



eSAPIENCE CENTER FOR COMPETITION POLICY

**VIEWPOINT:**

**A COMPETITIVE ANALYSIS OF THE PROPOSED XM-SIRIUS SATELLITE  
RADIO MERGER**

**Paul J. Larkin, Jr.**

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## A COMPETITIVE ANALYSIS OF THE PROPOSED XM-SIRIUS SATELLITE RADIO MERGER

by  
Paul J. Larkin, Jr.\*

### I. Introduction

On February 19, 2007, America's two satellite radio companies – XM, based in Washington, D.C., and Sirius, based in New York City – proposed a merger of the two firms. The union would be accomplished by an exchange of shares that would leave each company's stockholders owning half of the new firm, which, according to estimates made at the time of the announcement, would be worth approximately \$11-13 billion. The parties hope to conclude the merger by the end of 2007, with a March 1, 2008, "drop dead" date, allowing either party to walk away from the deal if it has not been approved by then.

The proposal, which had been the subject of speculation for months beforehand, generated immediate controversy within the media industry, on Wall Street, in the legal community, and on Capitol Hill.<sup>1</sup> Proponents of the merger, such as Sirius CEO Mel

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\* Member of the District of Columbia Bar. I would like to thank Don Russell, David Evans, Gail Levine, and Kristan McMahon for their invaluable comments. Any errors remain my own.

<sup>1</sup> For a discussion of the proposed merger and the two companies involved, *see, e.g.*, "Competition and the Future of Digital Music," Hearing Before the Antitrust Task Force of the House Judiciary Comm., 110<sup>th</sup> Cong., 1<sup>st</sup> Sess. (Feb. 28, 2007); Jeffrey H. Birnbaum, "Bit Players XM, Sirius Hold A High-Stakes Merger Game," *washingtonpost.com* (July 25, 2007); Craig Moffett, Judah Rifkin & Michael W. Parker, "XMSR and SIRI: Where to From Here?," Bernstein Research (Feb. 20, 2007); Citigroup, "XM Satellite Radio Holdings Inc (XMSR)" (Jan. 16, 2007); Howard Buskirk, "Outlook Remains Bright [For] Sirius Merger, Says XM CEO Parsons," *Communications Daily* 7-9 (Apr. 12, 2007); Howard Buskirk & Anne Veigle, "Senators Skeptical About Merits of XM-Sirius Merger," *Communications Daily* (Apr. 18, 2007); Paul Gluckman, "Better Than 50-50 Chance Merger Will Get Regulatory Okay, Karmazin Says" *Communications Daily* (Feb. 21, 2007); Anne Veigle, "Senate Judiciary Skeptical of XM-Sirius Merger," *Communications Daily* (Mar. 21, 2007); Howard Buskirk, Anne Veigle & Heather Forsgren Weaver, "Sirius-XM Merger Likely Faces Tough Questions at FCC, DOJ," *Communications Daily* (Feb. 21, 2007); "They Cannot be Sirius," *The Economist* (Feb. 22, 2007); Mark Wienkes, Michael Liddell & Travis

Karmazin, who is projected to become CEO of the new, as-yet unnamed company, said that the union will enhance efficiency in several ways. For example, the merger will eliminate redundant operating expenses in areas such as marketing, customer care, equipment, and research and development. The merger also will allow the new firm to abandon duplicative content offerings, to offer consumers a more extensive range of new programming options, and to target “underserved communities.” And the merger will allow the remaining firm greater buying power in the market for premium content programs, such as professional sporting events.

By contrast, opponents of the merger, such as the National Association of Broadcasters (NAB) and consumer organizations, have argued that the sought-after efficiencies cannot be attained for years, due in part to the presently-incompatible technology used by each company. Critics also maintain that the merger would disserve the public interest by creating a monopoly in the satellite radio industry, in violation of the federal antitrust laws.<sup>2</sup> The NAB in particular has claimed – quite ironically, in fact – that the merger, by eliminating redundant channels and freeing capacity to offer unique

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Kososki, “XM and Sirius merger announcement arrives . . . now what?,” Goldman Sachs (Feb. 20, 2007); David Bank & Ryan Vineyard, “Broadcasting and Cable TV – XMSR and SIRI Should Act on Urge to Merge . . . Now,” RBC Capital Markets (Jan. 12, 2007); Sarah McBride, Dennis K. Berman & Amy Schatz, “Sirius and XM Agree to Merge, Despite Hurdles,” WALL STREET JOURNAL (Feb. 20, 2007); Sarah McBride & Amy Schatz, “If XM, Sirius Pursue Merger, Hurdles at FCC, Justice Loom,” WALL STREET JOURNAL (Jan. 17, 2007); Sarah McBride, “Low Fidelity: Until Recently Full of Promise, Satellite Radio Runs Into Static,” Wall Street Journal (Aug. 15, 2006); Sam Diaz, “XM-Sirius Debate Comes Down to Competition,” WASHINGTON POST (Mar. 31, 2007); Charles Babington, “Radio Deal Could Face Technical Difficulties,” WASHINGTON POST (Mar. 19, 2007); Charles Babington & Thomas Heath, “Satellite Radio Firms Plan to Merge,” WASHINGTON POST (Feb. 20, 2007); Thomas Heath, “Satellite Radio’s XM, Sirius to Merge,” WASHINGTON POST (Feb. 19, 2007); Chris Kirkham, “Sirius Sees Benefits in Potential Merger with XM” WASHINGTON POST (Dec. 8, 2006); Boyd Peterson, “In a Merger Made in Heaven (Literally), XM and Sirius Finally Merge,” Yankee Group (Feb. 20, 2007). The factual and economic analysis in this paper relies on the discussion in those publications.

