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**Before the  
UNITED STATES COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

In the Matter of:

Determination of Rates and Terms for  
Preexisting Subscription Services and  
Satellite Digital Audio Radio Services

Docket No. 2011-1  
CRB PSS/Satellite II

**TESTIMONY OF**

**JANUSZ ORDOVER**

**Professor of Economics and former Director of the  
Masters in Economics Program at New York University**

**Public Version**

**Witness for SoundExchange, Inc.**

## I. Introduction and Qualifications

1. My name is Janusz A. Ordover. I am Professor of Economics and former Director of the Masters in Economics Program at New York University, where I have taught since 1973. I am a Special Consultant at Compass Lexecon, which is a division of FTI, Inc. During 1991-1992, I served as Deputy Assistant Attorney General for Economics at the Antitrust Division of the United States Department of Justice. As the chief economist for the Antitrust Division, I was responsible for formulating and implementing the economic aspects of antitrust policy and enforcement of the United States, including co-drafting the 1992 U.S. Department of Justice and the Federal Trade Commission Horizontal Merger Guidelines. I also had ultimate responsibility for all of the economic analyses conducted by the Department of Justice in connection with its antitrust investigations and litigation.

2. My areas of specialization include industrial organization, antitrust, and regulation economics. I have served as an advisor on antitrust and regulatory issues to many organizations, including the American Bar Association, the World Bank, the Organization for Economic Cooperation and Development, the Inter-American Development Bank, and the governments of Poland, Hungary, Russia, the Czech Republic, Australia and other countries. I have provided economic testimony in policy hearings conducted by the Department of Justice, the Federal Trade Commission and the United States Senate. I have also consulted and testified in a wide range of antitrust and intellectual property litigation matters. In February 2011, I was the recipient of Global Competition Review's Economist of the Year award. Currently I also serve as a Member of the ABA Antitrust Section's Economics Task Force.

3. My work as an economic expert has involved a number of engagements dealing with issues related to the pricing and distribution of content. This experience spans several industries, including music, motion pictures, and software. With respect to the music industry in particular, I previously have provided testimony on behalf of SoundExchange in matters before the Copyright

Royalty Board regarding determinations of reasonable performance royalty rates associated with the digital transmission of music *via* satellite radio and internet radio (webcasting); I was retained by Universal Music Group and Warner Music Group as an economic expert in an action brought by the Federal Trade Commission (FTC) relating to a joint venture between Warner and Polygram (subsequently acquired by Universal) to produce and distribute an album featuring the “Three Tenors;” I testified on behalf of Universal Music in conjunction with the company’s petition to adjust mechanical royalty rates in the European Union. I also served as an economic consultant to Sony and BMG with respect to the FTC and European Commission investigations of a proposed joint venture. Finally, throughout my nearly 40 years in academia, one focus of my research has been on the incentives that drive the creation and dissemination of intellectual property, and the potential tension between the rights to exclude afforded by the intellectual property laws and the consumer benefits engendered by the widespread diffusion of intellectual property.<sup>1</sup>

## II. Overview of Testimony

### A. Assignment

4. In mid-2011, I was engaged by counsel for SoundExchange to assess the economic issues underlying application of the policy factors enumerated in 17 U.S.C. § 801(b)(1), which govern the determination of rates applicable to Sirius XM’s access to sound recordings. The license at issue in this proceeding provides Sirius XM with non-exclusive rights to broadcast to its subscribers digital performances of copyrighted sound recordings. This license is compulsory, by which I mean that sound recording copyright owners cannot withhold from Sirius XM access to sound recordings.

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<sup>1</sup> My curriculum vitae, which includes a complete list of my publications, is attached as Appendix 1.

5. To develop the conclusions that are discussed in the main body of my report, I relied on my experience in assessing pricing issues generally, as well as pricing of access to content across numerous industries (such as music, motion pictures, software, and cable television), the relevant economic literature, and my knowledge of the music industry. In addition, I reviewed and analyzed data pertaining to the royalty payments made by interactive audio mobile/portable subscription streaming services (“interactive subscription services”) to record labels, as well as contracts between non-statutory services and the record labels. Finally, I conducted interviews with executives at the four major record companies who are centrally involved with the licensing of sound recordings to digital music distribution services.

## **B. Summary of Conclusions**

6. The core economic principle underlying my work in this matter is that the section 801(b)(1) statutory criteria are most consistent with the development of a royalty rate that approximates the terms that would be reached by the parties in an unfettered marketplace setting, *i.e.*, one free of the applicable compulsory licensing regime. Such a rate would reflect the value of sound recordings to Sirius XM subscribers, given the pricing and availability of other channels of distribution through which consumers are able to listen to music. It is reasonable to expect that a material portion of that value would flow to sound recording copyright holders inasmuch as music represents a critical element of satellite radio that attracts subscribers to the service.

7. I am aware of no direct evidence on what rates might be negotiated between Sirius XM and copyright holders in an arms’ length setting for access to a record company’s entire catalog of music for use on Sirius XM’s satellite radio service. This is so because, on the one hand, Sirius XM is assured access to the music content at a statutory rate, if the negotiations were to fail, and on the other hand, the record companies do not bargain individually with Sirius XM. Consequently, it is necessary to develop an appropriate benchmark that could serve as a basis for setting the required backstop rate for Sirius XM.

8. My analytical framework assesses which non-statutory channels of music distribution reasonably can serve as benchmarks for the rates agreed to between buyers and sellers in the absence of a regulatory backstop. These rates must be adjusted to account for relevant differences between satellite radio and the benchmark non-statutory services, in line with the governing statutory criteria, in order to estimate the outcome of voluntary negotiations between Sirius XM and sound recording copyright holders. My conclusion is that interactive subscription services represent the most suitable benchmark for purposes of estimating a rate schedule that should apply to Sirius XM's licensing of digital sound recording performance rights.

9. Using interactive subscription services as the benchmark marketplace, I undertake several approaches to calculate appropriate rates for Sirius XM. The rates yielded by these approaches range from 22.32% to 32.5% of Sirius XM's gross subscription revenues.

10. I develop the bases for these conclusions in the rest of this testimony.

### **III. The Economics Underlying the Section 801(b)(1) Criteria**

#### **A. Introduction**

11. The following four policy objectives govern rate-setting for the blanket license at issue in this proceeding:

- a. To maximize the availability of creative works to the public;
- b. To afford the copyright owner a fair return for his creative work and the copyright user a fair income under existing economic conditions;
- c. To reflect the relative roles of the copyright owner and the copyright user in the product made available to the public with respect to relative creative contribution, technological contribution, capital investment, cost, risk, and contribution to the opening of new markets for creative expression and media for their communication; and
- d. To minimize any disruptive impact on the structure of the industries involved and on generally prevailing industry practices.

In my view, the relevant issue to examine with respect to these four policy objectives is whether their application compels adjustments to benchmark rates arrived at by the record companies and digital music distribution services through bargaining in unfettered marketplace settings. That is, the necessary first step is to identify comparable benchmark rates, and then to determine whether these rates require modification in light of application of the governing policy objectives in this proceeding dealing with satellite radio. As I discuss below, rates negotiated outside the shadow of regulation should satisfy the first three policy objectives.

12. With regard to the fourth objective, I understand that the relevant factors that may compel adjustment to the benchmark rates are analyzed extensively in the expert reports of Gregory Sidak and Thomas Lys, which are to be submitted simultaneously with my report. I note, however, that from the standpoint of economically sound competition policy, and not as a matter of legal interpretation of the statutory language, the fourth policy objective should be limited to a temporary facilitation of the ability of nascent and emerging services to gain consumer acceptance and potentially achieve an efficient scale of operation. By the same token, sound competition policy would not regard the fourth objective as advocating protection to an established service from the rigors of competition, either from existing services or from future entrants. Once a company achieves a material presence in the marketplace, as Sirius XM indubitably has,<sup>2</sup> use of the fourth policy factor to reduce market-based rates should be considered only with extreme caution, and should never be used to shield the service at issue from the

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<sup>2</sup> A Sirius XM presentation from 2010 characterizes the company as “the world’s largest pure-play audio entertainment company,” and “one of the few large media companies currently growing revenue and EBITDA.” (Sirius XM Board of Directors Meeting, February 2, 2010, at p. 5.) In terms of subscriber counts, Sirius XM outpaces DirecTV, Dish Network, Time Warner Cable, Charter, and Cablevision. (*Id.* at p. 8.) Similarly, a Morgan Stanley report from February 2011 indicates that Sirius XM “can sustain subscriber momentum.” (“Sirius XM Radio Inc., Sell-off on 2011 Guidance is Overdone, Reiterate OW,” Morgan Stanley, February 15, 2011, at p. 5.)

full rigors of vigorous marketplace competition. Doing so is likely to harm consumers and also impede (or deter) entry and expansion of rival services.

