

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of: )  
XM Satellite Radio Holdings Inc., )  
                                  *Transferor* )  
                                  ) )  
and ) )  
                                  ) )  
Sirius Satellite Radio Inc., )  
                                  *Transferee* )  
                                  ) )  
Applications for Consent to the Transfer )  
of Control of Licenses, XM Satellite Radio )  
Holdings Inc. to Sirius Satellite Radio Inc., )  
as Amended )

MB Docket No. 07-57

**RESPONSE OF THE CONSUMER COALITION FOR  
COMPETITION IN SATELLITE RADIO**

In further opposition to the applications for authority to transfer control (the “Applications”) filed by XM Satellite Radio Holdings Inc. (“XM”) and Sirius Satellite Radio Inc. (“Sirius”),<sup>1</sup> the Consumer Coalition for Competition in Satellite Radio (“C3SR”),<sup>2</sup> by its attorneys, pursuant to Public Notice DA 07-2417,<sup>3</sup> hereby submits this response to the Comments and Petitions to Deny filed on or about July 9, 2007 in the above-captioned proceeding. C3SR’s opposition to this merger does not stand alone. Many other interested

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<sup>1</sup> *Applications of XM Satellite Radio Holdings Inc., Transferor, and Sirius Satellite Radio Inc., Transferee, For Consent to Transfer Control* (filed March 20, 2007).

<sup>2</sup> C3SR is an independent, not-for-profit corporation organized under the laws of the District of Columbia, and has received financial support from the National Association of Broadcasters (“NAB”). The purpose of C3SR is to promote the interests of satellite radio subscribers in opposition to the proposed merger of Sirius and XM.

<sup>3</sup> *Sirius Satellite Radio Inc. and XM Satellite Radio Holdings Inc. Seek Approval to Transfer Control of FCC Authorizations and Licenses*, DA 07-2417 (released June 8, 2007).

parties have advanced sound arguments why the proposed merger is contrary to the public interest and inconsistent with the fundamental policy objectives adopted by the Commission for the satellite digital audio radio service (“SDARS”).<sup>4</sup>

In addition to the direct adverse impacts on consumers described in C3SR’s Petition, many other petitioners or commenting parties have voiced significant concerns about the effect of the proposed merger on competition and diversity, resulting in other direct and indirect adverse impacts on consumers.<sup>5</sup> For example, the National Association of Black-Owned Broadcasters, Entravision Holdings, LLC, the Asian American Justice Center, and the American Women in Radio and Television have each voiced their separate concerns about the merger’s adverse impact on participation by African-Americans, Hispanics, Asians and women, respectively, in the satellite radio industry.<sup>6</sup> Moreover, National Public Radio (“NPR”), a significant programmer on satellite radio, has opposed the merger because of its adverse impact on diversity to the detriment of independent SDARS program producers including NPR and its member stations.<sup>7</sup>

In stark contrast, a few parties have attempted to support the merger with arguments of reverse polarity – not that the merger is in the public interest, but that antitrust law

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<sup>4</sup> See, e.g., Petition to Deny of Common Cause, Consumer Federation of America, Consumers Union and Free Press (collectively the “Joint Consumer Parties” and the “Joint Consumer Petition”); Petition to Deny of National Public Radio, Inc. (“NPR Petition”); Petition to Deny of the National Association of Black-Owned Broadcasters, Inc. (“NABOB Petition”); Petition to Deny of American Women in Radio and Television, Inc. (“AWRT Petition”); Comments of Entravision Holdings, LLC (“Entravision Comments”); Petition to Deny of the National Association of Broadcasters (“NAB Petition”); Joint Petition to Deny of Forty-Six Broadcasting Organizations (“Joint Broadcaster Petition”); Comments of the Asian American Justice Center (“AAJC Comments”).

<sup>5</sup> Petition to Deny of Consumer Coalition for Competition in Satellite Radio (“C3SR Petition”).

<sup>6</sup> See NABOB Petition, *supra* note 4; Entravision Comments, *supra* note 4; AWRT Petition, *supra* note 4; AAJC Comments, *supra* note 4.

<sup>7</sup> NPR Petition, *supra* note 4, at 3-7.

is contrary to the public interest.<sup>8</sup> Other parties have supported the merger based on proposals to share in some apportionment of the monopoly rents, as described by Professor Sidak in his Supplemental Declaration.<sup>9</sup> All the commenting parties in support of the merger have assumed the nebulous market definitions proposed by the Merger Parties to be valid and appropriate without empirical support. Indeed, most commenting parties in support of the merger do not address this critically-important issue at all.<sup>10</sup> Moreover, no commenting party has offered any compelling public interest justification for the creation of an SDARS monopoly.

In reality, the proposed expansive market definitions are nothing more than a ploy by the Merger Parties “to disguise the elephant in the room by knocking down the walls.”<sup>11</sup> Indeed, the best way to evade antitrust scrutiny is to disguise the concentration and market power with an overly-broad market definition. As pointed out by numerous commenting parties, if all the existing “walls” (which define distinct product markets) were to magically disappear by definitional fiat, the Commission would be hard pressed to justify its media ownership

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<sup>8</sup> See, e.g., Comments of the Competitive Enterprise Institute (“CEI Comments”).

<sup>9</sup> Supplemental Declaration of J. Gregory Sidak at 4-5 (July 9, 2007) (“Sidak Supplemental Declaration”); see, e.g., Comments of Public Knowledge (“Public Knowledge Comments”) (seeking specific merger concessions); Petition to Deny of the Telecommunications Advocacy Project (“TAP Petition”) (seeking a divestiture of spectrum with earmarked use); Comments of Loral Space and Communications (“Loral Comments”) (stating a belief the merger will stimulate demand for satellites); Comments of the Recording Industry Association of America (“RIAA Comments”) (seeking additional copyright royalty compensation). See also Letter from Hilary O. Shelton, Director, National Association for the Advancement of Colored People, Washington Bureau, to FCC Chairman Martin and Commissioners Copps, Adelstein, Tate, and McDowell (June 20, 2007) (“NAACP-DC Letter”). Shortly after the NAACP-DC Letter, assurances that XM will remain located in Washington, DC were given by Mr. Karmazin in an interview with the Washington Times. See <http://washingtontimes.com/article/20070628/BUSINESS/106280029&SearchID=73285539280038>.

<sup>10</sup> See, e.g., Public Knowledge Comments, *supra* note 9, at 1 (support of the proposed merger is conditioned upon the proposed merger withstanding antitrust analysis).

<sup>11</sup> See Entravision Comments, *supra* note 4, at 1; cf. CEI Comments, *supra* note 8 (referring to the Commission’s spectrum policy as the elephant in the room). Elephants notwithstanding, there is no justification to deviate from the Commission’s longstanding policy against spectrum monopolies, a policy which is entirely consistent with the aims of the relevant antitrust laws.

restrictions.<sup>12</sup> The significant outcry of opposition from Congress in response to this merger proposal should be instructive. Congress would never sanction the notion of single-firm intramodal monopolies in mass media, such as a single firm owning all of the AM or FM radio stations in the nation. So, it should be equally obvious that a satellite radio monopoly created in violation of the antitrust laws would be *prima facie* inconsistent with the public interest standard of the Communications Act.

Antitrust law remains a sound and essential part of the Commission's public interest review of merger applications.<sup>13</sup> Therefore, the issue of market definition remains of key importance. The ultimate issue in defining the relevant market is whether there is any substitute for SDARS that would have the effect of disciplining SDARS prices in the aftermath of the proposed merger. The Merger Parties must prove that at least some of the component parts of their expansive market definition would accomplish this. The Merger Parties have provided statements by two consulting economists in support of the expansive market definition, but neither expert has provided any empirical economic analysis demonstrating that any segment of the market will have sufficient strength to discipline the price of SDARS.<sup>14</sup>

It is entirely unclear whether the Merger Parties are abandoning the market definition in the original transfer application (everything audio), as championed by Professor

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<sup>12</sup> The National Association of Black-Owned Broadcasters, who have been actively involved in the FCC's Media Ownership Proceeding, note that if this merger is approved, it will be used by other media companies to justify further deregulation and consolidation of the broadcast industry. See NABOB Petition, *supra* note 4, at 12-13. See also Joint Consumer Petition, *supra* note 4, at 55.

<sup>13</sup> See, e.g., Application of EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation, Hearing Designation Order, 17 FCC Rcd 20559, paras. 104-174 (2002) (applying United States Department of Justice and Federal Trade Commission Horizontal Merger Guidelines) ("EchoStar-DirecTV Order").

<sup>14</sup> Commenting parties such as Edwin Meese, III and James L. Gattuso, merely parrot back the unsupported assertions of the Merger Parties.

Hazlett. An alternative definition (“fixed and mobile communications services”) was subsequently advanced by Dr. Harold Furchtgott-Roth in a submission which amended the Application.<sup>15</sup> Either way, the submissions of Professor J. Gregory Sidak in this proceeding make clear that there is no justification for reliance on such broad definitions, and there is substantial evidence to reject them both. Professor Sidak’s Second Supplemental Declaration, incorporated herein by reference and attached hereto as Exhibit A, highlights the flaws in both approaches (Hazlett’s and Furchtgott-Roth’s). While there is much speculation about post-merger consumer behavior in the event of an SDARS subscription price increase,<sup>16</sup> none of the commenting parties offer any meaningful empirical support for their conclusions that sufficient post-merger competition from other audio services will discipline the pricing of SDARS, post-merger.

Many other petitioners and commenting parties have provided the Commission with compelling reasons to reject the proposed market definitions.<sup>17</sup> SDARS is the only service that offers “national, mobile, programmed radio entertainment.”<sup>18</sup> The nationwide availability,

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<sup>15</sup> See generally Thomas W. Hazlett, *The Economics of the Satellite Radio Merger* (June 14, 2007) (“Hazlett Review”); Harold Furchtgott-Roth, *An Economic Review of the Proposed Merger of XM and Sirius* (June 2007) (“Furchtgott-Roth Review”).