<sup>2</sup> “A monopolist in economic theory is the sole producer of a good or service for which there are no close substitutes. Some impediment also exists which prevents other firms from entering the market and competing with the incumbent.” Michael A. Utton, *Market Dominance and Antitrust Policy* 3 (2d ed. 2003). The federal government will apply a lower standard. See note 13 and accompanying text below.

programs, would enable the newly-merged firm to compete in the arena for local services, such as local news, which is beyond the licenses granted to XM and Sirius. Different commentators on Wall Street and elsewhere have expressed varying degrees of optimism and pessimism about the likelihood of the proposed merger being consummated.<sup>3</sup>

Ultimately, however, the opinions that matter are those of the Antitrust Division of the United States Department of Justice (DOJ)<sup>4</sup> and the Federal Communications Commission (FCC). Both must approve the merger before it can be consummated and a new company created. Those two agencies have different, albeit slightly overlapping, responsibilities in this regard. DOJ must decide whether the proposed merger would violate the federal antitrust laws by creating a monopoly. By contrast, the FCC must decide whether the union of two previously competing communications licenses satisfies the “public interest” requirement of the federal communications laws.

Before discussing those specific issues, some general background to the transaction would be helpful.

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<sup>3</sup> Compare, e.g., Mark Wienkes, Michael Liddell & Travis Kososki, “XM and Sirius merger announcement arrives . . . now what?,” Goldman Sachs 5 (DOJ or the FCC are likely to block the merger) with, e.g., Boyd Peterson, “In a Merger Made in Heaven (Literally), XM and Sirius Finally Merge,” Yankee Group (DOJ and the FCC are likely to approve the merger). Other commentators have mooted why XM and Sirius decided to press forward with a merger *now*. Some have concluded that the two companies likely believed that a merger was now or never, because DOJ and the FCC would be less likely to approve such a merger during a presidential election year or under a Democratic Administration.

<sup>4</sup> The Hart-Scott-Rodino Antitrust Improvements Act of 1976, 15 U.S.C. § 18a, requires firms that propose mergers or acquisitions of a certain size to notify the antitrust agencies – namely, the Antitrust Division of the Justice Department and the Federal Trade Commission – and to wait a certain period before consummating the transaction, in order to allow those agencies to review and to seek judicial relief blocking the merger or to propose asset divestitures that avoid an anticompetitive effect of the merger. The Antitrust Division shares with the Federal Trade Commission the responsibility to review proposed mergers. By agreement, the Antitrust Division is responsible for reviewing mergers in the telecommunications industry.

## II. Background

The Federal Communications Act of 1934<sup>5</sup> plays three roles in this matter. That law reserves the broadcast airwaves exclusively to the federal government, it prohibits companies from broadcasting without a license from the FCC, and it authorizes the FCC to issue such licenses in the “public interest.” XM and Sirius are the only two companies licensed by the FCC to offer satellite radio in the United States.

Launched early in this century (XM in November 2001; Sirius in July 2002), these two companies have high fixed costs and (relatively) low marginal costs. Their business model is to attract listeners (principally, although not exclusively, while driving) to various types of programs, such as music of different genres, professional sporting events, or so-called “shock jock” talk radio on a commercial-free (or nearly so) basis. Additionally, to enhance the attractiveness of their programming, both companies have sought to obtain perceived high-quality performers and events. For example, XM broadcasts Major League Baseball, the National Hockey League, and NASCAR races, as well as Oprah Winfrey. Not to be outdone, Sirius broadcasts the National Football League, the National Basketball Association, and Martha Stewart. Included among the types of programs available to subscribers are programs by various personalities, such as Howard Stern, whose broadcasts might violate the federal ban on the over-the-air broadcast of “obscene, indecent, or profane language.”<sup>6</sup> In addition, each firm has entered into a partnership with various automobile companies (e.g., Ford and BMW for Sirius; Acura and GMC for XM) in which new cars will come equipped with its satellite radio

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<sup>5</sup> 47 U.S.C. § 1 *et seq.*

<sup>6</sup> Section 1464 of Title 18, United States Code, prohibits radio licensees from broadcasting such material. *See FCC v. Pacifica Found.*, 438 U.S. 726 (1978).

for a free trial period. The companies charge users a monthly fee of approximately \$13 for the opportunity to hear these broadcasts.<sup>7</sup> Together, XM and Sirius have (approximately) more than 11 million subscribers.<sup>8</sup>

Yet, despite that subscription base and initial optimism that XM and Sirius had tapped into a promising new revenue source, neither company has made a profit.<sup>9</sup> A variety of factors are blamed for these losses, such as the considerable expense of some of the purchased content<sup>10</sup> and the increasingly widespread use of iPod and other MP3 digital music players or cell phone music players, as well as more traditional customer reliance on CDs or terrestrial broadcast radio. In fact, both still report suffering heavy losses despite their predictions that they would need 4 million customers to break even, a number that both firms already surpassed.<sup>11</sup> XM and Sirius took different approaches to overcome their problems. Sirius tried to stimulate subscriber growth by offering rebates and free trial periods. XM, by contrast, sought to pare down its costs by reducing advertising and rebates.<sup>12</sup> Neither approach, however, has yet enabled either firm to generate a profit.

With that background in mind, I now turn to the potential effect of the proposed XM-Sirius merger on competition.

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<sup>7</sup> Sirius also offers a lifetime service fee of \$500, while XM offers a \$10 monthly fee for a three-year subscription. Sarah McBride, "Low Fidelity: Until Recently Full of Promise, Satellite Radio Runs Into Static," WALL STREET JOURNAL.