**B. Objective One: To Maximize the Availability of Creative Works to the Public**

13. There are no sound economic reasons to adjust market-based rates because of this statutory objective. A market-based rate fosters this objective because it provides copyright holders with incentives to create content, as reflected in the services' (and, hence, consumers') willingness and ability to pay for creative works;<sup>3</sup> and it also gives service providers sufficient incentives to distribute content to the listening audience.<sup>4</sup> Rates determined through voluntary negotiations in a competitive marketplace can be expected to meet these requirements: they will not be so low as to suppress the creative endeavors of copyright holders, nor will they be so high as to materially weaken the incentives of service providers to expand output and improve the quality of their services, to the ultimate detriment of consumers. Or stated differently, the first policy objective directs that licensing rates should be high enough to foster the creation of new content, but not so high as to jeopardize the forward-looking viability of a service that has gained acceptance among consumers in the marketplace.

14. At a minimum, based on Sirius XM's own advertising of its service, it is reasonable to assume that music content accounts for a significant portion of the service's overall value as perceived by the subscribers to the service.<sup>5</sup> Consistent with this assumption, sound recording copyright holders should receive a

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<sup>3</sup> To the extent that there is a "market failure" whereby some types of music are undersupplied, this market failure should not be remedied by the services "overpaying" for music.

<sup>4</sup> To the extent that there is a "market failure" whereby some services cannot be provided profitably, this market failure should not be remedied by implicit "subsidies" from content providers.

<sup>5</sup> See <http://www.SiriusXM.com/whatisSiriusXM> (highlighting features of Sirius XM, and touting 71 commercial-free music channels).



substantial portion of the overall value of the satellite radio service, as reflected in its subscription prices.

15. Naturally, there are limits to the share of the service's overall value that the record companies could extract through arms' length bargaining. After all, Sirius XM's elasticity of demand for sound recordings certainly is not zero. From here, two conclusions follow: first, the higher the licensing rates the stronger is the incentive for Sirius XM to increasingly shift its service away from music and towards non-music content; second, the higher are the licensing rates the more likely it is that Sirius XM would raise subscription prices, resulting in lower subscriber demand for the service and possibly lower payments to copyright holders. With that said, Sirius XM's announced intention to increase prices in the first quarter of 2012 is consistent with the view that the demand for the service at current rates is sufficiently inelastic so that rising rates will neither discourage music programming nor divert sufficient volume of subscribers from the service to other venues, thereby reducing net revenues.<sup>6</sup>

16. The constraints mentioned above limit the rates that record companies would be able or willing to demand in individual negotiations with Sirius XM, even in the absence of the regulatory backstop. In the end, individually negotiated licensing rates should reflect the value of each label's sound recordings repertoire, as well as Sirius XM's expectations regarding each label's ability to

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<sup>6</sup> "Sirius XM Radio's CEO Discusses Q3 2011 Results – Earnings Call Transcript," Seeking Alpha, November 1, 2011 (Monthly price for Sirius XM Select packages to increase starting January 1, 2012 from \$12.95 to \$14.49. According to Mel Karmazin, the company's CEO, the increase will "help us to accelerate revenue growth next year.") The reason that Sirius XM is able to profitably raise its subscription rates stems from the expiration of the cap on its rates that was agreed to between the company and the FCC to secure the clearance of the merger between Sirius and XM, and that was subsequently extended by Sirius XM as a settlement of litigation. *See* Applications for Consent to the Transfer of Control of Licenses, XM Satellite Radio Holdings Inc. to Sirius Satellite Radio Inc., Memorandum Opinion and Order and Report and Order, 23 F.C.C.R. 12,348, 12,394-95 ¶¶ 107-08 (2008); *Blessing v. Sirius XM Radio Inc.*, 2011 WL 3739024, No. 09 CV 10035(HB), 2011-2 Trade Cas. ¶ 77,579 (S.D.N.Y. Aug. 24, 2011).

generate value through future releases, and the pertinent constraints, including competition among record companies. Because these same dynamics shape the negotiations between record companies and service providers in other distribution channels, the licensing rates voluntarily established in those channels provide probative benchmarks for the licensing rates at issue in this proceeding.

17. It is also important to note that when negotiating rates with service providers in a particular channel, record companies will take into account the extent to which consumer purchases in that channel will divert (*i.e.*, cannibalize) purchases – hence record company licensing revenues – from other channels.<sup>7</sup> In their negotiations with service providers, record companies similarly would be expected to factor-in the promotional effects, which reflect the extent to which the distribution of music through a given channel tends to stimulate the overall demand for music by consumers.

18. From this perspective, the pertinent issue to examine in this proceeding is not the relative strength of these two effects with respect to satellite radio, but rather whether the balance of the two effects differs materially from the selected benchmark service(s). Based on the information available to date, I find no sound basis on which to conclude that the balance of substitution and promotion effects for satellite radio differs in any meaningful degree from the interactive subscription services that I employ as the market-based benchmark to derive appropriate rates for Sirius XM.<sup>8</sup> Insofar as Sirius XM will present information or

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<sup>7</sup> As should be clear, lower licensing rates in a particular channel quite likely will lead to lower retail prices and greater consumer demand for the service. Insofar as that demand represents a substitution away from other channels in which applicable licensing rates are higher, record companies would have legitimate concerns about the adverse impact on profitability arising from lower rates in a given channel.

<sup>8</sup> This view is consistent with my discussions with record label executives who expressed substantially uniform opinions that the balance of substitution and promotional effects as between satellite radio and interactive subscription services is not materially different. Both types of service reasonably divert some consumer demand away from other channels, and similarly both

(footnote continued ...)

analysis purporting to demonstrate that the substitution and promotional effects of its service *vis-à-vis* interactive subscription offerings warrant a downward adjustment to the interactive subscription benchmark rates discussed below, I reserve the right to consider this evidence and to respond accordingly.

**C. Objective Two: To Afford the Copyright Owner a Fair Return for His Creative Work and the Copyright User a Fair Income under Existing Economic Conditions**

19. As a threshold matter, the notion of “fairness” in the abstract is not an objective that economic policy seeks to promote, if only because “fairness” is not a concept based in fundamental principles of economics. Of course, given an externally provided notion of “fairness,” economic analysis can offer guidance on how that goal can be achieved at the lowest resource cost to society. Setting this issue aside, one way to characterize a “fair” outcome from an economic perspective is to associate it with an outcome that results from the voluntary interactions of participants in effectively competitive markets, *i.e.*, markets not distorted by undue exercise of monopoly power on the part of sellers or monopsony power on the part of buyers. From such a vantage point, a “fair” outcome would entail rates that are consistent with rates paid by services in other distribution channels that arise through market-based interactions.

20. Importantly, providing a copyright user with a “fair income” should not be interpreted as setting a guaranteed minimum rate of return for the copyright user. Given that the benchmark rates are established through voluntary transactions, and that the benchmark services are at this time active in the marketplace while paying those rates, there is no compelling economic reason to question the utility of those rates in the instant proceeding, unless there is a clear showing that the benchmark rates were elevated by the exercise of monopoly power. I have seen

(... footnote continued)

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types of service expose some users to new music, and hence potentially stimulate demand in other channels.

no evidence to suggest that this is the case with respect to interactive subscription services, which I am putting forth as the appropriate benchmark, or with respect to other non-statutory distribution channels. Consequently, it is my view that observed rates paid to the record labels by interactive subscription services require no adjustment pursuant to the second policy objective. In fact, any downward adjustment would amount to a “subsidy” for Sirius XM, which would provide the company with an unwarranted competitive advantage relative to rival distributors of music content, and also dilute the incentives for the creation of new works and for the efficient transmission of music through new and emerging channels.

**D. Objective Three: To Reflect the Relative Roles of the Copyright Owner and the Copyright User with Respect to Their Relative Creative and Technological Contributions, Cost, Risk, and Contribution to the Opening of New Markets for Creative Expression**

21. As is the case with the first two objectives already discussed, achievement of the policy goals set out in the third objective are best accomplished with licensing rates consistent with those negotiated voluntarily in market-based settings. Effectively competitive markets do not ensure that participating firms are invariably able to earn normal rates of returns on their investments. This is especially true of investments that are sunk in the sense that they would not be recovered if the firm were to exit the business.<sup>9</sup> At the same time, effectively competitive markets reward firms that have undertaken investments and other expenditures on products and services that consumers find attractive, given the availability of other options. Generally, firms will continue investing if the expected rate of return on these investments is higher than the firm’s cost of capital, taking into account the risks associated with the project. This is true for a firm like Sirius XM, which has made substantial investments in its distribution

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<sup>9</sup> See, e.g., Katz, M.L. and H.S. Rosen, *Microeconomics*, Richard D. Irwin, Inc. (1991), at p. 219; Varian, H.R., *Intermediate Microeconomics*, W.W. Norton & Company (1999), at p. 353.

infrastructure; firms like the record companies, which invest in their A&R (*i.e.*, artists and repertoire), marketing and distribution chain; and recording artists, who invest their time and other resources to produce the content that is disseminated through various channels.