<sup>16</sup> See Comments of Patrick Sharpless at 7 (an analysis to determine the relevant product market is “unnecessary”). See also CEI Comments, *supra* note 8, at 8 (“relevant market assessment should not be performed at all ....”); Comments of Scott D. Wallsten, Ph.D., Senior Fellow and Director of Communications Policy Studies, the Progress Freedom Foundation (“Wallsten Comments”) (two-sided “platform” competition is a complex analysis, but no empirical analysis is provided). The analyses set forth in the Furchtgott-Roth Review and the Wallsten Comments each offer an alternative, but equally unsupported, market definition (“fixed and mobile communications services” in the Furchtgott-Roth Review, and “digital services” in the Wallsten Comments).

<sup>17</sup> See Joint Consumer Petition, *supra* note 4, at 14; NAB Petition, *supra* note 4, at 11; Entravision Comments, *supra* note 4, at 6. See also Expert Declaration of J. Gregory Sidak Concerning the Competitive Consequences of the Proposed Merger of Sirius Satellite Radio, Inc. and XM Satellite Radio, Inc. (Mar. 16, 2007) (“Sidak Declaration”); Sidak Supplemental Declaration, *supra* note 9.

<sup>18</sup> Joint Consumer Petition, *supra* note 4, at 14.

vast channel offerings, exclusive and indecent programming, and commercial-free nature of SDARS sets it apart from terrestrial radio.<sup>19</sup> MP3 players and CD players are limited to media already owned by the consumer and have no access to live programming.<sup>20</sup> Internet radio is not generally available at a competitive price as a mobile service at this stage in its development.<sup>21</sup> Access to audio content over mobile phones is in a similarly nascent stage, and is characterized by limited content and high prices.<sup>22</sup>

Even a more narrow market definition such as “all radio listening” is not an appropriate market definition without accompanying empirical evidence that local radio service constrains the price of satellite radio service.<sup>23</sup> C3SR, the Joint Consumer Parties, and the American Antitrust Institute have provided the Commission with substantial evidence to the contrary.<sup>24</sup> As demonstrated by Professor Sidak’s analysis using the DOJ and Federal Trade Commission’s *Horizontal Merger Guidelines*, even if local radio is considered a part of the market definition, a dangerously-high degree of market concentration would result from the merger in all Arbitron markets – even in the largest urban markets.<sup>25</sup> Moreover, the Comments of Clear Channel Communications, Inc. (“Clear Channel Comments”) correctly observe that the roughly four thousand owners of local radio stations cannot provide “. . . a meaningful

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<sup>19</sup> Comments of the American Antitrust Institute at 22-23 (“AAI Comments”).

<sup>20</sup> NAB Petition, *supra* note 4, at 16-17.

<sup>21</sup> Joint Consumer Petition, *supra* note 4, at 35.

<sup>22</sup> *Id.*

<sup>23</sup> See Entravision Comments, *supra* note 4, at 9.

<sup>24</sup> See Sidak Declaration, *supra* note 17, at 8-33; see also AAI Comments, *supra* note 19, at 19.

<sup>25</sup> Sidak Declaration, *supra* note 17, at paras. 61-67.

alternative to XM or Sirius, each of which has exclusive and unregulated control over the programming of over 100 channels, and cannot match XM's or Sirius's ability to acquire content.”<sup>26</sup> Therefore, even the narrower “all radio listening” market is an impossible uphill climb for the Merger Parties.

The adverse effects of the proposed merger on consumers in rural, unserved and underserved geographic areas clearly outweigh any public interest benefits to be gained. The C3SR Petition reveals the extent of potential harm resulting from this merger in rural areas by identifying areas where satellite radio service may be the only available radio service, or where it is critically important because there are few, if any, free local radio stations. Twenty-nine percent of the US population (age 12+) resides outside of Arbitron's metro survey areas, and 58% of the respondents to a recent survey of satellite radio subscribers indicated that they reside in a small city/town/rural area.<sup>27</sup> The notion that local radio service can provide price discipline on a satellite radio monopoly is dubious at best, especially where the availability of local radio signals is minimal or nonexistent – in areas where most of the current SDARS subscribers reside.

Many other commenting parties agree that the Sirius/XM merger is analogous to the attempted merger of EchoStar and DirecTV, which was effectively denied by the Commission.<sup>28</sup> In designating that merger application hearing, the FCC gave considerable weight to the potential impact on consumers in areas without cable television service.<sup>29</sup> In that

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<sup>26</sup> Clear Channel Comments at 16.

<sup>27</sup> See C3SR Petition, *supra* note 5, at 21; Press Release, Wilson Research Strategies, Survey of Satellite Radio Subscribers Executive Summary 2 (July 9, 2007), available at [http://www.w-r-s.com/press/WRS\\_NAB\\_Sat\\_Radio\\_Survey\\_Press\\_Release\\_070710.pdf](http://www.w-r-s.com/press/WRS_NAB_Sat_Radio_Survey_Press_Release_070710.pdf).

<sup>28</sup> NABOB Petition, *supra* note 4, at 5; Entravision Comments, *supra* note 4, at 5.

<sup>29</sup> EchoStar-DirecTV Order, *supra* note 13, at para. 177.

case, consumers in local markets would have experienced a reduction in the number of suppliers from three (the incumbent cable operator, DirecTV and EchoStar) to two in locations where consumers were served by cable television systems. Notably, in the DirecTV/EchoStar merger, each of the three suppliers in local markets carried comparable content with similar channel capacities. The FCC identified some five million Direct Broadcast Satellite (“DBS”) subscribers in areas not served by cable systems, and the Department of Justice (“DOJ”) with 23 State Attorneys General filed an action in Federal District Court under Section 7 of the Clayton Act to prohibit the merger.<sup>30</sup> As noted in the DOJ complaint, subscribers in unserved areas were most vulnerable to the merger because for them it was a merger of two to one – a merger to monopoly.<sup>31</sup>

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<sup>30</sup> See generally, Complaint, United States v. EchoStar Comm. Corp., No. 1:02CV02138 (D.D.C. Oct. 31, 2002).

<sup>31</sup> *Id.* at para. 37.

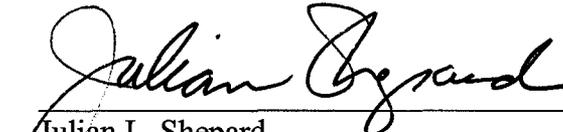
## CONCLUSION

The Merger Parties have advocated an unreasonably expansive and nebulous market definition, which incorrectly includes MP3 players, iPods, Internet radio, mobile phones and local radio. The Merger Parties have failed to acknowledge variations in the availability of local radio outside the larger urban markets. For the reasons set forth in C3SR's Petition to Deny and this Response, the proposed merger is contrary to the public interest and the Applications must be designated for hearing.

Respectfully submitted,

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July 24, 2007

**CERTIFICATE OF SERVICE**

I, Angela C. Spencer, hereby certify that on this 24<sup>th</sup> day of July, 2007, a copy of the foregoing Response of the Consumer Coalition for Competition in Satellite Radio was served by first-class U.S. mail, postage prepaid, to the following:

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# ***EXHIBIT A***

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
XM Satellite Radio Holdings Inc.,	)	
<i>Transferor</i>	)	MB Dkt. No. 07-57
	)	
and	)	
	)	
Sirius Satellite Radio Inc.,	)	
<i>Transferee</i>	)	
	)	
Consolidated Application for Authority to	)	
Transfer Control of XM Radio Inc. and Sirius	)	
Satellite Radio Inc.	)	

**SECOND SUPPLEMENTAL DECLARATION  
OF J. GREGORY SIDAK**

Introduction

- I. Problems with the Hazlett Report
  - A. Professor Hazlett Mischaracterizes Which Party Bears the Burden of Proof in FCC Merger Proceedings
  - B. Professor Hazlett's Focus on Quality-Adjusted Prices
  - C. Professor Hazlett's Novel Antitrust Theories Are Not the Law
    - 1. Market Definition
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  - D. Professor Hazlett's Critique of My Original Declaration
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- II. Problems in the Furchtgott-Roth Report
  - A. The Erroneous Assertion That XM and Sirius Do Not Compete Against One Another
  - B. The Relevant Time Horizon for Merger Review
  
- III. An Event Study Analysis Rejects XM's and Sirius's Procompetitive Hypothesis

Conclusion

## INTRODUCTION

1. I have been asked by counsel for the Consumer Coalition for Competition in Satellite Radio (C3SR) to review two reports submitted on behalf of XM and Sirius in support of their proposed merger: one by Professor Thomas W. Hazlett<sup>1</sup> and another by Dr. Harold Furchtgott-Roth.<sup>2</sup> I have previously addressed some aspects of both reports in my supplemental declaration, which can be downloaded from the Social Science Research Network.<sup>3</sup>

2. The reports of Professor Hazlett and Dr. Furchtgott-Roth contain numerous problems and inaccuracies. They fail to offer a single piece of evidence that informs the relevant product market definition for this proceeding—namely, whether satellite digital audio radio services (SDARS) customers perceive alternative audio entertainment sources, including MP3 players, Internet radio, and terrestrial radio, as being sufficiently close substitutes such that a hypothetical monopoly provider of SDARS could not profitably increase prices. Noting that iPods are growing in popularity does not constitute evidence of a cross-price elasticity of demand for SDARS with respect to a change in the price of iPods. Similarly, noting that the market value of terrestrial radio exceeds that of SDARS does not constitute evidence of a cross-price elasticity of demand for SDARS with respect to a change in the price of terrestrial radio.

3. More importantly, both experts appear to reject the current antitrust paradigm for analyzing mergers. In its place, they offer novel theories that violate basic economic logic. For example, Professor Hazlett Professor offers new antitrust theories with respect to market

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1. Thomas W. Hazlett, *The Economics of the Satellite Radio Merger*, June 14, 2007 [hereinafter *Hazlett Report*]. Evidently, counsel for XM and Sirius have chosen not to present Professor Hazlett's testimony as a formal affidavit or declaration.

2. Harold Furchtgott-Roth, *An Economic Review of the Proposed Merger of XM and Sirius*, June 27, 2007 [hereinafter *Furchtgott-Roth Report*].