<sup>8</sup> *Id.*

<sup>9</sup> In 2006, the companies combined losses are estimated at \$1.6 billion. See Jeffrey H. Birnbaum, "Bit Players XM, Sirius Hold A High-Stakes Merger Game," washingtonpost.com (July 25, 2007).

<sup>10</sup> Sirius spent \$220 million to acquire the rights to the National Football League for seven years and \$500 million for Howard Stern for five years. XM spent \$650 million to broadcast Major League Baseball for 11 years. McBride, "Low Fidelity: Until Recently Full of Promise, Satellite Radio Runs Into Static," WALL STREET JOURNAL.

<sup>11</sup> XM in 2005 and Sirius in early in 2006. *Id.*

<sup>12</sup> *Id.*

### III. Competitive Analysis

The Clayton Act of 1914 (as amended), enforced by DOJ, prohibits a merger that would substantially lessen competition or tend to create a monopoly.<sup>13</sup> The contemporary justification for such a ban is to avoid the anticompetitive effects, including the creation of “dead-weight loss,” that stems from the presence of a (non-natural) monopoly.<sup>14</sup> That issue, which is likely to be hotly disputed between the advocates for and critics of the merger, is relatively objective in nature. By contrast, the FCC enforces the federal communications laws, which allow a merger between radio licensees (or, more technically, the transfer of the licenses that accompany such a merger) only if the transaction is in the “public interest.” That standard is a far broader and more subjective one than the standard applied by DOJ. The “public interest” standard not only allows the FCC to disagree with the Justice Department on the competitive effect of the merger, but also to consider factors that are not necessarily related to competition, such as whether the new company will provide diverse programming services to presently underserved communities. That firm could offer to serve various constituencies that presently may believe that they are underserved by audio programming – such as foreign nationals (*e.g.*, Russian émigrés) or national origin groups (*e.g.*, the Hispanic or Asian-Pacific communities) – which could encourage affected parties to urge the FCC to approve the

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<sup>13</sup> Section 7 of the Clayton Act prohibits any mergers or any stock or asset acquisition where the effect of the transaction “may be substantially to lessen competition, or tend to create a monopoly in a relevant market.” 15 U.S.C. § 18.

<sup>14</sup> Monopolies impose three types of social costs: (1) X-inefficiency – that is, the inefficiency that comes from not being challenged competitively; (2) allocative inefficiency – that is, the inefficient societal allocation of resources; and (3) rent-seeking behavior – that is, the expenditure of resources by firms in an attempt to achieve a monopoly. Utton, *Market Dominance and Antitrust Policy* 19-24. The subject of natural monopolies is discussed below.

merger. The result is that the FCC determination well could turn on factors not even remotely related to the effect of the merger on competition.

For purposes of this analysis, I will leave to one side the noncompetitive or communications policy aspects of the proposed XM-Sirius merger<sup>15</sup> (particularly the political influences that can be brought to bear by Congress on the FCC) except insofar as they directly bear on the issue whether the merger would be likely to violate the federal antitrust laws. Moreover, while the FCC could disagree with DOJ over the effect of the merger on competition,<sup>16</sup> I will assume that the FCC will defer to the judgment of DOJ on matters involving the competitive analysis of a proposed merger, a result endorsed by various commentators on this issue.<sup>17</sup> The analysis that follows will focus on the competitive aspects of the proposed XM-Sirius merger.

### ***A. Market Power – Merger to Monopoly***

**1. *In general:*** Beginning in 1968, the DOJ and the FTC periodically have issued and revised guidelines for analyzing the potentially anticompetitive effect of a horizontal merger of competitors.<sup>18</sup> Under the current version of the DOJ-FTC Merger Guidelines,<sup>19</sup> the threshold step in the antitrust analysis is to define the relevant product and geographic

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<sup>15</sup> For instance, the NAB, an opponent of the merger, has argued that XM has had terrestrial repeaters that operated beyond the limits imposed by FCC rules and that those violations justify the FCC in refusing to approve the merger. Howard Buskirk, “NAB Cites Noncompliant repeaters as XM-Sirius Merger Concern,” COMMUNICATIONS DAILY 1-2 (Apr. 30, 2007).

<sup>16</sup> The FCC's current rules bar a single company from controlling the satellite-radio market, although those rules could be changed if the companies could demonstrate the merger would offer consumers would both more choice and affordable prices. Birnbaum, “Bit Players XM, Sirius Hold A High-Stakes Merger Game,” washingtonpost.com (July 25, 2007).

<sup>17</sup> See, e.g., Antitrust Modernization Comm'n, *Report and Recommendations* (April 2007) (hereafter AMC Report).

<sup>18</sup> See AMC Report 51-53.

<sup>19</sup> Department of Justice & Federal Trade Comm'n, *Horizontal Merger Guidelines* (Revised 1997); see also Department of Justice & Federal Trade Comm'n, *Commentary on the Horizontal Merger Guidelines* (2006).



markets.<sup>20</sup> The inquiry is undertaken from the perspective of a consumer, and the focus of the inquiry, generally speaking, is to determine what other goods and services act as substitutes for the items under review and therefore constrain the ability of the newly-merged firm to raise prices to monopoly levels. Once the relevant market has been defined, the analysis turns to other factors, such as calculation of market share, examination of competitive interactions, determination of conditions of entry, and analysis of other structural market features.

