Effects of Not-for-Profit Hospital Mergers: A Case Study*, 49 J. INDUS. ECON. 63 (2001).

Gregory J. Werden, Andrew S. Joskow & Richard L. Johnson, *The Effects of Mergers on Price and Output: Two Case Studies from the Airline Industry*, 12 MANAGERIAL & DECISION ECON. 341 (1991).

Clifford Winston, Vikram Maheshri & Scott M. Dennis, *Long-Run Effects of Mergers: The Case of U.S. Western Railroads*, 54 J.L. & ECON. 275 (2011).

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FCC LPTV licensees already have a statutory relationship with the Comcast-Time Warner merger partners related to "must-carry" and "leased access" carriage.

We request that the Comcast-Time Warner merger partners provide to the FCC a comprehensive accounting of:

- How many LPTV stations they currently carry,
- Which markets they carry them within, and
- The terms of these arrangements, such as must-carry, leased access, or retransmission consent.

The FCC needs to request from each of the merger participants' two key data points related to "civic content".

- This is the E&G of the PEG cable channels across the country.
- The reason this is important data to gather is that our Coalition has first-hand experience in hearing from local government agencies and local LPTV operators that local cable franchise agreements are being used to prevent LPTV stations from airing education and government content created within the PEG systems.
- In so much that in many communities cable carriage is less than 50% of the local households, and local community funds are being used to produce this local civic and education programming, it is not reasonable at all for cable MVPD to demand that local jurisdictions not allow LPTV stations from airing local civic and education content.

We ask the FCC to have the merger partners provide their local franchise agreements for review.

- This is to see if any "negative covenants" are within them that would prohibit LPTV and other local broadcasters from airing local civic and education content produced and aired by the PEG groups.
- This request does not include the P of the PEG, the public content, believe that this data may actually show "transactional harm" to LPTV.

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September 29, 2014

Via ECFS

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Ex Parte Email Regarding GN Docket No. 12-268, MB Docket No. 14-57 & MB Docket No. 14-90

Dear Ms. Dortch:

The LPTV Spectrum Rights Coalition, (the "Coalition"), represents a diverse group of over 155 FCC LPTV licensees with more than 1000 built /licensed LPTV stations, and new construction permits, in most all 50 states, DC, and Puerto Rico. We also have as members numerous programing networks and professional service providers to the LPTV industry. Our members provide 100s of diverse, local, and national channels reaching more than 75+ million viewers. Within the Incentive Spectrum Auction National Proposed Rule Making (page 119), in response to the Auction Act itself, the FCC asks,

> *"We invite comment on measures that the Commission might take outside of the context of the multiple ownership rules to address any impact on diversity that may result from the incentive auction….We envision that such measures might include ways to encourage multicasting opportunities or other alternative means of program delivery that could help to ensure that consumers will continue to have access to specialized or minority-oriented programming post- auction."*

With the above in mind, we ask that within both the Comcast-Time Warner-Charter, and AT&T-Direct TV mergers, that the FCC ask from each of the participants, for a comprehensive accounting of how many LPTV stations they currently carry, which markets they carry them within, and the terms of these arrangements, such as must-carry, leased access, or retransmission consent.

If the FCC is to comply with the intent of Congress in regards to the Incentive Spectrum Auction, it needs to investigate how the MVPD industry in total, as well as these mergers, are currently integrating local and diverse content into their line-up's and at what costs. This will give the FCC the needed data points it requires to ascertain whether or not there should be further LPTV accommodation with the Auction and repacking process for the local and national diverse content networks which air on LPTV. This is especially important since Comcast, in its' September 23, 2014 Reply Comments in the MB-14-57 Docket, on page 321 says:

> *"Comcast is free to enter into retransmission consent deals with some LPTV stations and not others based on its editorial discretion and business judgment…"*

While Comcast may have the right to make editorial, or First Amendment choices about which content it airs on its' systems, our Coalition believes it is abusing the leased access rules by offering zero-cost rates to some LPTV stations, and standard rates to others. This is why we ask for the terms of all leased access contracts and retransmission consent contracts for LPTV stations.

In addition, the FCC needs to request from each of the merger participants' two key data points in regards to "civic content". This is the E&G of the PEG cable channels across the country. The reason this is important data to gather is that our Coalition has first-hand experience in hearing from local government agencies and local LPTV operators that local cable franchise agreements are being used to prevent LPTV stations from airing education and government content created within the PEG systems. In so much that in many communities cable carriage is less than 50% of the local households, and local community funds are being used to produce this local civic and education programming, it is not reasonable at all for cable MVPD to demand that local jurisdictions not allow LPTV stations from airing local civic and education content.

We ask the FCC have each of the cable MVPD in these mergers provide their local franchise agreements for review to see if any negative covenants are within them which would prohibit LPTV and other local broadcasters from airing local civic and education content produced and aired by the PEG groups. This request does not include the P of the PEG, the public content, as that is private and not funded from taxpayer funds or rights of way fees. And we believe that this data may actually show "transactional harm" to LPTV.

And finally, we ask that in the case of the AT&T-Direct TV merger, that the FCC request from Direct TV how it determines which LPTV stations are included in their local databases which are part of the customer premise equipment they provide. LPTV operators all across the country are reporting that Direct TV does not list within the databases in the equipment they provide all of the local LPTV stations. This is a no-cost activity, and one that LPTV operators are reporting that DISH TV does do.

Respectfully submitted,

Mike Gravino
Director
LPTV Spectrum Rights Coalition
_________/S/_______