3. Supplemental Declaration of J. Gregory Sidak Concerning the Competitive Consequences of the Proposed Merger of Sirius Satellite Radio, Inc. and XM Satellite Radio, Inc., available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=999577](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=999577).

definition, static-versus-dynamic analysis, and consumer-versus-total welfare. Dr. Furchtgott-Roth argues that the relevant time horizon for analyzing mergers should not apply here. Even if XM's and Sirius's experts are correct about radically redesigning the framework for antitrust analysis of horizontal mergers—and they are not—it is not appropriate for the FCC to announce some alternative merger guidelines without a proper rulemaking simply because doing so would suit the current merger proponents.

4. This report begins with a critique of Professor Hazlett's report. Professor Hazlett mischaracterizes which party bears the burden of proof in this merger proceeding, claiming that the burden falls on both merger opponents and regulatory agencies. Next, I demonstrate that by focusing on quality-adjusted prices, Professor Hazlett ignores the merged firm's ability to increase commercials. Professor Hazlett also omits mentioning that SDARS customers would be required to subscribe to a new, more expensive package to receive any increase in quality according to his concept of a quality improvement.

5. Next, I analyze Professor Hazlett's novel tests for product market definition. According to Professor Hazlett, a product market can exist only if the market value of all suppliers of the service exceeds the present value of funds invested. In a later section of his report, Professor Hazlett suggests another novel test for market definition, which considers the relative market value of terrestrial broadcasting properties to satellite radio operators. I demonstrate why these and other novel antitrust theories offered by Professor Hazlett are incorrect and should be ignored. Finally, I respond to Professor Hazlett's criticisms of my original declaration.

6. In Part II, I critique Dr. Furchtgott-Roth's report. Dr. Furchtgott-Roth incorrectly seeks to extend the standard two-year window for entry analysis so that nascent services like

mobile Internet radio can have time to develop. Dr. Furchtgott-Roth also repeats Professor Robert Willig's (unpersuasive) argument in the DirecTV-EchoStar proposed merger—that XM and Sirius do not compete against one another, yet each does compete against terrestrial radio and other services.

7. In Part III, I perform an event-study analysis to test XM's and Sirius's hypothesis that the proposed merger would expand output and decrease prices (the "procompetitive hypothesis"). I examine the abnormal returns of satellite equipment manufacturers around the day on which the proposed merger of XM and Sirius was announced. I find that the market perceived the announcement of the proposed merger between XM and Sirius as "bad news" for satellite equipment manufacturers, which implies that the proposed merger would result in higher prices for SDARS customers.

#### I. PROBLEMS WITH THE HAZLETT REPORT

8. In this section, I identify several errors that are unique to Professor Hazlett. I also respond to Professor Hazlett's critique of my original declaration.

##### A. Professor Hazlett Mischaracterizes Which Party Bears the Burden of Proof in FCC Merger Proceedings

9. In his section on the proposed merger's impact on consumers, Professor Hazlett makes statements regarding the standard for merger review and the burden of proof that are unsubstantiated by antitrust law and administrative precedent. He states that the reviewing agencies should determine merger outcomes based on "whether the proposed merger will likely increase or decrease the value of services available to consumers."<sup>4</sup> Section 7 of the Clayton Act does not say that. Instead, it states that a merger should be prohibited if its effect "may be

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4. *Hazlett Report*, *supra* note 1, at 12.

substantially to lessen *competition* . . . .”<sup>5</sup> If one measures “the value of services available to consumers” as the area under the demand curve, a merger of competitors that raises price and reduces output does cause the demand curve to shift inward. The antitrust laws are concerned with consumer welfare, not willingness to pay by itself.

10. Professor Hazlett also says that “the burden of proof should not be on the marketplace,”<sup>6</sup> implying that opponents of the proposed merger bear the burden of proof. Rather, it is well established by FCC precedent that the applicants (the merging parties) bear the burden of proving, by a preponderance of the evidence, that their proposed merger will serve the public interest.<sup>7</sup> For example, in the *MCI-WorldCom* order the FCC said the applicants’ must ultimately prove (and the agency must find) that “the Applicants have demonstrated, by a preponderance of the evidence, that the proposed transaction, on balance, serves the public interest, considering both its competitive effects and other public interest benefits and harms.”<sup>8</sup> Therefore, if XM and Sirius fail to provide evidence sufficient to meet the preponderance-of-the-evidence standard, the proposed merger should not be allowed.<sup>9</sup>

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5. 15 U.S.C. § 18 (emphasis added).

6. Hazlett, *supra* note 1, at 12.

7. *AT&T Inc. & BellSouth Corp., Application for Transfer of Control*, 22 F.C.C.R. 5662, 5672; *SBC Communications, Inc., & AT&T Corp., Applications for Approval of Transfer of Control*, 20 F.C.C.R. 18290, 18292; *Verizon Communications, Inc., and MCI, Inc., Applications for Approval of Transfer of Control*, 20 F.C.C.R. 6293, 6296; *Applications of AT&T Wireless Services, Inc. & Cingular Wireless Corp.*, 19 F.C.C.R. 21522, 21542-44 (citing, e.g., *General Motors Corp. & Hughes Elec. Corp., Transferors, & The News Corp. Ltd., Transferee*, 19 F.C.C.R. 473, 483; *Applications for Consent to the Transfer of Control of Licenses from Comcast Corporation and AT&T Corp.*, 17 F.C.C.R. 23246, 23255; *Application of EchoStar Communications Corporation (a Nevada Corporation), General Motors Corporation, and Hughes Electronics Corporation (Delaware Corporations) (Transferors) and EchoStar Communications Corporation (a Delaware Corporation) (Transferee)*, 17 F.C.C.R. 20559, 20574 [hereinafter *DirectTV Hearing Designation Order*]).

8. *Teleport Communications Group Inc., Transferor, and AT&T Corp. Transferee*, FCC 98-169; *Applications of NYNEX Corp., Transferor, and Bell Atlantic Corp., Transferee, For Consent to Transfer Control of NYNEX Corp. and Its Subsidiaries*, 12 F.C.C.R. 19985; *In the Matter of the Merger of MCI Communications Corp. and British Telecommunications PLC*, 12 F.C.C.R. 15351, 15367.

9. The burden of proof under section 7 of the Clayton Act is similar. In a decision written by future Justice Thomas and joined by future Justice Ginsburg, the D.C. Circuit stated that, once the government establishes that the proposed merger would significantly decrease competition in the relevant market, a presumption arises that the proposed merger would substantially lessen competition for purposes of section 7. It is then the burden of the

**B. Professor Hazlett's Focus on Quality-Adjusted Prices**

11. Unless the two SDARS providers are perfectly colluding, economic theory dictates that the post-merger price would exceed the pre-merger price under *any* assumption of elasticity of demand and price-cost margin for SDARS. In an attempt to divert attention from the (unadjusted) price effect, Professor Hazlett argues that merger would result in lower quality-adjusted prices for SDARS.<sup>10</sup> By quality-adjusted prices, Professor Hazlett presumably means the (likely higher) price per month adjusted for allegedly greater quality made possible by the merger. The expectation that quality would adjust upward is wrong for several reasons.

12. First, as I explained above, rivalry among SDARS providers constrains the ability of each satellite radio provider to inject commercials into its channel lineup. The elimination of that rivalry would enable the merged firm to increase advertising significantly. Professor Hazlett fails to consider how an increase in commercials offered by the merged firm would actually *increase* quality-adjusted prices (by decreasing quality), which would unequivocally reduce consumer welfare.

13. Second, the quality-adjusted price could decline only for a subset of subscribers who opted for the bundle. Even for these customers, it is not clear that XM and Sirius would price the bundle in such a way as to increase consumer surplus. Professor Hazlett argues that the merger would reduce "effective prices" to subscribers by combining the content of the two firms under one roof.<sup>11</sup> But XM and Sirius have announced that they would *increase* the price of a package that included both channel lineups, which means that the effective price (assuming no

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merging parties to rebut that presumption. *United States v. Baker Hughes, Inc.*, 908 F.2d 981, 984 (D.C. Cir. 1990). *Accord*, *FTC v. H.J. Heinz Co.*, 246 F.3d 708, 715 (D.C. Cir. 2001).

10. *Hazlett Report*, *supra* note 1, at 31 ("In fact, independent analysts predict that the merger will lower quality-adjusted prices for consumers, leading to increases in subscriber growth due to efficiencies entirely ignored in the Sidak analysis.").

11. *Id.* at 4 ("A merger that reduces effective prices to subscribers and delivers billions of dollars worth of cost saving efficiencies is in the public interest under either a 'consumer welfare' or a 'total welfare' standard.").

unilateral price effect) could be unchanged. Whether any discount on the larger package that included both lineups would compensate SDARS subscribers for duplicative content is an empirical exercise that Professor Hazlett fails to perform.

14. Finally, current XM radios cannot receive Sirius frequencies, and vice versa. Thus, adding content to one radio lineup would require dropping existing content. Although there is a promise to develop dual format radios, there is no timeline as to when they will be available. Although Professor Hazlett perceives the ability to listen to all exclusive content in some indeterminate point in the future as a quality improvement for satellite customers, it is hardly a consolation to current consumers who will be immediately hit with more commercials and higher prices.

**C. Professor Hazlett's Novel Antitrust Theories Are Not the Law**

15. Professor Hazlett offers novel antitrust theories with respect to market definition, static-versus-dynamic analysis, and consumer-versus-total welfare. I critique each of those theories here. Professor Hazlett should direct his criticisms of antitrust analysis to the Antitrust Division and the FTC. They write the merger guidelines. Even if Professor Hazlett is correct about radically redesigning the framework for antitrust analysis of horizontal mergers, it is not appropriate for the FCC to announce some alternative merger guidelines without a proper rulemaking simply because doing so would suit the current merger proponents.

**1. Market Definition**

16. As an alternative to established antitrust analysis, Professor Hazlett offers two novel tests for market definition. According to Professor Hazlett, a product market should not be defined in the traditional sense by whether a hypothetical monopoly provider of a service could profitably raise prices above competitive rates. Instead, a product market can exist only if the

market value of all suppliers of the service exceeds the present value of funds invested.<sup>12</sup> Because this condition is allegedly not satisfied for satellite radio, Professor Hazlett concludes that satellite radio cannot represent the relevant antitrust product market.