22. From this perspective, the relevant costs and risks translate into prices that the seller charges for its product or service. In a competitive market, no seller is assured that it will earn the risk-corrected, expected cost of capital. A service like Sirius XM may not be able to recover the costs of its satellite footprint (if its service does not attract enough demand); the record company may not recover the costs it expended on the artist and the recording (and it rarely does!); and the recording artist may never recover the opportunity cost of time devoted to producing a song (and many do not!). None of this means that rates should be set in such a manner as to ensure a risk-adjusted return on investment. If a market participant sinks resources into the provision of a product or service, no matter how “large” these might be, the marketplace will only reward those investments if the ultimate consumers find these products or services sufficiently attractive relative to the alternatives. No participant in the market should be required to ensure the success of any other participant, be it a nationwide satellite radio service or a fledgling recording artist producing songs in a basement. In fact, basic economics teaches that investments that are not generating enough in revenues should be “marked to market” and valued at their true economic value and not at their initial value.

23. There are several relevant considerations to address with respect to the third policy objective as it pertains to the fact that Sirius XM has substantial fixed (and possibly sunk) costs (such as those associated with the costs of satellites in particular) and was the first satellite radio service.<sup>10</sup>

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<sup>10</sup> To the extent that Sirius XM’s satellites can be repurposed, the magnitude of its sunk costs is less than one would presume.

- a. First, while Sirius XM's contributions (technological and to opening new markets for creative expression) and its costs are significant, it is important to recognize the contributions and costs of the record labels as no less significant, including the contributions and opportunity costs of performers who split statutory license fees with record companies. In particular, it would be wrong as a matter of sound economics and competition policy to assess the contributions and costs of the record labels solely on an incremental basis, *i.e.*, to limit the analysis to the incremental contributions and costs associated with the distribution of music *via* Sirius XM. Indeed, the record companies undertake substantial and irreversible investments in development and promotion of artists that are designed to provide artists with strong incentives to create new sound recordings. Consideration of the third objective should not underestimate the massive and quite risky investments record labels make to identify new talent and to encourage the continuing productivity of existing artists.
  
- b. Second, the sizable capital invested by Sirius XM to deploy new satellites and to maintain its network may suggest that the balancing of factors spelled out in the third objective should shift rates in favor of Sirius XM, *i.e.*, in favor of a downward adjustment to rates obtained from market-based benchmarks. This would be wrong, however. First, consideration, if any, of a possible downward adjustment should account for the fact that the five-year time horizon over which licensing rates in this matter will be determined is substantially shorter than the useful physical life of Sirius XM's investments in its satellite network. Second, what is relevant for rates is the economic life and the rate at which the investment would depreciate in the competitive market. If the economic life is affected by competition from other services, there is no reason why rates should be set to assure a level of profitability that a competitive market would make unattainable. Third, it is my understanding that Sirius XM has no plans to launch additional satellites in the coming rate term.<sup>11</sup> To the extent the Court finds the investment in satellites relevant, I believe that the issue

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<sup>11</sup> See, e.g., "Sirius XM Radio's CEO Discusses Q3 2011 Results – Earnings Call Transcript," Seeking Alpha, November 1, 2011 (Noting the company "will have many years without the need for substantial satellite capital expenditures."); "Sirius XM Board of Directors Meeting," February 2, 2010, at p. 30 (Graphic showing "sharply reduced" satellite expenditures after 2011.).

appropriately is addressed under the rubric of the fourth policy objective.

- c. Finally, Sirius XM is a distributor of music and non-music content.<sup>12</sup> Moreover, while Sirius XM creates some original programming that it provides alongside the music (the so-called “wrapper”), it is beyond dispute that the music itself, and not the programming, represents the content that is absolutely essential for the service to be attractive to a sufficient number of consumers to make it even potentially economically viable. This is not to say that the programming expertise of Sirius XM is without value – it surely does have value, especially for the “lean-back” listeners.<sup>13</sup> But it is also the case that the programming inputs paired with the music content would have no value if delivered in isolation, *i.e.*, not accompanied by sound recordings. The inverse, however, does not hold: separate and apart from its transmission *via* satellite radio, music content has an established value in the marketplace in a variety of distribution channels.

## E. Conclusion

24. In sum, the determination of licensing rates in this proceeding should begin with the identification of rates voluntarily negotiated between copyright holders (individual record companies) and service providers in unfettered market settings, *i.e.*, in settings free of the compulsory licensing regime underlying the

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<sup>12</sup> To be complete, the company does offer packages limited to news, sports, and talk programming (*i.e.*, no music beyond incidental performances) and packages whose channel line-up is heavily weighted towards music. My understanding is that the vast majority of Sirius XM customers subscribe to a “blended” package, *i.e.*, one whose channel line-up features a significant amount of both music and non-music programming. In a March 2011 conference call, Sirius XM’s CFO, David Frear, noted that there has been limited subscription to “Mostly Music” or “Mostly News, Sports & Talk.” According to Mr. Frear, customers are “used to a mix of music, talk, news and sports.” On the same call, Mr. Frear indicated that a limited number of Sirius XM’s customers (less than 30,000) subscribe to the company’s a la carte packages. From Mr. Frear’s comments, one can infer that Sirius XM’s customers, for the most part, subscribe to the one of the company’s “blended” offerings which include the Select and Premier packages.

<sup>13</sup> In the parlance of the music industry, a “lean-back” is a “passive” customer who does not in any way interact with the channel. A “lean-forward” is an “active” customer who interacts with the supplier of music. There is a whole range of interactivity afforded by the plethora of distribution channels available in the U.S. today. And more are likely on the way.

instant proceeding. In my view, such rates satisfy the first three of the operative statutory objectives insofar as those objectives advocate consideration of factors that shape negotiations undertaken, and rates agreed to, in the absence of potential regulatory intervention.

25. With the foregoing discussion of the first three policy objectives as a backdrop, I now turn to my assessment of marketplace rates that support the reasonableness of the range of rates put forward by SoundExchange.

#### **IV. Market-based Benchmark Rates**

##### **A. Introduction**

26. The discussion in this section flows from the basic proposition that rates arising from voluntary transactions in a competitive marketplace free of regulatory overhang best advance the statutory policy objectives and promote the economic welfare of consumers, record companies, and distributors of music content. As such, rates negotiated in the absence of possible regulatory intervention are of significant probative value for purposes of setting appropriate licensing rates for the digital distribution of sound recordings by Sirius XM. More specifically, reasonable licensing rates to apply to Sirius XM's transmission of music can be derived from the licensing rates found in modes of digital distribution other than satellite radio, after taking into account any economically relevant differences between satellite radio and other distribution channels that might impact the value of the music in the benchmark channel to consumers, as reflected in consumers' willingness to pay for the service. The compelling benefit of a benchmark approach is that it is based on actual market outcomes that reflect the very same factors deemed relevant by the first three statutory criteria.

27. In addition to identification of comparable benchmark services, determination of reasonable benchmark royalty rates requires the selection of an appropriate rate structure, *i.e.*, the particular mechanism with which licensing fees are calculated. Historically, the Court has exhibited a preference for a per-performance (*i.e.*, per-listen/per-song transmitted) mechanism, reasoning that



intensity of usage most directly reflects the value of the licensed sound recording rights to the licensee (the service). I understand that implementation of a per-performance metric for satellite radio service is not feasible, for the simple reason that satellite radio transmission is one-way. That is, there is no listener data transmitted back to the satellite that would permit Sirius XM to collect the data required to administer the payment of royalties based on a per-performance metric.

28. Given that a usage-based metric cannot be readily calculated, the remaining potentially viable options are percentage-of-revenue and per-subscriber mechanisms. Neither metric represents a perfect proxy for usage, although I view a percentage of revenue mechanism as preferable because revenues, as a function of price, are related to usage insofar as subscribers' willingness to pay for a service is influenced by the subscriber's planned intensity of usage.<sup>14</sup> While it is true that a percentage of revenue metric requires one to estimate the portion of the total value of the Sirius XM service that ought to be attributed to music, a per-subscriber metric would require the same determination.