The principal competitive issue in the XM-Sirius merger likely will involve the determination of the relevant product market. That is, is the relevant product market satellite radio alone, or does the relevant product market include other audio entertainment options, such as terrestrial AM-FM radio, CDs, DVDs, HD (High Definition) radio, Internet radio, and iPods or other MP3 players? The other factors noted above are likely to be less important in this particular case. Why? Since there are only two satellite radio firms, if "satellite radio" is the relevant market, the market share of the new, combined firm would be 100%. There can be no competitive interaction between firms when there is but one firm in the market, and federal law and FCC decisions limit entry by others into the broadcasting market. The market definition, accordingly, is likely to be the dispositive issue in this matter.

The DOJ-FTC Merger Guidelines define a product market as being the smallest group of products that would allow a hypothetical monopolist to impose what has been termed as a "small but significant non-transitory increase in price," colloquially termed

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<sup>20</sup> For a discussion of the DOJ-FTC Horizontal Merger Guidelines, *see, e.g.*, ABA Antitrust Section, *Telecom Antitrust Handbook* 57-142 (2005).

the SSNIP test, which is generally defined to mean a 5% increase above the competitive price. The geographic market component of the analysis examines the options that are available to consumers in a particular locality. Once the relevant product and geographic markets have been defined, the next step is to determine whether the merger is likely to have anticompetitive effects. That step requires consideration of the market share of each firm seeking to merge, the level of concentration in the market (e.g., the four-firm concentration ratio), and trends in the level of concentration. Particularly important in this regard is calculation of the Herfindahl-Hirschman Index (HHI), which measures market concentration by summing the squares of the market shares of the firms in the relevant market. The resulting HHI and the change in the HHI from the pre-merger market both are relevant to the government's decision whether to challenge a merger.<sup>21</sup> Also relevant are factors such as non-statistical evidence that the merger will or will not reduce competition, such as the existence and strength of barriers to entry, the presence or absence of "fringe" firms that could enter the relevant markets, along with evidence that the merger may produce efficiencies that arguably may offset the loss to competition from the merger.

**2. *The relevant product market:*** What, then, is the relevant product market?

a. Were the product market defined expansively to include terrestrial AM-FM radio, CDs, DVDs, HD (High Definition) radio, Internet radio, and iPods or other MP3 players, the total number of audio entertainment subscribers would be sufficiently large

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<sup>21</sup> If the HHI is below 1,000, the government ordinarily will not challenge the merger, because anticompetitive effects are deemed unlikely. If the HHI is between 1,000 and 1,800 and the change is less than 100, the government is unlikely to challenge the merger, but if the change exceeds 100, then the government likely will do so. If the HHI exceeds 1,800, then a government challenge is unlikely if the change is less than 50, but is likely or presumed if the change exceeds 50. *Telecom Antitrust Handbook* 66.

that the XM-Sirius merger would not pose a risk of creating a monopoly. Indeed, the number of satellite radio listeners pales by comparison to other forms of audio entertainment. XM and Sirius combined have only 14 million subscribers, yet there are 223 million AM and FM radio listeners, 218 million wireless subscribers, and 39 million iPod users. Satellite radio therefore has only 3% of the market for audio entertainment if these alternatives are considered. While there is no hard-and-fast market share number that establishes monopoly status, it is fair to say that no contemporary court or antitrust commentator would treat a 3% market share as creating a monopoly.<sup>22</sup>

**b.** By contrast, if the market were defined narrowly as being limited only to satellite radio companies, then the merger would leave just one firm in that market, literally creating a monopoly. Other antitrust statistical guideposts also would condemn the merger. The Four-Firm Concentration Ratio – actually, here there are only two firms – would be 100. The post-merger HHI would be at its theoretical maximum of 10,000 and would increase by (roughly) 4800 from its pre-merger HHI of 5200. Accordingly, if the market were narrowly limited to satellite-delivered audio entertainment, the statistical factors normally used by DOJ to gauge the competitive effect of the merger strongly militate against permitting the XM-Sirius merger to go forward.

**c.** A third option lies between those two extremes. It is possible that terrestrial radio (AM and FM) can serve as an alternative to satellite radio for some people, even if not for all, for the following reasons. Satellite radio has a better “quality” than terrestrial radio, since satellite radio offers more channels and a greater range of use, but at some

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<sup>22</sup> See generally ABA, Section of Antitrust Law, *Market Power Handbook: Competition Law and Economic Foundation* 83-84 (2005).

point listeners will not be willing to pay for that higher quality. A subscription to satellite radio not only requires payment of a monthly fee, but also purchase of dedicated equipment, which is a sunk or fixed cost to consumers. Some listeners will be willing to spend the additional amount, perhaps because they value the programs offered only on satellite radio, perhaps because they must drive long distances in areas where terrestrial radio stations are few and far between, perhaps for the cache of having satellite radio, or perhaps for another reason. But at some point even devotees of satellite radio will feel the pinch of the increased costs and would be willing to switch to terrestrial radio, or maybe even to enjoy the sounds of silence.

**3. Potential entry:** Recognizing that the traditional statistical tools argue against allowing the merger to go forward, XM and Sirius may focus not on the existence of actual present rivals, but on the possibility that future entrants will serve as competitors. The argument will go as follows: In theory, companies on the competitive “fringe” of a market can exert some degree of price discipline on incumbents if the latter raise their prices to monopoly levels. If the newly-merged satellite radio firm sought to engage in monopoly pricing, those supracompetitive prices will attract entry from other radio stations into the satellite market. Over time that entry will continue until there is a sufficient number of companies to reduce the price to a competitive level. Accordingly, XM and Sirius will contend, any monopoly profits that the newly-merged firm can obtain will be short-lived, because entry will result in competition that drives down the price of satellite radio. As long as there is the possibility of entry by additional firms, they will claim, consumers are not likely to be gouged by the new XM-Sirius.