17. Professor Hazlett's novel test for market definition should be distinguished from Tobin's *q* in economics, which compares the value of a company given by financial markets with the *replacement* value of a company's assets.<sup>13</sup> For ease of exposition, I refer to Professor Hazlett's proposed test, which evidently focuses on the *historical* or *book* value of a company's assets, as "Hazlett's *z*." According to Professor Hazlett, if Hazlett's *z* for an industry exceeds one, then the industry represents a product market; otherwise, the product market should be expanded. It is no surprise that Hazlett's *z* cannot be found in the antitrust literature, as it violates antitrust principles and economic reasoning. First, in antitrust analysis, product markets are defined from the perspective of consumers.<sup>14</sup> Hazlett's *z* says nothing about the way in which consumers perceive the services supplied by satellite radio providers, either in absolute terms or relative to the services supplied by terrestrial radio broadcasters. Second, applying Hazlett's *z* during the nascent stage of any network industry with large upfront costs—for example, the wireless industry in the early 1990s—would cause one to reject several product markets that have been recognized by antitrust authorities. Third, given the daily fluctuations in the market value of any company, Hazlett's *z* test could recognize a product market on one day, only to reject the same product market on the following day. Fourth, XM's and Sirius's substantial

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12. *Id.* at 5 ("Further, it is noteworthy that the 'duopoly' or 'monopoly' satellite radio market alleged to exist exhibits a market value that is less than the present value of funds invested.").

13. James Tobin, *A General Equilibrium Approach to Monetary Theory*, 1 J. MONEY, CREDIT & BANKING 15 (1969).

14. *Department of Justice and Federal Trade Commission Horizontal Merger Guidelines*, released Apr. 8, 1997, §1.0 ("Market definition focuses solely on demand substitution factors—i.e., possible consumer responses. Supply substitution factors—i.e., possible production responses—are considered elsewhere in the Guidelines in the identification of firms that participate in the relevant market and the analysis of entry.").

investment in programming and equipment, which reduces Hazlett's  $z$ , could be the result of bad business decisions. It is not clear that the FCC should tolerate a merger to monopoly that covers up bad business decisions in the past, simply because the Hazlett  $z$  test is not satisfied. For these reasons, it would be inappropriate to employ Hazlett's  $z$  test for market definition in this proceeding.

18. In a later section of his report, Professor Hazlett suggests another novel test for market definition, again based on financial ratios. This test, which I shall call the "Hazlett size test," considers the relative market value of terrestrial broadcasting properties to satellite radio operators:

Even the tiny share of radio broadcasting sales accounted for by satellite radio—just 6.8 percent as of 2006—diminishes when additional audio services are accounted for. This reveals the presence of a wide array of popular, effective, and competitively priced substitutes, rendering a satellite merger harmless.<sup>15</sup>

This comparison reveals nothing of the sort. The revenues of SDARS providers can be compared against the revenues of many services in the U.S. economy against which SDARS does not compete—including the revenues of Microsoft or the Washington Redskins. Like the "Hazlett's  $z$ ," the "Hazlett size test" does not inform the relevant question in antitrust law of whether satellite consumers perceive terrestrial radio to be reasonably interchangeable with satellite radio.<sup>16</sup> It is revealing that XM's and Sirius's expert economist does not offer any credible evidence of consumer substitution from satellite radio to an iPod or to terrestrial radio. Perhaps no such evidence exists.

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15. *Hazlett Report*, *supra* note 1, at 20 (emphasis added).

16. Dr. Furchtgott-Roth offers the same test for market definition in his report. However, it is irrelevant from an antitrust law perspective that, "[a]mong mobile communications services, satellite radio is a relatively small service." *Furchtgott-Roth Report*, *supra* note 2, at 9. Also irrelevant as a matter of antitrust law are statistics relating to the percentage of Americans who listen to terrestrial radio or to MP3 players during a week relative to percentage of Americans who listen to satellite radio. *Id.* at 10.

## 2. Static Versus Dynamic Analysis

19. Professor Hazlett also criticizes the “static tools” of antitrust analysis used in my original declaration.<sup>17</sup> He argues that the dynamic nature of satellite radio defies traditional merger analysis,<sup>18</sup> and that innovation and technology among SDARS providers requires that the industry be analyzed differently from other, non-technological and non-innovative industries.<sup>19</sup> Like his recommendations for market definition, Professor Hazlett’s critique of static analysis does not reflect the current state of antitrust law. Similar “dynamic” arguments were considered and unanimously rejected en banc by the D.C. Circuit in *Microsoft*.<sup>20</sup> Moreover, Professor Hazlett’s argument was considered and rejected by the Antitrust Modernization Commission (AMC) Report and Recommendations. The AMC was directed by Congress to undertake a comprehensive review of U.S. antitrust law to determine whether it should be modernized. In its April 2007 report, the AMC found that “[n]o substantial changes to merger enforcement policy are necessary to account for industries in which innovation, intellectual property, and technological change are central features.”<sup>21</sup> Indeed, Professor Hazlett relies on testimony that was presented to the AMC but not followed by it. Specifically, he quotes testimony claiming that dynamic efficiency should be given greater weight in merger proceedings.<sup>22</sup> Whatever the

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17. *Hazlett Report*, *supra* note 1, at 38 (“The static analysis used by Prof. Sidak omits consideration of whether the XM Sirius merger could lead to product improvements that increase value for consumers.”). Dr. Furchtgott-Roth similarly argues that it would be “unreasonable” to use static analysis to review this particular merger. *Furchtgott-Roth Report*, *supra* note 2, at 4.

18. *Hazlett Report*, *supra* note 1, at 17 (“Recognizing the dynamic nature of radio fundamentally undercuts the static analysis of market share offered by broadcasters’ ‘merger to monopoly’ claim, as shown in detail in Section V.”).

19. *Id.* at 27 (“The dynamics of this real world marketplace force rivals to innovate and to differentiate, precisely as broadcasters are doing in adopting digital technologies to produce HD digital radio.”).

20. *United States v. Microsoft Corp.*, 253 F.3d 34, 49 (D.C. Cir. 2001) (en banc).

21. ANTITRUST MODERNIZATION COMMISSION, *Report and Recommendations*, Apr. 2007, at 9, available at [http://www.amc.gov/report\\_recommendation/amc\\_final\\_report.pdf](http://www.amc.gov/report_recommendation/amc_final_report.pdf). [hereinafter *AMC Report*].

22. *Hazlett Report*, *supra* note 1, at 40 (“Dynamic competition to develop new products and to improve existing products can have much greater impacts on consumer welfare than static price competition, and antitrust policy should take dynamic competition into account when evaluating mergers or conduct in innovation-intensive

intellectual merits of this argument, the AMC Report and Recommendations reached the opposite conclusion. According to the AMC, the consensus opinion favored existing merger guidelines, and found current antitrust policy to be fundamentally sound.<sup>23</sup> If this aspect of merger law is to be revised, it should be revised prospectively as a matter of general applicability, not on a piecemeal basis in what would amount to a special dispensation for XM and Sirius.

### 3. Consumer Welfare Versus Total Welfare

20. Professor Hazlett embraces a total welfare standard for merger review.<sup>24</sup> For example, Professor Hazlett's discussion of merger-specific benefits includes both consumers and producers.<sup>25</sup> The AMC found that a consumer-welfare standard should be used in antitrust analyses,<sup>26</sup> and that it would be inappropriate to consider total welfare because total welfare can increase while consumer welfare decreases.<sup>27</sup> Professor Steven Salop provides an illustrative example in his testimony submitted to the AMC, which shows how gains to shareholders from a monopoly insulin producer exceed the losses to consumers from higher prices, thus satisfying the total welfare criteria.<sup>28</sup> To establish that that the FCC's public interest standard should deviate

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industries.") (citing Richard J. Gilbert, *New Antitrust Laws for the "New Economy"?*, Testimony Before the Antitrust Modernization Commission, Washington, D.C., Nov. 8, 2005, at 1).

23. *Id.* at 54 ("The current merger policy of the United States is fundamentally sound. The testimony of numerous antitrust practitioners and economists and comments from a variety of interested parties show general consensus on this point.")

24. *Id.* at 4 ("A merger that reduces effective prices to subscribers and delivers billions of dollars worth of cost saving efficiencies is in the public interest under either a "consumer welfare" or a "total welfare" standard.")

25. *Hazlett Report, supra* note 1, at 13 ("Arguments as to the relevant market and its competitiveness are secondary. The primary consideration is whether a given transaction will benefit consumers and the economy.")

26. *AMC Report* at 423 ("Any doubts that a consumer welfare standard better reflects the goals of the antitrust laws than a standard based on total welfare will serve only to undermine antitrust enforcement in the future.")

27. *Id.* at 423 ("By declining to focus on the effects on consumers, as the consumer welfare approach does, the total welfare standard encourages practices that transfer wealth from consumers to producers, as well as practices that benefit competitors at consumers' expense.")

28. Steven C. Salop, *Question: What is the Real and Proper Antitrust Welfare Standard? Answer: The True Consumer Welfare Standard*, Submission to Antitrust Modernization Commission, Nov. 4, 2005, at 5.

from the AMC's consumer-welfare standard, Professor Hazlett would need to cite some merger authority, which he fails to do.

**D. Professor Hazlett's Critique of My Original Declaration**

21. Professor Hazlett claims to have identified a handful of errors in my original declaration. Having carefully reviewed his critique, my opinions on the likely competitive ramifications of the proposed merger are unchanged.

**1. Estimation of the Critical Elasticity**

22. Professor Hazlett claims that, under my margin assumptions, the critical elasticity of demand is actually -1.43, and not the -1.52 that I calculated.<sup>29</sup> He argues that my error is due to a mathematical mistake in my derivation. As it turns out, there is no mistake. The log of  $1.05^e$  is in fact  $e \times \log(1.05)$ . Because the industry elasticity of demand for satellite radio ("elasticity"),  $e$ , did not appear in superscript in the footnote, Professor Hazlett inferred that I took the logarithm of the *product* of 1.05 and the elasticity. Of course, the difference between -1.52 and -1.43 is not economically significant. The point of the exercise is to establish a benchmark against which the actual elasticity can be compared. Doing so forces the analyst, including Professor Hazlett, to focus on the *marginal* effect of a price increase by a hypothetical monopoly provider of SDARS. Professor Hazlett rejects this analysis for market definition, however, because it fails to consider the Hazlett's  $z$  (relating to the amount of invested funds) and the Hazlett size test (relating to the relative size of SDARS subscription revenue to terrestrial advertising revenue).