29. I undertake several analyses to develop a range of reasonable licensing rates applicable to Sirius XM's use of sound recordings. First, I examine the licensing fees currently paid by interactive subscription services to the record companies. Such payments reflect license fees voluntarily negotiated by the parties, and as such represent an appropriate starting point for calculating rates in this proceeding, given the relevant policy objectives (*see* Section III). Second, the information enables me to calculate the percentages of total revenues represented by payments. Rates based on percentage of revenues do not require an adjustment to account for the interactivity of the benchmark service, as the value of such interactivity (and other attributes and functionalities of the service) is reflected in

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<sup>14</sup> And actual intensity of usage as well, insofar as a subscriber's expected usage in the future is based to some degree on historical usage.

subscription prices and in the overall attractiveness of the service, as measured by the number of subscribers. Thus, the service's gross revenues (which are a product of price and quantity) best capture its overall value of consumers. That is, while the particular attributes of the benchmark service will influence its retail price, and hence the pool of revenues against which licensing fees are calculated, these attributes do not require separate treatment for purposes of determining a percentage-of-revenue rate to apply to Sirius XM's revenues. This proposition is true not only as a theoretical matter, but is also reflected in the licensing agreements negotiated across digital music distribution services that are analyzed below and included in Table Two. This table shows the general clustering of, and consistently high, percentage-of-revenue rates for access to digital sound recording rights across different distribution channels.

30. However, it is necessary to adjust the benchmark rates to account for the fact that the Sirius XM service, unlike interactive subscription services, transmits both music and non-music content. This means that only a portion of Sirius XM's total subscription revenues can be attributed to the sound recordings. Once this adjustment is made, observed payments to the record labels by interactive subscription services, as percentages of the services' total gross revenues, yield "percentage of revenue rates" for Sirius XM between 30% and 32.5% for the 2013-2017 period.

31. Second, I tested whether the rates obtained through my investigation of rates for interactive subscription services reflect more generally the rates voluntarily negotiated between record companies and service providers across a variety of modes of digital distribution for music content. For this task, I and the staff working under my direction examined numerous licensing agreements between the record companies and services that are currently in place. As discussed below, the percentage of revenue rates stipulated in these licensing agreements cluster in a range that corroborates the reasonableness of the benchmark rates derived from interactive subscription services.

32. My third approach starts with the effective per-subscriber rates paid by interactive subscription services (*i.e.*, actual licensing fees paid divided by subscriber counts) and then adjusts those rates to account for differences in attributes and functionality between interactive subscription services and satellite radio. I adjust for such differences by estimating the market price of a hypothetical music-only satellite radio offering and then compare that price to the subscription prices for interactive subscription services. Because price reflects the lower-bound of valuations that active subscribers attach to a service (given the content plus the service's characteristics and attributes), a comparison of prices yields a plausible metric with which to adjust per-subscriber rates in the interactive subscription services realm to an equivalent market-based per-subscriber rate applicable to Sirius XM, which can then be converted to an equivalent percentage-of-revenue rate.

**B. Interactive Subscription Services as a Benchmark**

33. Identification of a candidate benchmark marketplace should place heavy emphasis on the extent to which the service under consideration is comparable to satellite radio along the relevant dimensions, as well as on the ability to account for any material differences between them. In my view, interactive subscription services are comparable to satellite radio in key respects and thus are well-suited to serve as a benchmark service for purposes of determining reasonable rates in this proceeding.

34. On the seller side, both interactive subscription services and satellite radio require access to the same sound recording rights controlled by the same copyright holders. On the buyer side, Sirius XM's business model obviously differs from that deployed by providers of interactive subscription services, *e.g.*, in terms of how music is transmitted to subscribers. However, what matters is that absent persuasive evidence to the contrary, there is no reason to expect that a hypothetical negotiation between Sirius XM and a major record label would culminate in a percentage-of-revenue rate that differs materially from the observed rates agreed to by the record companies and Microsoft, Rhapsody, and

other interactive streaming providers. For both Sirius XM and the interactive subscription services, sound recording rights are an essential input, which means that their demand for sound recording rights is derived from downstream consumer demand for the services. In both downstream markets, music content is distributed through a digital channel and is offered at monthly subscription prices that afford subscribers unlimited usage. In addition, both services provide subscribers with the ability to listen to music while “on the go”: satellite radio primarily delivers music content to consumers while traveling in their vehicles and mobile interactive subscription services provide subscribers with the ability to listen to music on mobile devices such as laptops, iPhones, and iPads.<sup>15</sup>

35. I, and the staff working under my direction, analyzed data on licensing fees paid by a number of interactive subscription services to each of the four major record companies – EMI, Sony, Universal Music Group, and Warner Music Group. In general, the licensing fee contracts of interactive subscription services are governed by a “greater-of” provision that calculates the license fees under separate per-play, per-subscriber, and percentage-of-revenue mechanisms. Such calculations for each label are done on a pro-rata basis according to the proportion of total songs played accounted for by each record company’s sound recordings catalog, *e.g.*, if a label accounts for 20% of the music distributed on a service, the label’s licensing fees would be computed using 20% of the service’s revenues. Licensing fees ultimately owed by the service are equal to the largest fee amount calculated as among the operative metrics. Notably, the percentage-of-revenue mechanism is, in some cases, applied to a net revenue figure that equals gross revenues less certain carve-outs defined in the licensing agreement. Below, when I calculate actual licensing fees paid as a percentage of revenue, I use gross

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<sup>15</sup> There are also “non-portable” interactive subscription services available to consumers. These command lower retail prices. These services allow for streaming only through a personal computer and are not included in my analysis.

revenues so as to capture the actual revenues received and thus to maintain consistency with my use of actual licensing fees paid.

36. In the table below, I report results for licensing fees paid to each of the four major record labels by a number of interactive subscription services, including well-established services like Microsoft Zune, Napster,<sup>16</sup> and Rhapsody, and newer market entrants like Rdio and MOG.<sup>17</sup> As shown, annual payments as a percentage of gross revenues generally range from 50% to 70%, and tend to cluster in a narrower range of 60% to 65%.<sup>18</sup>

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<sup>16</sup> Rhapsody announced in October 2011 its agreement to acquire Napster from Best Buy. (<http://www.webpronews.com/napster-acquired-by-rhapsody-2011-10>.)

<sup>17</sup> My decision to include or exclude any given interactive subscription service was a function of the availability of royalty payment data and the relevance of the service. In particular, I excluded from Table One the following services, with a brief explanation for each included in parentheses: Altnet (Ringtone downloads bundled with streaming service), Classical Archives (Service limited to classical music sound recordings), iMesh (Unable to determine from Internet research the terms of iMesh subscription offering), MediaNet (Does not offer its own digital music service but rather provides a back-end platform for digital music distribution services (<http://www.mndigital.com/services/>); Thumbplay (Recently acquired by Clear Channel and no longer active (<http://www.thumbplay.com>); operated as a hybrid streaming/ringtone service). For Slacker Premium, because the service was introduced in May 2011 (<http://www.slacker.com/company/pressreleases/05172011-Slacker-Premium.jsp>), my calculations use royalty payment data from May 2011 and forward.

<sup>18</sup> I start my analysis with data from July 2010 for two reasons. First, because the digital music distribution marketplace is highly dynamic, data used to develop estimates of reasonable rates should be relatively current and thus reflective of extant marketplace conditions. Second, and more specifically, I selected July 2010 as my starting point because a number of interactive subscription services implemented lower monthly prices in the first half of 2010 (or thereafter). See Amended and Corrected Testimony of Michael D. Pelcovits, Docket No. 2009-1, CRB Webcasting III, February 16, 2010, at p. 25, as compared to Table Four *infra*.

**Table One: Royalty Payments by Interactive Subscription Services  
(as a percentage of gross revenues)  
(RESTRICTED)**

Label	Service	2H2010	2011	Total
EMI	Napster Streaming + Mobile	█	█	█
	Rhapsody Limited Portable + Portable	█	█	█
	Zune Portable	█	█	█
	MOG	█	█	█
	Spotify Premium + Mobile		█	█
	Slacker Premium Service		█	█
	Rdio Portable	█	█	█
Sony	Napster Streaming + Mobile	█	█	█
	Rhapsody Limited Portable + Portable	█	█	█
	Zune Portable	█	█	█
	MOG	█	█	█
	Rdio Portable	█	█	█
UMG	Napster Streaming + Mobile	█	█	█
	Rhapsody Limited Portable + Portable	█	█	█
	Zune Portable	█	█	█
	MOG		█	█
	Spotify Portable		█	█
	Rdio Portable		█	█
WMG	Napster Streaming + Mobile	█	█	█
	Rhapsody Portable	█	█	█
	Zune Portable	█	█	█
	MOG	█	█	█
	Slacker Premium Service		█	█
	Rdio Portable	█	█	█

Source: Royalty payment data from EMI, Sony, Universal, and Warner.