Relevant here are the concepts of “potential competitors” and “contestable markets.” Potential competitors are firms that do not currently compete against an incumbent, but could do so without undue delay or cost. Contestable markets include markets that have attributes of natural monopoly, but in which there is free entry and exit. The cost-minimizing structure for such markets may call for a single seller, but the existence of fringe firms that easily can enter the market restrains the tendency of the natural monopolist to engage in monopoly pricing. The result is that competition *for* the market restrains pricing behavior nearly as much as would competition *within* the market. Prerequisites for contestable market theory are (1) free entry and exit – or, put differently, no or minimal sunk costs – and (2) the threat of entry. The existence of contestable markets is one reason why a firm’s large market share does not necessarily mean that it has monopoly power. If a firm cannot increase price by decreasing supply because of the presence of potential entrants, then the firm has no monopoly power. But the theory may not be “robust”; that is, small changes in either of the two prerequisites noted above – can upset the theory. That is because the existence of some amount of sunk costs and the ability of an incumbent firm quickly and flexibly to react to entry can defeat the ability of a fringe firm to have a price-lowering effect on an incumbent.<sup>23</sup>

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<sup>23</sup> See, e.g., Elizabeth E. Bailey, *Contestability and the Design of Regulatory and Antitrust Policy* (1981), reprinted in Jack C. High & Wayne E. Gable, eds., *A Century of the Sherman Act: American Economic Opinion, 1890-1990*, at 171, 171 (1992); William J. Baumol, *Contestable Markets: An Uprising in the Theory of Industry Structure* (1982), reprinted in Jack C. High & Wayne E. Gable, eds., *A Century of the Sherman Act: American Economic Opinion, 1890-1990*, at 179, 182 (1992) (“A contestable market is one into which entry is absolutely free, and exit is absolutely costless.”); Franklin M. Fisher, *Diagnosing Monopoly* (1979), reprinted in John Monz, ed., *Industrial Organization, Economics and the Law: Collected Papers of Franklin M. Fisher* 10-15 (1991); George E. Garvey & Gerald J. Garvey, *Economic Law and Economic Growth* 95-96 (1990); Herbert Hovenkamp, *The Antitrust Enterprise* 243 (2005) (sunk costs dilute the effect of contestable markets); see also Utton, *Market Dominance and Antitrust Policy* 37-38, 127-28.

In this case, however, the potential competitor and contestable market principles are not likely to aid XM and Sirius. The reason is that entry into the satellite radio product market is difficult, for several reasons. First, there are sizeable fixed (if not sunk) costs necessary for entry, such as in-car devices to receive and translate the satellite signals, as well as the cost of launching satellites or buying satellite time from someone else. Thus, even if the need to expend a considerable amount of money on such fixed costs is not technically a “barrier to entry,”<sup>24</sup> the expense involved will make it difficult for many firms either to finance entry themselves or to obtain the necessary funds from the capital markets. Second, the federal government must approve all entries into the satellite radio market. The cost of obtaining a license from the FCC is an additional burden that must be borne by firms trying to enter the satellite technology field. Third, insofar as there are significant “switching costs” in changing from XM or Sirius to a new satellite radio provider, the merged XM-Sirius firm may have a sufficient “first mover” advantage to prevent entrants from obtaining a large enough subscriber base to be able to take advantage of economies of scale.<sup>25</sup> For these reasons, it is unlikely that XM and Sirius will be able to defend the proposed merger by reliance on the potential competitor and contestable market principles.

To be sure, if the market were more broadly defined so as to include AM and FM radio, iPods, and the like, then new (even existing) firms would come forward, enter, and compete against the XM-Sirius survivor. But if the market were defined with sufficient

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<sup>24</sup> On the different definitions of that term, see ABA, Section of Antitrust Law, *Market Power Handbook: Competition Law and Economic Foundation* 123 (2005).

<sup>25</sup> For a discussion of “switching costs,” “first mover” advantages, and similar information technology principles, see, e.g., Jeffrey H. Rohlfs, *Bandwagon Effects in High Technology Industries* (2000); Carl Shapiro & Hal R. Varian, *Information Rules* (1999); Hal Varian, Joseph Farrell & Carl Shapiro, *The Economics of Information Technology* (2004).

breadth to reach those alternative means of audio entertainment, then there would be no need to resort to potential competitor and contestable market principles, because the basic product market would be sufficiently large that the XM-Sirius merger would not result in a merger to monopoly.

**4. *The relevant geographic market:*** The relevant geographic market could be deemed national in scope regardless of how narrowly or broadly the product market is defined. Satellite radio broadcasts on a nationwide basis. While terrestrial radio stations lack the power or authority to do so, other forms of audio entertainment can fill that void, because they are portable. CDs, DVDs, iPods, and other MP3 players all can be transported by car. In fact, many new model cars offer the option of being equipped with an iPod or MP3 adapter. DOJ therefore could conclude that satellite and terrestrial radio, as well as other audio entertainment providers, compete in all of the lower 48 states.

But the geographic market also could be smaller, or regional in fact. It may be the case that there is a greater demand for satellite radio in rural and sparsely-populated areas than in urban settings. Urban areas offer a variety of AM and FM terrestrial radio stations to choose from, because of their population density. By contrast, there are long stretches of roads in the Rocky Mountain region where there are too few listeners for many stations to be successful and too many mountains for line-of-sight requirements to be met. In those regions, satellite radio may be the only radio option. As a result, it may be that DOJ will find that satellite and terrestrial radio compete in some geographic areas, but not in others.