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29. *Id.* at 30.

## 2. Measuring Seller Concentration

23. Professor Hazlett critiques my use of capacity shares in measuring seller concentration under an overly expansive market definition that includes both HD radio and SDARS. In particular, Professor Hazlett argues that revenue shares are more appropriate:

Suffice it to say that this interpretation of the HHI merger analysis is unrealistic. In place of competitively misleading channel numbers, an appraisal of *rival economic size* is called for. The standard metric used in merger analysis is revenues. As seen above in Table 4, terrestrial radio revenues in 2006, at over \$21 billion annually, dwarf satellite radio sales of \$1.6 billion.<sup>30</sup>

Before defending my approach, it bears emphasis that the entire exercise of comparing the relative size of HD or terrestrial radio to SDARS under any metric is completely irrelevant when defining markets, and it is largely irrelevant when predicting price effects. Notwithstanding this caveat, Professor Hazlett is again wrong as a matter of economics. The standard metric used in merger analysis is not revenues, as Professor Hazlett asserts. If this were so, the Merger Guidelines would not counsel the use of capacity shares when capacity is the better measure of a firm's "future competitive significance."<sup>31</sup> Professor Hazlett fails to consider the *nascent* stage of digital radio providers in the United States, including SDARS providers. Given the state of HD radio deployment, a comparison of HD *advertising* revenues (which are virtually non-existent) with SDARS *subscription* revenues would be meaningless, and it would only serve to inflate the relative size of SDARS in the purported digital audio market. Once again, Professor Hazlett rejects established antitrust standards by suggesting that "rival economic size" replace "future economic significance" when calculating market shares. Although a comparison of terrestrial

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30. *Id.* at 35 (emphasis added).

31. *Merger Guidelines, supra* note 14, § 1.41 ("Market shares will be calculated using the best indicator of firms' future competitive significance. Dollar sales or shipments generally will be used if firms are distinguished primarily by differentiation of their products. Unit sales generally will be used if firms are distinguished primarily on the basis of their relative advantages in serving different buyers or groups of buyers. Physical capacity or reserves generally will be used if it is these measures that most effectively distinguish firms.").

*advertising* revenues to satellite *subscription* revenues suits the narrow interests of XM and Sirius here, that is no reason to reject decades of antitrust jurisprudence.

24. Next, Professor Hazlett asserts that under my preferred approach for measuring market shares here, the antitrust authorities could not block a hypothetical merger in a market where the “top seven radio stations in a market featuring 35 individually-owned stations accounted for 80% of the market’s ad sales and listener ratings.”<sup>32</sup> Of course, like the Merger Guidelines themselves, I reserve the right to embrace an alternative metric for measuring market shares in a hypothetical merger for another industry, especially if the market is sufficiently developed (and revenues are directly comparable) such that a provider’s revenue is a better proxy than its capacity for its “future competitive significance.” Finally, Professor Hazlett’s suggestion that any measure of market share based on capacity should include the capacity of all MP3 players in existence cannot be taken seriously.<sup>33</sup> To my knowledge, getting a Howard Stern show or a Major League Baseball game to play in real-time on an MP3 player is not technically feasible.

### 3. Industry Elasticity of Demand

25. Professor Hazlett criticizes my analysis for not having estimated the industry elasticity of demand for SDARS:

In evaluating evidence as to the own-price elasticity for satellite radio demand, Sidak’s key empirical evidence suggesting low elasticity is that when, in April 2005, XM hiked monthly service prices by 30% it encountered (according to Sidak) virtually no reduction in subscriber growth. This is said to establish price elasticity of demand below the critical level, revealing satellite radio to be a distinct market.<sup>34</sup>

Although it does constitute “direct evidence” of elasticity, XM’s 30 percent price increase was not offered as a point estimate for the actual elasticity of demand facing a hypothetical monopoly

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32. *Hazlett Report*, *supra* note 1, at 34-35.

33. *Id.* at 34.

34. *Id.* at 30.

provider of SDARS. It was intended to demonstrate the general insensitivity of demand for SDARS with respect to changes in price. Moreover, it is not the burden of merger opponents to prove that the actual elasticity of demand is less than the critical elasticity. To the contrary, XM and Sirius bear the burden of demonstrating that the actual elasticity of demand for SDARS exceeds the critical level. Not only have they failed to offer any estimate of elasticity, the merger proponents have failed to offer any *qualitative* evidence of consumer substitution from SDARS to terrestrial radio, to iPods, or to mobile Internet radio.<sup>35</sup> The closest that Professor Hazlett comes to doing so is an anecdote relating to a *single* satellite subscriber who “on long trips, uses his EV-DO-connected laptop to play Internet radio stations, using a Rhapsody web application, through his car speaker system.”<sup>36</sup> Of course, this anecdote may imply that the user perceives Internet radio and SDARS to be complements. Although I do not personally know anyone who switched from XM or Sirius to an iPod in response to a price increase of satellite radio, I would expect that XM and Sirius have the resources and the incentive to locate at least one anecdote. But they have not done so, nor has Professor Hazlett.<sup>37</sup> In the absence of such evidence in the record, one must conclude that (1) there is no evidence of substitution from satellite radio to

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35. For example, Dr. Furchtgott-Roth asserts, without empirical support, that the “availability and pricing of mobile internet services help discipline the market behavior of businesses offering . . . satellite radio services.” *Furchtgott-Roth Report, supra* note 2, at 7. There is no evidence offered by XM and Sirius on the cross-price elasticity of demand of SDARS service with respect to mobile Internet services. In footnote 25, Dr. Furchtgott-Roth notes that the price of T-Mobile’s unlimited Internet-only plan is \$49.99 per month. It is not clear how such service would be attractive to a consumer currently paying \$12.95 for SDARS service.

36. *Hazlett Report, supra* note 1, at 28.

37. Neither has Dr. Furchtgott-Roth. For example, Dr. Furchtgott-Roth states—but merely asserts the answer to—the relevant question for antitrust purposes: Whether “[c]onsumers who want the convenience of mobility and audio programming similar to that which is available on either XM or Sirius have a choice . . .” He asserts that “they can find comparable audio services on the internet, on an AM/FM radio, or on other mobile devices,” such that “[t]he availability of these alternative choices significantly limits any possible exercise of market power by a combined XM and Sirius.” *Dr. Furchtgott-Roth Report, supra* note 2, at 14. He never produces empirical evidence to substantiate this assertion. To state a proposition is not the same as proving that it is true. Moreover, the valuable expertise that an economist brings to answering the question is empirics, not rhetoric. If rhetoric is to decide questions of merger analysis, we do not need expert economic reports or legal briefs. Newspaper editorials written by journalists will suffice.

terrestrial radio or iPods or (2) there is scant evidence, but XM and Sirius do not wish to share it with their expert economist.

#### 4. Analogy to the Cable Industry

26. Professor Hazlett partially rejects my analogy to the cable industry, in which terrestrial television does not constrain the pricing of cable television:

The analogy is apt but demonstrates just the reverse. The 1992 Act specifically defined cable markets as “effectively competitive” when they served fewer than 30% of homes passed, a threshold condition easily met by satellite radio services today. Moreover, prior to 1992, when cable had yet to become the dominant distribution platform for video, FCC regulators explicitly defined “effective competition” as the presence of three (and, later, six) over-the-air TV stations. This non-dominant position is where subscription radio is today, and it likewise competes with broadcasters for market share.<sup>38</sup>

Once again, Professor Hazlett is conflating regulatory standards and antitrust standards. The question facing communications regulators in the early 1990s was, “Under what conditions should a cable operator be subjected to rate regulation?” In contrast, the relevant question facing the FCC in this merger proceeding is, “Could a hypothetical monopoly provider of SDARS profitably raise prices without having control of all terrestrial radio signals?” The fact that a satellite radio provider could be classified as “non-dominant” under an outmoded and likely arbitrary<sup>39</sup> standard for rate regulation in a different industry does not inform the relevant antitrust question here.

## II. PROBLEMS IN THE FURCHTGOTT-ROTH REPORT

27. Like Professor Hazlett, Dr. Furchtgott-Roth is critical of existing antitrust analysis. He seeks to extend the standard two-year window for entry analysis so that nascent

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38. *Id.* at 31.

39. After reviewing a study by Steven Wildman and James Dertouzos, which estimated the extent to which terrestrial television signals discipline the price of cable television, Professor Hazlett concludes that “their study does not allow us to conclude that the presence of a given number of off-air television competitors eliminates market power.” See THOMAS W. HAZLETT & MATTHEW L. SPITZER, PUBLIC POLICY TOWARD CABLE TELEVISION 7 (MIT Press & AEI Press 1997).

services like mobile Internet radio can have time to develop. He also commits the same error that was made by Professor Robert Willig on behalf of DirecTV and Echostar in the direct broadcast satellite (DBS) merger proceeding before the FCC.

**A. The Erroneous Assertion That XM and Sirius Do Not Compete Against One Another**

28. Dr. Furchtgott-Roth repeats Professor Robert Willig's argument in the DirecTV-EchoStar proposed merger<sup>40</sup>—that XM and Sirius do not compete against one another, yet each does compete against terrestrial radio and other services.

Although XM and Sirius both offer satellite radio services, and both compete for new customers, particularly those interested in portable plug-and-play devices, there is not likely substantial switching among existing customers between the two. Part of the reason for the lack of substantial switching between existing customers is the high switching cost for factory-installed satellite equipment in automobiles, and automobiles account for a substantial share of the customer base for both XM and Sirius.<sup>41</sup>

Are the switching costs of SDARS sufficiently great such that XM cannot discipline the price of Sirius, and vice versa? If so, then XM and Sirius have the burden of proving that fact, which Dr. Furchtgott-Roth does not do. He merely asserts that switching costs are high.