Note: All reported percentages are based on gross subscription revenues.

37. As noted earlier, to translate percentage of revenue payments by interactive subscription services into an equivalent rate for Sirius XM, it is necessary to account for the fact that unlike the all-music benchmark services, Sirius XM's revenues are derived from the delivery of both music and non-music content. Estimation of the portion of total service value reasonably attributable to music is greatly aided by the fact that Sirius XM offers service packages that

essentially consist of non-music content (Sirius News, Sports & Talk<sup>19</sup> and XM News, Sports & Talk<sup>20</sup>) and service packages consisting mostly of music programming (Sirius Mostly Music<sup>21</sup> and XM Mostly Music<sup>22</sup>). Each of the Mostly Music packages provides access to a channel line-up heavily weighted towards music programming: approximately 80% of the channels are music channels.

38. At this time, the non-music and mostly-music packages are offered at identical prices – \$9.99 per-month.<sup>23</sup> The fact that the same price is charged for both types of service packages suggests that the marginal subscriber(s) to each of these packages values music and non-music content, respectively, at roughly equivalent levels.<sup>24</sup> This finding has important implications for the various “blended” packages (*i.e.*, packages whose channel line-ups prominently feature

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<sup>19</sup> <http://www.Sirius XM.com/subscriptions/packages/sirius/newssportstalk>.

<sup>20</sup> <http://www.Sirius XM.com/subscriptions/packages/xm/newssportstalk>.

<sup>21</sup> <http://www.Sirius XM.com/subscriptions/packages/sirius/mostlymusic>.

<sup>22</sup> <http://www.Sirius XM.com/subscriptions/packages/xm/mostlymusic>.

<sup>23</sup> It is my understanding that at least some Mostly Music subscribers are required to pay a monthly Music Royalty Fee (MRF) of \$1.40. At this point, I do not have data on the pervasiveness with which the MRF is imposed. Pending discovery on the extent to which Mostly Music subscribers pay a \$1.40 MRF on top of the \$9.99 monthly subscription price, it may be appropriate to add the MRF to the subscription price for purposes of estimating the relative value of music content.

<sup>24</sup> For purposes of estimating the portion to the total value of satellite radio attributable to music content, it is most appropriate to focus on the marginal consumer, *i.e.*, the consumer for whom the value of music is just equal to the price of the service. Infra-marginal subscribers value music more highly than marginal subscribers, of course. Hence the average valuation of music by all the subscribers to the mostly-music service is higher (and can be substantially higher) than the marginal valuation. Furthermore, if one reasonably assumes a uniform distribution of tastes across consumers, for both music and non-music content, the identical prices of Sirius XM’s non-music and mostly music packages suggest that consumers, on average, value music and non-music content equivalently. That is, the average valuation of music among consumers who value non-music at \$X/month is the same as the valuation of non-music among consumers who value music at \$X/month.

both music and non-music content) to which, it is my understanding, all but a small fraction of Sirius XM's customers subscribe.<sup>25</sup> In particular, for packages that combine a substantial amount of both music and non-music content, it is reasonable to estimate that the music content, for the average marginal subscriber, accounts for one-half of the service's total value. Consequently, the percentage-of-revenue rates obtained from the benchmark all-music interactive subscription services, when applied to Sirius XM, need to account for the fact that Sirius XM's service revenues are generated by and large from subscription packages that combine music and non-music programming.<sup>26</sup>

39. To illustrate the mechanics of the calculation, start with the monthly price of \$12.95 for Sirius XM's Select packages, which represent the opening price point for the company's menu of "blended" offerings. Applying the range of percentage-of-revenue rates obtained from the interactive subscription services benchmark yields a per-subscriber royalty payment on the Select packages of between \$7.77 ( $0.60 * \$12.95$ ) and \$8.42 ( $0.65 * \$12.95$ ). Based on the estimated 50% proportional value that music content contributes to the Sirius XM service, an equivalent range of royalty payments for Sirius XM is obtained by taking 50% of the benchmark figures. Doing so yields a range of \$3.885 ( $\$7.77 * 0.50$ ) to \$4.21 ( $\$8.42 * 0.50$ ). Finally, dividing these figures by the \$12.95 monthly price for the Select packages generates a range of percentage-of-revenue rates of 30% ( $\$3.885/\$12.95$ ) to 32.5% ( $\$4.21/\$12.95$ ). To be clear, these rates should be applied to Sirius XM's total subscription revenues rather than the portion of the company's revenues reasonably attributable to music content. This follows

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<sup>25</sup> *Supra* note 12.

<sup>26</sup> As a general proposition, a percentage-of-revenue metric has two critical components – the percentage rate and the revenue base against which that rate is applied to determine licensing fees. Importantly, these two components should be assessed jointly, as they are in this report. In particular, because my derivation of a percentage rate takes account of the fact that only a portion of Sirius XM's total subscription revenues is attributable to music content, that rate should be applied to the company's total subscription revenues.



because the halving of the benchmark rates already accounts for the estimated portion of total value (50%) attributable to Sirius XM's provision of non-music programming.

40. The Mostly Music packages do include non-music channels, and consequently, insofar as these channels are assigned positive value by subscribers to the Mostly Music package, one would need to adjust downward the estimate that music represents one-half the total value of the satellite radio service. Alternatively, if one believes that the marginal consumer would pay \$9.99 per-month for the Mostly Music package even if the non-music channels were not included, then no downward adjustment would be necessary. Moreover, the imposition of the U.S. Music Royalty Fee on at least some customers who receive subscriptions that feature music content could require an upward adjustment. Relatedly, implementation of the recommended range of percentage of royalty rates may need to account for the breakdown of Sirius XM subscribers across its menu of programming packages.<sup>27</sup> With that said, given the earlier noted statements of David Frear, Sirius XM's CFO, that only a small fraction of Sirius XM customers subscribe to the company's "non-blended" offerings, specific accounting for these offerings is unlikely to have a material impact on the range of rates recommended in this report.

### **C. Other Modes of Digital Music Distribution as Corroborative Evidence**

41. To ensure the robustness of the rates determined from the interactive subscription services benchmark, I analyzed marketplace rates negotiated for several additional well-established distribution channels for digital music. In the

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<sup>27</sup> Sirius XM's additional subscription offerings, including Sirius Select and XM Select and the Premier packages, offer a large number of channels not available on either the Mostly Music or News, Sports & Talk packages. Some of these additional channels are music and some are non-music. Some are available only if a subscriber adds the \$2.99 Internet listening feature and some are not available online even with the add-on. But there is nothing to suggest from the channel lineups of the various packages that my estimation of a 50-50 split in value between music and non-music content for the average marginal subscriber is unreasonable.

table below, I present percentage of revenue rates found in the licensing agreements between the major record companies and digital music distributors. The figures in the table reflect rates that currently govern record companies' compensation under a sampling of recent agreements.

**Table Two: Contractual Percentage-of-Revenue Rates**

<b>Product</b>	<b>% of Gross Revenue Rate</b>
Permanent Audio Download	70%
Cellular (Ringtone/Ringback)	45% - 50%
Interactive Subscription (Non-Portable)	50% - 65%

Source: Licensing agreements between four major record companies and service providers. The specific agreements summarized in the table are set forth in Appendix 2.

42. As the table illustrates, across services built around the digital distribution of sound recordings to consumers, copyright holders consistently earn a substantial percentage of distributors' gross revenues. These high percentages reflect the fact that access to music content represents the core and indispensable element of these services.

43. The consistency of rates found in the contract data is hardly surprising, insofar as services across modes of digital music distribution are substitutes for one another, albeit likely to varying degrees. The average daily consumption of music by consumers necessarily is limited, which means that increased listenership in one channel diverts some of the time spent listening to music through other channels. Thus, insofar as digital music distribution channels are substitutes, a reasonable expectation is that sound recording copyright holders would seek to garner roughly comparable percentages of the value of music content to consumers (as reflected in the prices, and thus the revenues, of the various services). While the quantum of value differs across services, such differences reflect the mode of distribution and other pertinent attributes, and are captured in retail prices. The observed consistency of percentage-of-revenue rates across distribution channels is consistent with this view.