**B. Market Power – Merger to Monopsony**

An interesting aspect of the merger is the claim made by its proponents that consolidation will enable the one remaining firm to have greater buying power in the market for premium content programs, such as the Howard Stern show or professional football, which can result in lower prices for consumers. In essence, the argument is that consumers benefit from a merger-to-monopsony. That is, the merger enables the one surviving firm to pay less for certain programs that cannot be broadcast by terrestrial radio consistent with the obscenity, indecency, and profanity ban discussed above, and that firm can pass those cost savings downstream to subscribers. This aspect of the merger raises an interesting issue of competition law because it is unclear whether the relevant focus is the upstream or downstream market. Two decisions by the Supreme Court in the area of predatory conduct – *Brooke Group v. Brown & Williamson Tobacco Corp.*,<sup>26</sup> which involved predatory pricing, and *Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co.*,<sup>27</sup> which involved predatory buying – are instructive here.

*Brooke Group* involved a challenge to volume discounts. The Supreme Court rejected “the notion that above-cost prices that are below general market levels or the costs of a firm’s competitors inflict injury to competition cognizable under the antitrust laws.”<sup>28</sup> Instead, it imposed two necessary requirements on plaintiffs seeking to hold a defendant liable under the antitrust laws for price discounts. First, “a plaintiff seeking to establish competitive injury from a rival’s low prices must prove that the prices

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<sup>26</sup> 509 U.S. 209 (1993).

<sup>27</sup> 127 S. Ct. 1069 (2007).

<sup>28</sup> 509 U.S. at 223.



complained of are below an appropriate measure of its rival's costs."<sup>29</sup> The Court so ruled in part because price discounts generally benefit consumers and any less protective and objective standard "is beyond the practical ability of a judicial tribunal to control without courting intolerable risks of chilling legitimate price cutting."<sup>30</sup> Second, because antitrust law protects *competition* rather than particular *competitors*, a plaintiff must further prove some demonstrable injury to long-run competition from a discount.<sup>31</sup> The relevant competitive injury would result from a rival being driven from the market with the prospect of recoupment of short-term discounts via long-term monopoly pricing or from a rival being disciplined with the hope of persuading it to engage in supracompetitive oligopoly pricing.<sup>32</sup> Accordingly, the Court added the additional requirement that a plaintiff prove that the defendant had "a reasonable prospect" or "a dangerous probability" of recouping its investment in below-cost prices.<sup>33</sup> Without proof of both elements, a case must be dismissed.<sup>34</sup>

In *Weyerhaeuser*, the Supreme Court applied the *Brooke Group* approach to a claim that above-cost single-product purchases were anticompetitive. The Court began by reaffirming the principles in *Brooke Group*.<sup>35</sup> The Supreme Court reiterated that pricing conduct that is a commonplace part of legitimate competition in the market must not be chilled by uncertain liability standards. "We were particularly wary [in *Brooke Group*] of allowing recovery for above-cost price cutting because allowing such claims could,

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<sup>29</sup> *Id.* at 222.

<sup>30</sup> *Id.* at 223.

<sup>31</sup> *Id.* at 224-25.

<sup>32</sup> *Id.* at 225.

<sup>33</sup> *Id.* at 224.

<sup>34</sup> *Id.* at 226.

<sup>35</sup> 127 S. Ct. at 1074-75.

perversely, ‘chill legitimate price cutting,’ which directly benefits consumers.”<sup>36</sup> The Court acknowledged that “discouraging a price cut and \* \* \* depriving consumers of the benefits of lower prices \* \* \* does not constitute sound antitrust policy.”<sup>37</sup> The Court then compared the economics and practice of predatory pricing and predatory bidding, concluding that, since the economics underlying the former is “analytically similar” to that of the latter and that the claims of injury also were “strikingly similar,” the same antitrust rule should apply in both settings.<sup>38</sup>

Of particular relevance here, the reasoning in *Weyerhaeuser* suggests that a monopsony’s buying decisions present no antitrust concern if there is no anticompetitive downstream effect on the ultimate consumer. The defendant in *Weyerhaeuser* was a market intermediary; it purchased inputs from upstream suppliers, and combined them with other inputs to create products sold downstream. The Court held that a plaintiff who sues such an intermediary for “predatory bidding” must prove, among other things, that the defendant’s supposedly inflated purchase prices “on the buy side \* \* \* caused the cost of the relevant output [on the sell side] to rise above the revenues generated in the sale of those outputs.”<sup>39</sup> That is, the Court indicated that the focus of a predatory buying challenge to the actions of a monopsonist should be on the output and pricing decisions of the monopsonist, not on the effect that the monopsonist has on other competitors for upstream inputs.

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<sup>36</sup> *Id.* at 1074 (quoting *Brooke Group*, 509 U.S. at 223-24).

<sup>37</sup> *Id.* at 1074-75 (quoting *Brooke Group*, 509 U.S. at 224); *id.* at 1075 (cost of erroneous findings of predatory-pricing liability is “quite high” because “the mechanism by which a firm engages in predatory pricing—lowering prices—is the same mechanism by which a firm stimulates competition”; “mistaken findings of liability would chill the very conduct the antitrust laws are designed to protect”) (citations omitted).

<sup>38</sup> *Id.* at 1076-77.

<sup>39</sup> 127 S. Ct. at 1078.