29. As Professor Willig did before him, Dr. Furchtgott-Roth insists that the demand for SDARS and the demand for broadcast radio service are cross-price elastic, for that assumption expands the definition of the relevant market and makes the market shares of XM and Sirius look small.<sup>42</sup> But there remains the inconvenient question that Dr. Furchtgott-Roth

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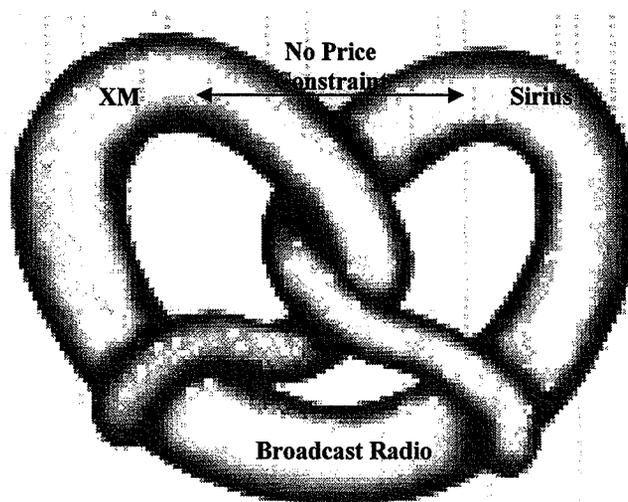
40. Declaration of Robert D. Willig on behalf of Echostar Communications Corporation, Hughes Electronics Corporation, and General Motors Corporation 6 ¶ 10 n.5 (filed Dec. 3, 2001). Professor Willig argued that DirecTV and Echostar did not discipline each other's prices. His assertion was based on material from company executives: "When queried regarding their pricing decisions relative to the other DBS providers, executives at both EchoStar and DirecTV indicated that they monitor the pricing of the other firm, but that such pricing plays little (if any) role in their own pricing decisions. The executives repeatedly emphasized that the primary determinant of their pricing was the price required to lure cable subscribers to DBS." *Id.* at 6 ¶ 10 n.5.

41. *Furchtgott-Roth Report, supra* note 2, at 7.

42. Although, as any sophisticated student of antitrust analysis knows, an arbitrary expansion or contraction of the definition of the relevant market is matched by a countervailing adjustment in the (correctly calculated)

elides: Are the demand for XM and the demand for Sirius cross-price elastic? Dr. Furchtgott-Roth never says “no.” One way out of this logical trap would be to define two distinct submarkets within the purported market for all radio service: (1) radio service excluding XM, and (2) radio service excluding Sirius. Figure 2, which I call XM’s Pretzel, shows the two distinct product markets implied by Dr. Furchtgott-Roth’s position:

FIGURE 2: XM’S PRETZEL—TWO DISTINCT PRODUCT MARKETS



If, as XM’s Pretzel depicts, XM did not constrain the price of Sirius (and vice versa), then a hypothetical monopoly distributor of radio services that owned XM and all broadcast radio stations in some relevant geographic market could, without simultaneously owning Sirius, raise its price significantly above the competitive levels for a nontransitory period of time. By embracing the larger radio market, however, Dr. Furchtgott-Roth acknowledges that XM constrains the pricing of Sirius, and that XM should therefore be included in the *same* product market as Sirius.

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market shares and cross-price elasticity of supply by fringe firms. See William E. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937, 944-45 (1981).

30. On a more fundamental level of microeconomic theory, it is counterintuitive to say that two virtually identical products, *A* and *B*, are each substitutes for some nonidentical product *C*, yet *A* and *B* are not substitutes for one another. Although there may exist some exceptions, it is generally the case that if *A* is a substitute for *C*, and *C* is a substitute for *B*, then by transitivity *A* is also a substitute for *B*.<sup>43</sup> If Coke is a substitute for Seven-Up, and Seven-Up is a substitute for Pepsi, then Coke and Pepsi are most likely also substitutes for one another.<sup>44</sup> Applied to the present case, Dr. Furchtgott-Roth is asking the Commission to believe that consumers perceive that (1) XM is a substitute for broadcast radio service, and (2) broadcast radio service is a substitute for Sirius, but (3) XM is not a substitute for Sirius, and Sirius is not a substitute for XM. This reasoning is pretzel logic, and it should be rejected, just as the Commission did in its review of the proposed DirecTV-Echostar merger.<sup>45</sup>

#### **B. The Relevant Time Horizon for Merger Review**

31. Dr. Furchtgott-Roth asserts that mobile broadband services “will provide enormous competition to . . . satellite radio services, whether offered separately or jointly by Sirius and XM.”<sup>46</sup> He implies that the time horizon for this “enormous competition” is the five-year period from 2007 to 2012.<sup>47</sup> This assertion of competitive constraint on the price of SDARS

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43. This transitive relationship is reminiscent of the strong axiom of revealed preference. See JAMES M. HENDERSON & RICHARD E. QUANDT, MICROECONOMIC THEORY: A MATHEMATICAL APPROACH 46 (McGraw-Hill 3d ed. 1980); see also DAVID M. KREPS, A COURSE IN MICROECONOMIC THEORY 23 (Princeton University Press 1990) (proposition 2.2(c)).

44. Cf. JOSEPH E. STIGLITZ, ECONOMICS 212 (W.W. Norton & Co. 1993) (using Coke and Pepsi to illustrate substitutes).

45. *DirecTV Hearing Designation Order*, supra note 7, 17 F.C.C.R. No.20559, 20622, ¶ 160 (“First, as discussed in Appendix E, the methodology the Applicants use to compute the cross-price elasticities of demand is fatally flawed, and their estimate of a low degree of substitutability between EchoStar and DirecTV service is simply not credible. In addition, the conclusion that EchoStar and DirecTV do not really compete against each other is inconsistent with the characteristics of the DBS services offered by the Applicants, contradicted by documents submitted by the Applicants, and undercut by the allegations contained in the antitrust suit EchoStar filed against DirecTV.”).

46. *Furchtgott-Roth Report*, supra note 2, at 11.

47. *Id.* at 11.

invites two responses. First, five years is plainly much longer than the two-year horizon typically used to evaluate the competitive consequences of a proposed merger.<sup>48</sup> The longer the horizon, the greater the variance in predictions about changes in demand or supply conditions. Dr. Furchtgott-Roth later asserts that, “from a consumer perspective, the relevant market contains choices from today onward—not choices available retrospectively.”<sup>49</sup> Again, this statement does not correspond precisely to the framework of the *Merger Guidelines*. They address consumer substitutability that currently exists—not what might exist as time marches “onward.” Another name for consumer choices that exist in the future is entry. The *Merger Guidelines* explicitly reserve consideration of supply substitutability (including entry) until after the relevant product and geographic market has been defined from strictly a consumer perspective *today*.

32. Second, even if their proposed merger is blocked today, XM and Sirius are still able to return several years from now with evidence that market conditions have so changed that it would no longer be the case that “the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.”<sup>50</sup> In a merger review, the Antitrust Division and the FCC are not charged by Congress with implementing a five-year Gosplan for the communications sector.

33. Dr. Furchtgott-Roth’s report “jumps the shark” when he concludes that “government agencies reviewing the merger of XM and Sirius should review the merger *over many years into the future, a time horizon much longer than for most merger reviews.*”<sup>51</sup> It is

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48. *Merger Guidelines*, *supra* note 14, §3.2 (“The Agency generally will consider timely only those committed entry alternatives that can be achieved within two years from initial planning to significant market impact.”).

49. *Furchtgott-Roth Report*, *supra* note 2, at 16.

50. 15 U.S.C. § 18.

51. *Furchtgott-Roth Report*, *supra* note 2, at 19.

necessary, in his view, for that “rational time frame” to be “*unusually long*.”<sup>52</sup> Dr. Furchtgott-Roth’s rationale is that XM and Sirius “have an unusually long planning horizon” because of “the complexity of technology and the time required to develop and launch services.”<sup>53</sup> So how long should the time horizon for merger review be? “The relevant planning horizon for a satellite-services firm is many years to launch a service and 15-30 years for the service to continue in operation.”<sup>54</sup> “Consequently, the relevant time period to examine this merger is not just 2007 but the *many following years* during which the newly merged firm would be implementing a new business plan and during which new competitors would be implementing their business plans.”<sup>55</sup> “[I]t would be unreasonable to evaluate the proposed merger in a shorter time period.”<sup>56</sup> This advice is directed—in all seriousness—to the Antitrust Division’s review of this proposed merger as well as the FCC’s.

34. To hear Dr. Furchtgott-Roth describe satellite radio service, XM and Sirius rival the human genome project in terms of “the complexity of technology” and “the time required to develop and launch services.” Many industries—pharmaceuticals, software, defense, and aerospace to name only four obvious ones—have long planning horizons. The assertion that the proposed merger of XM and Sirius requires the FCC to use an “unusually long” time horizon for assessing market power is simply special pleading. A firm’s demand curve always flattens as one lengthens the time horizon.

35. The practical difficulty with Dr. Furchtgott-Roth’s prescription is that one’s crystal ball always become hazier the farther one gazes into the future. Consequently, claims of

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52. *Id.* at 18.

53. *Id.* at 19.

54. *Id.*

55. *Id.* at 20.

56. *Id.*

distant but eventual consumer substitutability, entry, and efficiency gains are all essentially nonfalsifiable. The prescription is consistent with the following strategy for XM and Sirius: If the law is against you, argue the facts. If the facts are against you, argue the law. But if both the facts and law are against you, change the subject and assert that a nonfalsifiable proposition is dispositive. Here, however, XM and Sirius are hoisted on their own petard. Section 7 of the Clayton Act is an incipency statute. Parties to this proceeding have come forward with serious arguments—supported by credible evidence—that the merger “may . . . substantially . . . lessen competition” or “may . . . tend to create a monopoly” in a relevant market.<sup>57</sup> The burden of rebutting that evidence is now properly on XM and Sirius. Even if an “unusually long” time horizon were permitted under the Merger Guidelines, Dr. Furchtgott-Roth’s claims about future constraints on the market power of XM and Sirius are so speculative that they could not plausibly satisfy the preponderance-of-the-evidence standard.

### **III. AN EVENT STUDY ANALYSIS REJECTS XM’S AND SIRIUS’S PROCOMPETITIVE HYPOTHESIS**

36. Professor Hazlett claims that broadcast radio providers oppose the proposed merger of XM and Sirius because they fear that a combined satellite radio provider would represent a more efficient supplier of radio service, which would accelerate the substitution of listeners from broadcast radio to satellite radio. An alternative hypothesis for why broadcast radio providers oppose the merger is that they fear XM’s and Sirius’s aggressive entry into advertising markets would reduce advertising revenues. It is important to recognize that this alternative hypothesis cannot be considered an “anticompetitive hypothesis” unless the expected harm to broadcasters can be shown to redound to the harm of consumers.