## V. Per-Subscriber Rates from Interactive Subscription Services as Benchmarks

### A. Introduction

44. As already discussed, it is my opinion that benchmark “percentage-of-revenue” rates represent the most appropriate basis on which to derive plausible market-based rates for licensing of sound recordings to Sirius XM. This is the case because revenues are a direct function of prices, which in turn reflect the value consumers in the aggregate place on the various attributes and functionalities provided by any given service. For example, if consumers in the aggregate reduce their valuation of the functionalities offered by one service relative to another service, we would expect the price of the now less desirable service to fall, all else remaining the same. Stated another way, for consumers who are just indifferent between subscribing to one service versus another, the relevant prices fully capture the influence of all the relevant factors on the valuation of the two services. Thus, by using percentage-of-revenue rates, one avoids the need to adjust benchmark rates to account for differences in characteristics between the benchmark service – here interactive subscription services – and satellite radio. Simply stated, prices reflect such differences, as perceived by consumers, which means, in turn, that rates based on percentage of revenues also will reflect such differences, given that the “music” – understood as an input – is the same.

45. Nevertheless, one could, as part of the rate determination exercise, attempt to account directly for differences in service attributes as between satellite radio and interactive subscription services. There are econometric techniques that could be used on the available data for that purpose. For example, because retail prices effectively capture the marketplace value marginal consumers place on the collection of characteristics and functions that define any given service, ratios of retail prices can serve as a useful estimate of the difference in value between the

features and capabilities of one service versus another to marginal consumers.<sup>28</sup>

In addition, if one can identify two services that are essentially identical save for one feature, *e.g.*, interactivity vs. non-interactivity, retail prices of the two services offer meaningful insight into the incremental value interactivity adds to a service.

#### **B. Ratio of Retail Prices for Sirius XM and Interactive Subscription Services to Account for Differences in the Two Services**

46. With this discussion as a backdrop, I now offer two alternative estimates of market-based rates for the licensing of sound recordings to Sirius XM. The starting point for each approach is the actual per-subscriber rates paid by a number of interactive subscription services, *i.e.*, actual monthly licensing fees paid divided by the monthly subscriber counts.<sup>29</sup> The rates presented in the Table Three below<sup>30</sup> yield an unweighted average monthly rate of \$5.95 per-subscriber.

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<sup>28</sup> In other words, insofar as consumers derive greater (or lesser) value from a certain collection of attributes, a service with these attributes will command a premium (or require a discount) in the marketplace, as reflected in retail prices to consumers.

<sup>29</sup> In determining the services to include in the following analysis, I focused primarily on the subscription services that currently are offered to new subscribers. The one exception is Napster Streaming + Mobile, which, as a result of Rhapsody's purchase of Napster, is no longer offered, but still maintains a meaningful number of subscribers. Moreover, I excluded from the following analysis those services that bundle other platforms, such as permanent downloads or mobile phone ringtones, with an interactive streaming service for one price. I also excluded those services that permit streaming to more than one mobile device for a single subscription fee.

<sup>30</sup> A comparison of Tables One and Three reveal two differences in terms of the services presented, specifically the exclusion of Zune and Rhapsody Portable from Table Three. In the case of Zune (which until recently featured an interactive subscription service that included a limited number of download credits), licensing fees for the applicable time period are calculated according to an allocation scheme that assigns a portion of revenues and subscribers to the streaming component of the service and another portion to the download credits. The mechanics of the allocation scheme do not impact the percentage-of-revenue calculations, but they do serve to artificially reduce the actual per-subscriber rates to levels substantially below those observed for the interactive subscription services listed in Table Three. That is, the allocation scheme results, in my view, in an understatement of the actual per-subscriber rates paid by Microsoft because it assigns a disproportionate amount of the service's subscribers and revenues to the download component. In particular, the download component is allocated a portion of revenues

(footnote continued ...)

**Table Three: Actual Royalty Payments Per-Subscriber  
(RESTRICTED)**

Label	Service	2H2010	2011	Total
EMI	Napster Streaming + Mobile	████	████	████
	Rhapsody Limited Portable	████	████	████
	Spotify Premium + Mobile		████	████
	MOG	████	████	████
	Slacker Premium Service		████	████
	Rdio Portable	████	████	████
Sony	Napster Streaming + Mobile	████	████	████
	Rhapsody Limited Portable	████	████	████
	MOG	████	████	████
	Rdio Portable	████	████	████
UMG	Napster Streaming + Mobile	████	████	████
	Rhapsody Limited Portable	████	████	████
	MOG		████	████
	Spotify Portable		████	████
	Rdio Portable		████	████
WMG	Napster Streaming + Mobile	████	████	████
	MOG	████	████	████
	Slacker Premium Service		████	████
	Rdio Portable	████	████	████

Source: Royalty payment data from EMI, Sony, Universal, and Warner.

47. In order to develop from this \$5.95 monthly per-subscriber rate an equivalent monthly per-subscriber rate for Sirius XM, it is necessary to account for the different features and functions embodied in each service. In many important respects, the two services are quite similar. They both (i) distribute digital music content to consumers, (ii) employ subscription models that provide

(... footnote continued)

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and subscribers that appears to be based on an expectation that all download credits will be redeemed, but as the royalty statements make clear, this has not been the case. With respect to Rhapsody Portable, the service allows subscribers to stream music to multiple mobile devices. The services included in Table Three uniformly allow streaming to a single mobile device, and thus to maintain consistency, Rhapsody Portable is not included. For purposes of Table One, which again focuses on license payments as a percentage of revenue, the particular features, and resulting higher monthly price, of Rhapsody Portable are not, in my view, material grounds for its exclusion. And in any case, its exclusion would not compel any alteration to my conclusions.

unlimited access to content, (iii) are mobile, and (iv) provide immediate access to content, *i.e.*, neither service requires a subscriber to download content prior to listening.

48. Interactivity is one important dimension along which the two services differ. While interactive subscription services afford consumers complete control over the music to which they listen, subscribers to satellite radio control the delivery of music only to the extent that they can choose from a broad range of channels, some of which focus on a particular narrow genre of music.<sup>31</sup> This is not to say that the two services are otherwise identical. For example, there are differences in audio quality and in availability of transmissions (*e.g.*, Sirius XM's satellite coverage offers availability almost anywhere in the United States, while mobile streaming services require access to a high-speed wireless network). Moreover, while each service offers mobility in a general sense, its specific form differs: satellite radio primarily provides in-vehicle mobility while interactive subscription services provide mobility in the sense that users can enjoy the service on a mobile device with an Internet connection. It is theoretically possible that there is no meaningful difference in value between the two forms of mobility, but there is no *a priori* reason why this has to be the case.

49. My first approach to adjusting actual per-subscriber rates paid by interactive subscription services (*i.e.*, licensing fees divided by total subscribers) utilizes a method of adjustment that incorporates all differences in attributes and functionality as between satellite radio and the benchmark marketplace. In other words, its underlying premise is that material differences between the two services are not limited to interactivity. A reasonable estimate of the value differential between the two services, taking account of the collection of features and functions that define each service, can be obtained by comparing their retail prices.

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<sup>31</sup> Interactive services also generally offer radio-like functionality as part of their offering.

50. To do so first requires an estimate of the retail price for a hypothetical music-only satellite radio service, because unlike satellite radio, interactive subscription services offer access to music content only. As noted already, Sirius XM offers “Select” packages that represent the opening price point for offerings that bundle together music and non-music content.<sup>32</sup> Currently, subscribers to the “Select” packages are charged \$12.95 per-month.<sup>33</sup> Based on my earlier estimate that music content accounts for roughly one-half of the overall value of the Sirius XM service, the price of a hypothetical music-only satellite radio service reasonably can be estimated as 50% of \$12.95, or \$6.475.<sup>34</sup>

51. In Table Four below, I present monthly retail prices for the interactive subscription services listed in Table Three. These data show a uniform monthly retail price of \$9.99.<sup>35</sup>

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<sup>32</sup> <http://www.Sirius XM.com/ourmostpopularpackages-sirius>; <http://www.Sirius XM.com/ourmostpopularpackages-xm>.

<sup>33</sup> As noted earlier, Sirius XM has announced its intention to increase, starting January 1, 2012, the monthly price of Select packages to \$14.49.

<sup>34</sup> The applicability of the Music Royalty Fee to this hypothetical music-only service offering could also increase the price. Without more information as to the prevalence of the Fee, however, I have excluded it from the current calculations.

<sup>35</sup> Based on a review of other interactive services operating in the marketplace, it appears that \$9.99 is the prevailing price for a subscription interactive service that allows for streaming to one mobile device. A number of these services have entered the market too recently to have generated sufficient data to be included in Table Three.