That line of reasoning would be relevant to merger-to-monopsony cases, like this one. A firm that is a monopsonist *buyer* of an input is not necessarily a monopoly *seller* of an output, so the outcome that a newly-merged company would be a monopsonist buyer would not itself condemn the merger. Consider a commodity like wheat. Since the market for wheat is world-wide, a domestic merger that created a domestic monopsony purchaser of wheat would be not be unlawful without more, the argument would go, because the merger could not itself lead to an increase in the worldwide or domestic price of wheat.

To be sure, the issue before the Court in *Weyerhaeuser* did not require the Court to adopt any such rule, and the opinion does not claim that it does. The issue before the Supreme Court in *Weyerhaeuser* also did not involve a merger, which would focus attention on this matter. But the *Weyerhaeuser* opinion does pose the question for future cases about how the Court will weigh the effect of a firm's actions on companies that are one stage downstream versus the effect those actions have on consumers. Were the courts or the Justice Department to endorse that approach, a merger-to-monopsony would not pose a risk of an anticompetitive outcome unless there is a demonstrable likelihood that the monopsonist would reduce its sales (or quality) in the downstream market, leading to price increases (or reduced quality) for consumers.

### ***C. Potential Efficiencies***

Do efficiencies from the merger offset the anticompetitive effects of a merger-to-monopoly or merger-to-monopsony in this field? Over the past few years, the Supreme

Court and various commentators have argued, outside the context of mergers, that the antitrust law should not readily condemn monopolies. “The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices – at least for a short period – is what attracts ‘business acumen’ in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive *conduct*.”<sup>40</sup> Former Treasury Secretary Lawrence Summers made the same point: “The only incentive to produce anything is the possession of temporary monopoly power – because without that power the price will be bid down to marginal cost and the high initial fixed costs cannot be recouped. So the constant pursuit of that monopoly power becomes the central driving thrust of the New Economy. And the creative destruction that results from all that striving becomes the essential spur of economic growth.”<sup>41</sup> Nonetheless, despite the belief that, in the past, antitrust law had too frequently and too quickly condemned monopoly, it is unlikely that the sought-after efficiencies will salvage this merger.

To start, it is doubtful that the recently-expressed approval of monopolies extends beyond the limited context in which the monopolist acquires its market power through innovation or internal efficiencies, rather than via consolidation. Also, as discussed

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<sup>40</sup> *Verizon Communications v. Law Offices of Curtis v. Trinko*, 540 U.S. 398, 407 (2004) (emphasis in original); accord Richard A. Posner, *Antitrust in the New Economy*, 68 ANTITRUST L.J. 925, 930 (2001); Richard A. Posner, *Natural Monopoly and its Regulation* 20 (Cato Inst. Reprint 1999); see Franklin M. Fisher, *Diagnosing Monopoly* (1979), reprinted in John Monz, ed., *Industrial Organization, Economics and the Law: Collected Papers of Franklin M. Fisher* 16-21, 27.

<sup>41</sup> Robert W. Hahn, *A Primer on Competition Policy and the New Economy*, THE MILLIKEN INST. REV. 34, 37 (1<sup>st</sup> Quarter March 2001) (AEI-Brookings Joint Center for Regulatory Studies Feb. 2001), available at <http://www.aei-brookings.org/admin/authorpdfs/page.php?id=141> (last visited April 7, 2006).

above, the ability to act as the sole buyer for certain types of broadcast programs raises its own competition-antitrust issue.

Moreover, it is not clear exactly what efficiencies the new XM-Sirius will achieve and when it will do so. Commentators have noted that XM and Sirius have not precisely defined the type and amount of efficiencies that they hope to achieve, but there is reason to believe that the efficiencies will, at the least, principally come on stream only over time. The surviving firm can seek to eliminate duplicative components in departments such as advertising, marketing, legal, and the like, but the biggest hurdle for the new firm immediately to overcome is the difference in the technologies used by XM and Sirius. The firms say that an effort is underway to develop a form of “middleware” that will enable XM receivers to play music broadcast by Sirius (and vice versa), but if and when that breakthrough will occur is uncertain. Moreover, the merged firm hopes to be able to reduce the cost of purchasing certain types of premium content by being the only buyer, but the current, high-price contracts do not expire for several years and presumably cannot be renegotiated until then. As the result, at least one observer has concluded that even if the newly-merged firm eventually were to obtain roughly \$12 billion in efficiency, the firm will not see the majority of the benefits of synergies for at least four to seven years.<sup>42</sup> Given the length of that period, it is unlikely that DOJ will treat these efficiencies as being sufficient to overcome the anticompetitive effects of the proposed merger-to-monopoly.

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<sup>42</sup> Mark Wienkes, Michael Liddell & Travis Kososki, “XM and Sirius merger announcement arrives . . . now what?,” Goldman Sachs 4.

#### ***D. Failing Firm Defense or Natural Monopoly and Regulation-Like Conditions***

Another issue that likely will arise is whether the merger should be allowed to go forward under the theory that, absent the merger, neither firm can survive, and the public is better served by one monopoly than by losing this service altogether.<sup>43</sup> Another way to look at the merger is this: Satellite radio is a “natural monopoly,” so the proposed XM-Sirius merger will enhance overall efficiency even though the merger will eliminate rivalry between the two companies.