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57. 15 U.S.C. § 18.

37. Under both hypotheses, broadcast radio providers would be harmed. Thus, one cannot focus exclusively on the impact of the merger on broadcast radio providers to determine whether the proposed merger is in fact procompetitive or anticompetitive. If Professor Hazlett's procompetitive hypothesis is true, however, then output for satellite radio should expand. In contrast, if the alternative explanation for broadcasters' protest is correct, then output for satellite radio should contract or remain constant. To test this corollary of Professor Hazlett's hypothesis, I examine the abnormal returns of satellite equipment manufacturers around the day on which the proposed merger of XM and Sirius was announced. For completeness, I also compute the abnormal returns of XM and Sirius, those of publicly traded terrestrial radio broadcasters mentioned by Professor Hazlett in his report, and those of publicly traded terrestrial radio broadcasters not mentioned by Professor Hazlett but identified in the Compustat Data set as terrestrial radio broadcasters.

**A. Abnormal Returns for Equipment Providers**

38. Under Professor Hazlett's procompetitive hypothesis, the proposed merger of XM and Sirius can be expected to have a positive effect on its suppliers of satellite radio equipment: more SDARS subscribers (than expected) imply more sales for satellite radio equipment providers. To test this hypothesis, I identified four publicly traded companies based in the United States that are suppliers of XM or Sirius and whose primary line of business includes satellite radio equipment.<sup>58</sup> These four companies are Audiovox Corporation, Delphi Corporation, Directed Electronics, and Visteon Corporation. These companies received significant media

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58. The equipment suppliers of XM and Sirius are listed on their web sites. *See* What Do I Need to Experience XM Radio – FAQs for the Basics of XM Service, at <http://www.xmradio.com/help/faqs/XM-hardware.xmc> (last accessed June 22, 2007); Sirius Satellite Radio – Hardware Partners, at <http://www.sirius.com/partners/hardware> (last accessed June 22, 2007). I determined whether each manufacturer was based in the United States and publicly traded based on the availability of stock price data from Yahoo! Finance and the availability of 10-K reports filed by the companies with the SEC.

attention around the announcement of the proposed merger of XM and Sirius. Of primary concern to the financial market was the uncertainty surrounding the future of the exclusive distributors for XM and Sirius—Directed Electronics for XM and Audiovox for Sirius.<sup>59</sup> The CEO of Directed Electronics acknowledged this position publicly: “Nobody is talking about those kinds of details at this early date . . . for now and quite a while, the hardware will remain pretty much as is and we anticipate doing business ‘as usual’.”<sup>60</sup> A spokesperson for Delphi made similar comments, saying that it was too early to determine what the impact on the supplier would be.<sup>61</sup> Some analysts predicted that suppliers would not be negatively affected. While noting that takeovers often reduce the number of suppliers, analysts predicted that this was unlikely in the Sirius-XM takeover.<sup>62</sup>

39. Effects on market value related to news events are measured through an event study, which uses the capital asset pricing model (CAPM) to predict the “normal” return of a stock based on observed risk-free rates and current market performance. The CAPM computes the return required on equity capital as the sum of the risk-free rate of return and an equity risk premium that takes into account the extent to which the firm’s stock value moves with the market (beta). The difference between the estimated normal return and the actual return is defined as an “abnormal” return, which can therefore be attributed to unique events experienced by the firm.

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59. Amy Gilroy, *Industry; Xm, Sirius Must Help Avoid Market Confusion*, TWICE (REED BUSINESS INFORMATION), Feb. 21, 2007 (“Industry members note that many questions have yet to be answered such as the status of current distributors. Directed is now the exclusive distributor for Sirius and Audiovox, the same for XM.”).

60. *Id.*

61. Sarah McBride, *How Sirius-XM Deal Would Affect Listeners*, WALL ST. J., Feb. 21, 2007, at D1 (“‘At Delphi Corp., which makes radios for both XM and Sirius, ‘it’s really too early to tell what the impact will be,’ a spokeswoman says.”).

62. *Sirius Plans to Buy XM in \$4.6B Stock Deal; The Proposed Merger Will Likely Face Objections From Terrestrial Radio Companies And Undergo Tough Scrutiny from Regulators That Want To Ensure Consumer Prices Do Not Increase As A Result of Less Competition*, EWEEK, Feb. 20, 2007.

40. The first step in the event study is estimating the CAPM for the company's stock returns, adjusted for dividends. The CAPM is given by the following equation:

$$[1] \quad R_t = R_{ft} + \alpha + \beta(R_{mt} - R_{ft}) + \varepsilon_{it},$$

where  $R_t$  represents the return to the stock<sup>63</sup> on day  $t$ ,  $R_{mt}$  represents the return to the S&P 500 Index on day  $t$ ,  $R_{ft}$  represents the risk-free rate, as measured by the nominal 30-year Treasury bond rate on day  $t$ , and  $\varepsilon_{it}$  represents the residual, or the "abnormal return." The estimate of  $\alpha$ , or "alpha," is the average rate of return the company's stock would expect on a day when the S&P 500 index realized a zero return. The estimate of  $\beta$ , or "beta," represents the sensitivity of the stock's returns to general market movements, or its "systematic risk."

41. Using the CAPM model, I estimate the alpha and beta for each of the four XM or Sirius equipment manufacturers using the ordinary least squares method for Equation 1 over a 200-trading-day estimation period (which is  $t = -250$  to  $-50$ , where  $t = 0$  is February 20, 2007, the first trading date after the announcement of the proposed merger between XM and Sirius). The estimates of alpha and beta for each company are shown in Table 1.

42. Consider now an unexpected announcement on an event day. I consider four windows in which to measure the capital market's reaction to the announcement. The first is a one-day window that considers the abnormal returns solely on the event day itself. The second is a window of three days, from one day before the announcement to one day after the announcement. The third is a window of five days, from two days before the announcement to two days after the announcement. The fourth is a window of eleven days, from five days before the announcement to five days after the announcement. For each window, I compute the cumulative abnormal returns (CAR) for that period. Finally, for each window, I compute the

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63. Dividend payments are counted as returns to a particular stock on the ex-dividend date.

standard errors of the abnormal returns by using information covering the 200-day estimation period.

TABLE 1: CUMULATIVE ABNORMAL RETURNS FOR EQUIPMENT SUPPLIERS OF XM AND SIRIUS AROUND THE MERGER ANNOUNCEMENT

		Audiovox Corp.	Delphi Corp.	Directed Electronics, Inc.	Visteon Corp.
Alpha		0.000	0.013	0.000	0.002
Beta		1.959	0.323	0.953	2.354
1-Day Window	CAR	0.551%	-4.954%	-4.572%*	0.452%
	Z-Stat	0.256	-0.639	-1.898	0.125
	P-value	0.798	0.523	0.058	0.900
3-Day Window	CAR	0.340%	-7.619%	-2.180%	8.411%
	Z-Stat	0.092	-0.548	-0.558	1.380
	P-value	0.927	0.584	0.577	0.168
5-Day Window	CAR	3.490%	-9.252%	-1.624%	5.824%
	Z-Stat	0.786	-0.492	-0.357	0.691
	P-value	0.432	0.622	0.721	0.490
11-Day Window	CAR	4.108%	-24.114%	-6.930%	-0.199%
	Z-Stat	0.572	-0.893	-0.975	-0.060
	P-value	0.567	0.372	0.330	0.952

Note: \* Significant at 10 percent level.

Audiovox market capitalization includes Class A shares only. Audiovox Class B shares are not publicly traded.

Sources: Yahoo! Finance, at <http://finance.yahoo.com>; Federal Reserve Statistical Release H.15, 30-year Treasury constant maturities (nominal) (available at <http://www.federalreserve.gov/releases/h15/data.htm>); AUDIOVOX CORP., ANNUAL REPORT (SEC FORM 10-K) (May 14, 2007); DELPHI CORP., ANNUAL REPORT (SEC FORM 10-K) (Feb. 27, 2007); DIRECTED ELECTRONICS, INC., ANNUAL REPORT (SEC FORM 10-K) (Mar. 16, 2007); VISTEON CORP., ANNUAL REPORT (SEC FORM 10-K) (Feb. 28, 2007).

As Table 1 shows, Delphi and Directed Electronics experienced negative abnormal returns around the date of the announcement of the merger between XM and Sirius. The one-day abnormal return for Directed Electronics was statistically significant at the 10 percent level. Although the negative abnormal return for Delphi was not statistically significant, it certainly was economically significant (an unexplained market capitalization loss of nearly five percent on the date of the merger announcement). The abnormal returns of Audiovox and Visteon were neither statistically nor economically significant.

43. The annual reports of each of the four equipment suppliers in Table 1 cite to the importance of the satellite radio industry to their business. For example, Audiovox lists satellite

radio first, or close to first, in its list of products and industries in its annual report for the fiscal year ended February 28, 2007.<sup>64</sup> Delphi, which has operated under bankruptcy protection since October 2005, cites to the “softening in the U.S. retail satellite radio market” as one of the drivers of the decrease in its revenue from 2005 to 2006.<sup>65</sup> Directed Electronics describes itself as the “largest supplier of aftermarket satellite radio receivers, based on sales.”<sup>66</sup> Directed Electronics also has “exclusive rights to market and sell certain SIRIUS-branded satellite radio receivers and accessories to our existing U.S. retailer customer base. [It] also sell[s] satellite radio products directly to SIRIUS Satellite Radio.”<sup>67</sup> Visteon lists satellite radios as one of primary examples of its latest electronics products.<sup>68</sup>

44. Of the four companies listed in Table 1, Audiovox and Directed Electronics are the only ones that repeatedly cite to the satellite radio industry throughout their annual reports. As the smallest of the four companies listed in Table 1 (based on market capitalization at the time of the merger announcement), it is not surprising that Directed Electronics has consistent negative abnormal returns in each of the four windows around the merger announcement in Table 1. Directed Electronics faces substantial risk from the proposed merger based on the relative importance of satellite radio—especially its exclusive relationships with Sirius—to its business.