**Table Four: Monthly Prices for Interactive Subscription Services**

Service	Monthly Retail Price
Mog Primo	\$9.99
Rdio Unlimited	\$9.99
Rhapsody Premiere	\$9.99
Slacker Premium Radio	\$9.99
Spotify Premium	\$9.99

Source: Service websites

Using a monthly retail price of \$9.99 for interactive subscription services, the ratio yielded by a comparison of this price and the estimated \$6.475 monthly price for a hypothetical music-only satellite radio service is  $\$6.475/\$9.99$ , or 64.81%. This percentage, when applied to the actual per-subscriber rate of \$5.95 calculated from data on the licensing fees paid by interactive subscription services to the four major record companies, results in an equivalent per-subscriber rate of  $(\$5.95 * .6481)$ , or \$3.86 for a hypothetical Sirius XM music-only service.

52. The final step in this analysis is to convert the estimated per-subscriber rate for a hypothetical Sirius XM music-only service into an equivalent percentage-of-revenue rate. This is accomplished by finding the ratio of the estimated monthly per-subscriber rate (\$3.86) and the monthly retail price paid by subscribers to Sirius XM's Select packages. As noted above, that monthly retail price is equal to the subscription price of \$12.95.<sup>36</sup> Thus, the estimated monthly per-subscriber rate for a hypothetical Sirius XM music-only service yields a percentage-of-revenue rate of  $(\$3.86/\$12.95)$ , or 29.81%. Importantly, because the numerator reflects a music-only service while the denominator reflects the retail price for a service that combines music and non-music content, the resulting rate appropriately is applied against Sirius XM's total subscription revenues. That

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<sup>36</sup> I again note the potential applicability of the monthly \$1.40 Music Royalty Fee as relevant to the value of music on Sirius XM and the overall subscription price.



is, application of the rate does not require any further adjustment to Sirius XM's subscription revenues to account for the estimated portion reasonably attributable to the distribution of non-music content.

**C. Accounting Specifically for Interactivity of Benchmark Streaming Services vs. Non-Interactivity of Satellite Radio**

53. My second approach is similar in concept to the first, but differs as a practical matter in that it assumes interactivity represents the only non-trivial difference between interactive subscription services and satellite radio, *i.e.*, the only difference that is sufficiently material to warrant an adjustment. This approach, in my view, is the most conservative of those presented in this report (*i.e.*, it generates a lower-bound estimate of reasonable rates) insofar as it ignores other differences between the two types of service that would support imposition of higher rates. In particular, as demonstrated below in a comparison of retail prices for interactive and non-interactive subscription services, which effectively isolates interactivity as the only difference of any consequence, the addition of interactivity increases the value of the service by roughly 2.1 times. The fact that this ratio is substantially greater than the ratio of retail prices for interactive subscription services and satellite radio strongly suggests that there are other differences between the two services that influence their relative values to consumers. In other words, accounting only for interactivity leads to a downward adjustment of benchmark rates that quite likely overstates the extent to which the average marginal consumer values interactive subscription services more highly relative to a hypothetical music-only satellite radio offering.

54. A reasonable estimate of the incremental value of interactivity can be developed by comparing the retail prices of two services – interactive and non-interactive subscription streaming services – that are distinguishable only with respect to interactivity. The table below presents a summary of monthly retail prices for non-interactive subscription services. A simple average of the reported monthly prices is \$4.86.

**Table Five: Monthly Prices for Non-Interactive Subscription Services**

Service	Monthly Retail Price
Pandora One	\$3.00
Last.fm	\$3.00
Live365 VIP Annual/6-month/3-month	\$5.95/\$6.95/\$7.95
Musicoverly Premium Annual/3-month	\$4.00/\$5.00
Sky.fm Premium 2-year/Annual/Monthly	\$3.71/\$4.08/\$4.99

Source: Service websites

55. A reasonable estimate of the incremental value of interactivity can be obtained by comparing the average monthly price of non-interactive subscription services, reported above as \$4.86, and the earlier reported average monthly price for interactive subscription services of \$9.99. The ratio of these two prices, .4865 ( $\$4.86/\$9.99$ ), provides the adjustment factor to apply to the actual monthly per-subscriber rate of \$5.95 for interactive subscription services in order to estimate an equivalent rate for satellite radio, which is being treated as a non-interactive service. In other words, under the assumption that interactivity is the only material difference between interactive subscription services and satellite radio, the actual monthly licensing fees per-subscriber paid by interactive subscription services is adjusted by the factor .4865 to derive an equivalent monthly per-subscriber rate for Sirius XM. This calculation yields a monthly per-subscriber rate of \$2.89 ( $.4865 * \$5.95$ ).

56. The final step is to convert the monthly \$2.89 per-subscriber rate into a percentage-of-revenue rate. As before, this is accomplished by dividing \$2.89 by the \$12.95 monthly charge paid by subscribers to Sirius XM's Select packages, which results in a percentage-of-revenue rate of 22.32%.

#### **D. Conclusion**

57. The table below summarizes the range of percentage-of-revenue rates generated by the several alternative approaches discussed in my report.

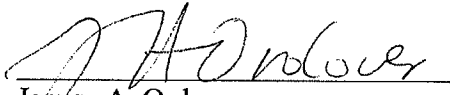
**Table Six: Summary of Reasonable Percentage-of-Revenue Rates for Sirius XM**

<b>Approach</b>	<b>% of Revenue Rate(s)</b>
Actual Licensing Fees as % of Gross Revenues (Interactive Subscription Services)	30% - 32.5%
Actual Licensing Fees Per-Subscriber (Interactive Subscription Services), adjusted by ratio of Monthly Price for Hypothetical Music-Only Satellite Radio Service and Average Monthly Price across Interactive Subscription Services	29.81%
Actual Licensing Fees Per-Subscriber (Interactive Subscription Services), adjusted by ratio Average Monthly Price for Non-Interactive Subscription Services and Average Monthly Price for Interactive Subscription Services	22.32%

In sum, the range of rates developed in this report support the reasonableness of the rates advocated by SoundExchange, and indeed, if anything, reinforce the conservative nature of SoundExchange's rate proposal.

I declare under penalty of perjury that the foregoing is true and correct.

Date: 11/28/2011

  
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Janusz A. Ordovery

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### EDUCATION

- 1968-1973 Columbia University, New York, New York  
Graduate Department of Economics and European Institute of the School of International  
Affairs, Ph.D. 1973  
Doctoral Dissertation: Three Essays on Economic Theory (May 1973).
- 1967-1968 McGill University, Montreal, Canada  
Departments of Economics and Political Science
- 1963-1966 Warsaw University, Warsaw, Poland  
Department of Political Economy. B.A. (equiv.), 1966.

### HONORS

- 1973 Columbia University: Highest distinction for the doctoral dissertation
- 1971-1972 Columbia University: Honorary President's Fellow
- 1969-1971 Columbia University: President's Fellow
- 1967-1968 McGill University: Honors Student
- 1964, 1965 Warsaw University: Award for Academic Achievement, Department of Political Economy
- Who's Who in the World  
Who's Who in America  
Who's Who in the East  
"Economist of the Year" 2010, Global Competition Review

### PROFESSIONAL EXPERIENCE

- June 1982 - Professor of Economics

present Department of Economics, New York University, New York, New York

Sept. 1996 - Director of Masters in Economics Program  
Aug. 2001 Department of Economics, New York University, New York, New York

Summer 1996- Lecturer  
2000 International Program on Privatization and Reform  
Institute for International Development, Harvard University, Cambridge, Massachusetts

Aug. 1991 - Deputy Assistant Attorney General for Economics  
Oct. 1992 Antitrust Division  
United States Department of Justice, Washington, D.C.

Sept. 1989 - Visiting Professor of Economics  
July 1990 School of Management, Yale University, New Haven, Connecticut

Lecturer in Law  
Yale Law School

Mar. 1984 - Visiting Professor of Economics  
June 1988 Universita Commerciale "Luigi Bocconi", Milan, Italy

June 1982 - Director of Graduate Studies  
Feb. 1985 Department of Economics, New York University

Sept. 1982 - Adjunct Professor of Law (part-time)  
June 1986 Columbia University Law School, New York, New York

Feb. 1982 - Acting Director of Graduate Studies  
June 1982 Department of Economics, New York University

June 1978 - Associate Professor of Economics  
June 1982 Department of Economics, New York University

Sept. 1979 - Lecturer in Economics and Antitrust  
May 1990 New York University Law School

Sept. 1977 - Member, Technical Staff  
June 1978 Bell Laboratories, Holmdel, New Jersey

Associate Professor of Economics  
Columbia University

Visiting Research Scholar  
Center for Law and Economics, University of Miami, Miami, Florida

Sept. 1973 - Assistant Professor of Economics  
Aug. 1977 New York University

Summer 1976 Fellow, Legal Institute for Economists,  
Center for Law and Economics, University of Miami

Summer 1976 Visiting Researcher Bell Laboratories, Holmdel, New Jersey

### **OTHER PROFESSIONAL ACTIVITIES**

2010 – present Member, ABA Section of Antitrust Law, Economics Task Force

2006 - present Special Consultant, Compass Lexecon (formerly Compass)/FTI Company, Washington, D.C.