A natural monopoly raises competitive concerns different from the ones present in the case of an “artificial” monopoly. The reason is that it may be economically efficient to allow one firm to provide service in such an industry and to regulate its prices through an administrative process in order to avoid the harms of monopoly pricing.<sup>44</sup> A natural monopoly is a company whose output is characterized by increasing returns to scale and decreasing long-term average costs, such as the local “loop” in a telecommunications system. Said differently, if the entire demand for a product within a relevant market can be satisfied at the lowest cost by one firm rather than by two or more, the market is a natural monopoly, whatever the actual number of firms in it.<sup>45</sup> If such a market contains more than one firm, either the companies will resolve themselves into one through mergers or failures, or production will continue to consume more resources than

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<sup>43</sup> Howard Buskirk, “Outlook Remains Bright [For] Sirius Merger, Says XM CEO Parsons,” *Communications Daily* 7-9 (Apr. 127, 2007): “The outlook is mixed for XM if the merger fails, said Sanford C. Bernstein & Co. in a research note. \* \* \* ‘Unless the merger with Sirius is approved, an outcome which, despite management assurances here today, looks at least somewhat unlikely – a longer term resetting of the fixed cost bar will be necessary. Without it, a “limp-along” future may be what’s in store.’”

<sup>44</sup> The definition and treatment of natural monopolies are discussed at Edgar K. Browning & Mark A. Zupan, *Microeconomic Theory and Applications* 437-41 (9<sup>th</sup> ed. 2006) and Richard A. Posner, *Natural Monopoly and Its Regulation* (Cato Inst. Reprint 1999).

<sup>45</sup> Dennis W. Carlton & Jeffrey M. Perloff, *Modern Industrial Organization* 104 (4<sup>th</sup> ed. 2005).

necessary. In the first case, competition is short-lived; in the second, competition is inefficient.<sup>46</sup>

The problem in this regard is that the Justice Department is not a regulatory agency, and its mission in reviewing proposed mergers is not to devise a new regulatory scheme. The Justice Department reviews proposed mergers for consistency with the federal antitrust laws, and antitrust is aimed at achieving the conditions of a competitive market. In contrast to regulation, antitrust law is not designed to replicate the results of competition via price regulation or to correct inherent structural anomalies such as natural monopoly. Judges and juries are not authorized, qualified, or equipped to decide whether a price is “reasonable” in the abstract or as applied. That task, if appropriate for anyone, is left to administrative agencies.<sup>47</sup>

Does this mean that regulatory principles will play no role in the DOJ review process? Perhaps not. As part of the Hart-Scott-Rodino pre-merger review process, DOJ can require that firms agree to various revisions to a proposed merger in order for the union to be approved. The parallel is to plea bargaining in the criminal context or

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<sup>46</sup> The courts have recognized that natural monopolies are not inherently anticompetitive. *See Union Leader Corp. v. Newspapers of New England*, 284 F.2d 582, 584 (1<sup>st</sup> Cir. 1960) (“In other words, a natural monopoly market does not of itself impose restrictions on one who actively, but fairly, competes for it, any more than it does on one who passively acquires it. In either event, there must be some affirmative showing of conduct from which a wrongful intent can be inferred.”) (footnote omitted) (citing *United States v. Aluminum Co. of America (Alcoa)*, 148 F.2d 416, 430 (2d Cir. 1945) (“A market may, for example, be so limited that it is impossible to produce at all and meet the cost of production except by a plant large enough to supply the whole demand.”)); *Omega Satellite Products v. City of Indianapolis*, 694 F.2d 119, 126-27 (7<sup>th</sup> Cir. 1982) (Posner, J.).

<sup>47</sup> *See, e.g., United States v. Trenton Potteries Co.*, 273 U.S. 392, 397-98 (1927) (rejecting claim that the Sherman Act outlaws only the fixing of an “unreasonable” price due to difficulty of making that finding); *United States v. Addyston Pipe & Steel Co.*, 85 F. 271, 283 (6th Cir. 1898) (Taft, J.) (to examine reasonableness of price is to “set sail on a sea of doubt”), *aff’d*, 175 U.S. 211 (1899); *Town of Concord v. Boston Edison Co.*, 915 F.2d 17, 25 (1<sup>st</sup> Cir. 1990) (Breyer, J.); Evans & Padilla, *Excessive Prices: Using Economics to Define Administrable Legal Rules*, 1 J. OF COMPETITION LAW & ECON. 97, 100 (2005) (“There is no generally accepted definition of what an ‘unfair’ price is.”); Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 Harv. L. Rev. 655, 670 (1962).

settlement negotiations in the civil arena. Often, the conditions require the spin-off of one or more components of one of the merged firms. DOJ could attempt to ameliorate the monopoly-pricing problem that would result from the XM-Sirius merger by imposing price caps for a set number of years as a condition of receiving its approval. For example, the new XM-Sirius could be limited to a fixed percentage increase in price – say, 5% – for the next three years, to be followed by a different price cap – say, 7.5% – for the following three years. In this way, DOJ could try to achieve what would amount to a half-way house solution between disallowing the merger altogether and permitting the newly-created XM-Sirius to engage in monopoly pricing.

Another possibility is that the FCC could decide to impose such a cap under its “public interest” authority. The FCC could decide that the merger benefits the public, that the only potential harm is the risk of monopoly pricing, and that an agreed-upon limited term price cap is adequate to prevent that harm. That result could spark an interesting debate between DOJ and the FCC if the DOJ concludes that the merger poses a risk to consumers.

#### **IV. Conclusion**

XM and Sirius may have a difficult time obtaining approval for their proposed merger. If the government defines the relevant product market broadly to include various alternative forms of audio entertainment, the government is likely to approve the merger, because satellite radio is but a small percentage of the overall audio entertainment market. But if the government restricts the product market to satellite radio or if the government adopts an intermediate position regarding the relevant product and



geographic markets, the government may be willing to approve the merger but could require XM and Sirius to accept a price cap to avoid monopoly pricing.

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