45. Note that the negative effects on manufacturers shown in Table 1 reflect the effects of a *possible* merger between XM and Sirius. At the time of the merger announcement,

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64. AUDIOVOX CORP., ANNUAL REPORT (SEC FORM 10-K), at 4 (May 14, 2007).

65. DELPHI CORP., ANNUAL REPORT (SEC FORM 10-K), at 4, 17, 60 (Feb. 27, 2007).

66. DIRECTED ELECTRONICS, INC., ANNUAL REPORT (SEC FORM 10-K), at 3 (Mar. 16, 2007)

67. *Id.*

68. VISTEON CORP., ANNUAL REPORT (SEC FORM 10-K), at 4 (Feb. 28, 2007).

severe regulatory obstacles to the merger were publicly known.<sup>69</sup> Therefore, the market's reaction on February 20, 2007 was discounted by the expected probability that the merger would not ultimately be completed. Thus, the negative abnormal returns for Directed Electronics and Delphi in Table 1 represent lower-bound estimates on the effect of a merger between XM and Sirius on the welfare of equipment makers. This evidence appears to contradict Professor Hazlett's procompetitive hypothesis, which implies that SDARS output would expand as a result of the proposed merger, thereby increasing the expected profits of satellite equipment providers.

**B. Abnormal Returns for Broadcast Radio Providers**

46. For completeness, I also computed the abnormal returns for all of the publicly traded broadcast radio providers that were mentioned in Professor Hazlett's report, as well as other companies classified as radio stations by Compustat.<sup>70</sup> Recall that under both Professor Hazlett's procompetitive hypothesis and the alternative hypothesis, the expected effect of the merger is negative for broadcast radio providers. Table 2 summarizes the results.

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69. Charles Babington and Thomas Heath, *Satellite Radio Firms Plan to Merge; XM, Sirius Face Antitrust Hurdles*, WASH. POST, Feb. 20, 2007, at A01 ("Before XM Satellite Radio Holdings of the District and Sirius Satellite Radio of New York can combine, however, the companies must persuade the Justice Department and Federal Communications Commission that they are complying with antitrust laws, a claim that land-based broadcasters and consumer groups are likely to dispute.").

70. I rely on the Compustat Dataset for my calculations. I included all companies classified as a "radio station." This corresponds with NAICS industry code 515112. I exclude Sinclair because it does not directly own any radio stations, and is therefore classified as a "television broadcaster."

TABLE 2: CUMULATIVE ABNORMAL RETURNS FOR BROADCASTERS AROUND THE MERGER ANNOUNCEMENT

		Beasley	Citadel	Clear Channel	Cox Radio	Cumulus Media	Emmis	Entercom	Grupo Radio Centro	Radio One (Class A)	Radio One (Class D)	Regent Comm	Saga Comm	Salem	Sinclair†
Alpha		-0.003	-0.001	0.001	0.000	-0.001	-0.001	0.000	0.001	-0.002	-0.002	-0.002	-0.001	-0.001	0.001
Beta		1.016	0.910	0.718	1.217	0.974	0.714	0.990	0.398	1.333	1.423	1.122	0.990	1.061	1.247
1-Day Window	CAR	0.712%	-0.176%	-0.353%	-0.074%	-0.693%	-1.672%	-0.356%	1.561%	1.083%	0.787%	-2.104%	-1.961%	9.861%***	3.746%**
	Z-Stat	0.246	-0.100	-0.323	-0.049	-0.342	-0.618	-0.226	0.670	0.518	0.388	-0.870	-0.912	3.642	2.289
	P-value	0.806	0.920	0.747	0.961	0.732	0.537	0.821	0.503	0.605	0.698	0.384	0.362	0.000	0.022
3-Day Window	CAR	1.611%	-0.089%	-0.818%	0.432%	-1.309%	0.434%	-0.414%	1.153%	1.475%	1.472%	-0.357%	-2.198%	9.921%**	6.623%**
	Z-Stat	0.312	-0.026	-0.438	0.171	-0.392	0.089	-0.165	0.331	0.377	0.379	-0.103	-0.695	2.155	2.331
	P-value	0.755	0.979	0.661	0.864	0.695	0.929	0.869	0.741	0.706	0.704	0.918	0.487	0.031	0.020
5-Day Window	CAR	1.599%	-0.885%	-0.771%	-0.637%	-0.586%	0.255%	0.129%	-1.306%	-0.462%	-0.324%	1.097%	-2.891%	9.921%*	5.363%
	Z-Stat	0.242	-0.226	-0.316	-0.166	-0.131	0.038	0.033	-0.242	-0.118	-0.087	0.235	-0.760	1.656	1.552
	P-value	0.809	0.821	0.752	0.868	0.896	0.970	0.974	0.809	0.906	0.931	0.814	0.447	0.098	0.121
11-Day Window	CAR	3.108%	-0.517%	-0.653%	-1.640%	-1.256%	1.176%	0.746%	-0.864%	2.385%	2.509%	4.558%	5.589%	2.104%	16.833%***
	Z-Stat	0.323	-0.084	-0.165	-0.325	-0.203	0.112	0.137	-0.087	0.209	0.227	0.668	0.933	0.230	3.645
	P-value	0.747	0.933	0.869	0.745	0.840	0.911	0.891	0.930	0.834	0.820	0.504	0.351	0.818	0.000

Note: \* Significant at 10 percent level; \*\* Significant at 5 percent level; \*\*\* Significant at 1 percent level. †Sinclair does not directly own any radio stations. It is classified as a "television broadcaster" by Compustat.

Sources: Yahoo! Finance, at <http://finance.yahoo.com>; Federal Reserve Statistical Release H.15, 30-year Treasury constant maturities (nominal) (available at <http://www.federalreserve.gov/releases/h15/data.htm>).

As Table 2 shows, the abnormal returns for all but one broadcast radio provider in my survey (Salem) were neither statistically nor economically significant. A review of news events for Salem reveals that its unexplained returns was likely unrelated to the announcement of the merger. On February 17, 2007, a significant station purchase by Salem Communications was reported.<sup>71</sup> This event likely account for the observed unexplained returns. The findings in Table 2 are not consistent with the procompetitive hypothesis advanced by Professor Hazlett, which predicts a significant decline in the market valuation of broadcast radio providers.

**C. Abnormal Returns for XM and Sirius**

47. Finally, I computed the abnormal returns for XM and Sirius around the announcement of the merger. Under Professor Hazlett's procompetitive theory, the proposed merger would create large private benefits for XM and Sirius in the form of a reduction in fixed costs. Under an alternative, anticompetitive hypothesis, the proposed merger would create monopoly rents for XM and Sirius. Thus, under both hypotheses, the abnormal returns for XM and Sirius are expected to be positive.

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71. *Radio Station Sold; Changes Format*, STATESMAN J., Feb, 17, 2007, at 1B.

TABLE 3: CUMULATIVE ABNORMAL RETURNS FOR XM AND SIRIUS AROUND THE MERGER ANNOUNCEMENT

		XM	Sirius
Alpha		-0.002	-0.002
Beta		1.567	1.200
1-Day Window	CAR (%)	10.008%***	5.778%**
	Z-Stat	2.750	2.219
	P-value	0.006	0.027
3-Day Window	CAR	17.479%***	9.175%**
	Z-Stat	2.798	2.109
	P-value	0.005	0.035
5-Day Window	CAR	16.675%**	6.718%
	Z-Stat	2.070	1.199
	P-value	0.038	0.231
11-Day Window	CAR	13.969%	5.986%
	Z-Stat	1.142	0.758
	P-value	0.253	0.448

Note: \* Significant at 10 percent level ; \*\* Significant at 5 percent level; \*\*\* Significant at 1 percent level.  
 Sources: Yahoo! Finance, at <http://finance.yahoo.com>; Federal Reserve Statistical Release H.15, 30-year Treasury constant maturities (nominal) (available at <http://www.federalreserve.gov/releases/h15/data.htm>); SIRIUS SATELLITE RADIO INC., ANNUAL REPORT (SEC FORM 10-K) (Mar. 1, 2007); XM SATELLITE RADIO HOLDINGS INC., ANNUAL REPORT (SEC FORM 10-K) (Mar. 1, 2007).

As Table 3 shows, the abnormal returns for both XM and Sirius are positive and both statistically and economically significant. Again, it bears emphasis that the merger-specific benefits are discounted by the market in recognition of the possibility that the merger could be blocked by either the Department of Justice or the FCC. Because these results cannot reject or confirm Professor Hazlett's procompetitive hypothesis, one must look to the (negative) abnormal returns of satellite equipment manufacturers.

#### CONCLUSION

48. Professor Hazlett and Dr. Furchtgott-Roth do not apply the current antitrust framework to the facts in the record. Rather, they assert that existing merger law on prices, market definition, competition, and time horizon should not apply to XM and Sirius. In other words, to be able to accept the economic arguments provided by Professor

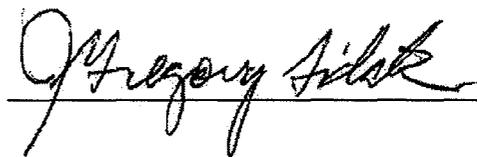
Hazlett and Dr. Furchtgott-Roth to support the merger of XM and Sirius, the Commission would first need to throw existing antitrust law out the window.

49. When analyzed within the legal framework actually used by the Commission and the Department of Justice, the reports of Professor Hazlett and Dr. Furchtgott-Roth fail to offer a single piece of economic evidence that informs the relevant product market definition. Furthermore, I have found, using event-study analysis in this declaration, that an empirical basis exists for the Commission to reject XM's and Sirius's hypothesis that their proposed merger would expand output and decrease prices. Professor Hazlett and Dr. Furchtgott-Roth provide the Commission no economic facts by which it could rule out, by a preponderance of the evidence, that the effect of a merger of XM and Sirius "may be substantially to lessen competition, or to tend to create a monopoly."<sup>72</sup>

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I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on July 24, 2007.

A handwritten signature in cursive script, reading "J. Gregory Sidak", written over a horizontal line.

J. Gregory Sidak

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72. 15 U.S.C. § 18.