2003 - 2006 Director, Competition Policy Associates, Inc. (“Compass”), Washington, D.C.

1997 – 1999 Consultant, Inter-American Development Bank, Washington, D.C.

1997 – present Board of Editors, *Antitrust Report*

1995 – 2001 Consultant, The World Bank, Washington, D.C.

1998 – 2004 Senior Consultant  
Applied Economic Solutions, Inc., San Francisco, California

1995 - 2000 Senior Affiliate  
Cornerstone Research, Inc., Palo Alto, California

various Testimony at Hearings of the Federal Trade Commission

1994 - 1996 Senior Affiliate  
Law and Economics Consulting Group, Emoryville, California

1994 - 2000 Senior Affiliate  
Consultants in Industry Economics, LLC, Princeton, New Jersey

1993 - 1994 Director  
Consultants in Industry Economics, Inc., Princeton, New Jersey

1992 - 1993 Vice-Chair (*pro tempore*)  
Economics Committee, American Bar Association, Chicago, Illinois

1990 - 1991 Senior Consultant  
1992 - 1995 Organization for Economic Cooperation and Development, Paris, France

1991 Member  
*Ad hoc* Working Group on Bulgaria's Draft Antitrust Law  
The Central and East European Law Initiative  
American Bar Association

1990 - 1991 Advisor  
Polish Ministry of Finance and Anti-Monopoly Office  
Warsaw, Poland

1990 - 1991 Member  
Special Committee on Antitrust  
Section of Antitrust Law, American Bar Association

1990 - 1991 Director and Senior Advisor  
Putnam, Hayes & Bartlett, Inc., Washington, D.C.

1990 - 1996 Member  
Predatory Pricing Monograph Task Force  
Section of Antitrust Law, American Bar Association

1989 Hearings on Competitive Issues in the Cable TV Industry  
Subcommittee on Monopolies and Business Rights of the Senate Judiciary Committee  
Washington, D.C.

1989 Member  
EEC Merger Control Task Force, American Bar Association

1988 - present Associate Member  
American Bar Association

1987 - 1989 Adjunct Member  
Antitrust and Trade Regulation Committee, The Association of the Bar of the City of New York

1984 Speaker, "Industrial and Intellectual Property: The Antitrust Interface"  
National Institutes, American Bar Association, Philadelphia, Pennsylvania

1983 - 1990 Director  
Consultants in Industry Economics, Inc

1982 Member  
Organizing Committee  
Tenth Annual Telecommunications Policy Research Conference, Annapolis, Maryland

1981 Member  
Section 7 Clayton Act Committee, Project on Revising Merger Guidelines  
American Bar Association

1980 Organizer  
Invited Session on Law and Economics  
American Economic Association Meetings, Denver, Colorado

1978 - 1979 Member  
Department of Commerce Technical Advisory Board  
Scientific and Technical Information Economics and Pricing Subgroup

1978 – present Referee for numerous scholarly journals, publishers, and the National Science Foundation

#### **MEMBERSHIPS IN PROFESSIONAL SOCIETIES**

American Economic Association  
American Bar Association



## PUBLICATIONS

### A. Journal Articles

- "Coordinated Effects in Merger Analysis: An Introduction," *Columbia Bus. Law Review*, No. 2, 2007, 411-36.
- "Wholesale access in multi-firm markets: When is it profitable to supply a competitor?" with Greg Shaffer, *International Journal of Industrial Organization*, vol. 25 (5), October 2007, 1026-45.
- "Merchant Benefits and Public Policy towards Interchange: An Economic Assessment," with M. Guerin-Calvert, *Review of Network Economics: Special Issue*, vol. 4 (4), December 2005, 381-414.
- "All-Units Discounts in Retail Contracts," with S. Kolay and G. Shaffer, *J. of Economics and Management Strategy*, vol. 13 (3), September 2004, 429-59.
- "Archimedean Leveraging and the GE/Honeywell Transaction," with R. J. Reynolds, *Antitrust Law Journal*, vol. 70, no. 1, 2002, 171-98.
- "Entrepreneurship, Access Policy and Economic Development: Lessons from Industrial Organizations," with M. A. Dutz and R. D. Willig, *European Economic Review*, vol. 4, no. 4-6, May 2000.
- "Parity Pricing and its Critics: Necessary Condition for Efficiency in Provision of Bottleneck Services to Competitors," with W. J. Baumol and R. D. Willig, *Yale Journal on Regulation*, vol. 14, Winter 1997, 146-63.
- "Competition and Trade Law and the Case for a Modest Linkage," with E. Fox, *World Competition, Law and Economics Review*, vol. 19, December 1995, 5-34.
- "On the Perils of Vertical Control by a Partial Owner of Downstream Enterprise," with W.J. Baumol, *Revue D'économie industrielle*, No. 69, 3<sup>e</sup> trimestre 1994, 7-20.
- "Competition Policy for Natural Monopolies in Developing Market Economy," with R.W. Pittman and P. Clyde, *Economics of Transition*, vol. 2, no. 3, September 1994, 317-343. Reprinted in B. Clay (ed), *De-monopolization and Competition Policy in Post-Communist Economies*, Westview Press 1996, 159-193.
- "The 1992 Agency Horizontal Merger Guidelines and the Department of Justice's Approach to Bank Merger Analysis," with M. Guerin-Calvert, *Antitrust Bulletin*, vol. 37, no. 3, 667-688. Reprinted in *Proceedings of the 1992 Conference on Bank Structure and Competition: Credit Markets in Transition*, Federal Reserve Bank of Chicago, 1992, 541-560.
- "Entry Analysis Under the 1992 Horizontal Merger Guidelines," with Jonathan B. Baker, *Antitrust Law Journal*, vol. 61, no. 1, Summer 1992, 139-146.
- "Economics and the 1992 Merger Guidelines: A Brief Survey," with Robert D. Willig, *Review of Industrial Organization*, vol. 8, 139-150, 1993. Reprinted in E. Fox and J. Halverson (eds.), *Collaborations Among Competitors: Antitrust Policy and Economics*, American Bar Association, 1992, 639-652.
- "Equilibrium Vertical Foreclosure: A Reply," with G. Saloner and S.C. Salop, *American Economic Review*, vol. 82, no. 3, 1992, 698-703.
- "A Patent System for Both Diffusion and Exclusion," *Journal of Economic Perspectives*, vol. 5, Winter 1991, 43-60.

"R&D Cooperation and Competition," with M. Katz, *Brookings Papers on Economic Activity: Microeconomics*, 1990, 137-203.

"Equilibrium Vertical Foreclosure," with G. Saloner and S. Salop, *American Economic Review*, vol. 80, March 1990, 127-142.

"Antitrust Policy for High-Technology Industries," with W.J. Baumol, *Oxford Review of Economic Policy*, vol. 4, Winter 1988, 13-34. Reprinted in E. Fox and J. Halverson (eds.), *Collaborations Among Competitors: Antitrust Policy and Economics*, American Bar Association, 1991, 949-984.

"Conflicts of Jurisdiction: Antitrust and Industrial Policy," *Law and Contemporary Problems*, vol. 50, Summer 1987, 165-178.

"Market Structure and Optimal Management Organization," with C. Bull, *Rand Journal of Economics*, vol. 18, no. 4, Winter 1987, 480-491.

"A Sequential Concession Game with Asymmetric Information," with A. Rubinstein, *Quarterly Journal of Economics*, vol. 101, no.4, November 1986, 879-888.

"The G.M.-Toyota Joint Venture: An Economic Assessment," with C. Shapiro, *Wayne Law Journal*, vol. 31, no. 4, 1985, 1167-1194.

"Economic Foundations and Considerations in Protecting Industrial and Intellectual Property: An Introduction," *ABA Antitrust Law Journal*, vol. 53, no. 3, 1985. 503-518, Comments, 523-532.

"Antitrust for High-Technology Industries: Assessing Research Joint Ventures and Mergers," with R.D. Willig, *Journal of Law and Economics*, vol. 28, May 1985, 311-334.

"Use of Antitrust to Subvert Competition," with W.J. Baumol, *Journal of Law and Economics*, vol. 28, May 1985, 247-266. Reprinted in *Journal of Reprints for Antitrust Law and Economics*, vol. 16, no. 2.

"Advances in Supervision Technology and Economic Welfare: A General Equilibrium Analysis," with C. Shapiro, *Journal of Public Economics*, vol. 25/3, 1985, 371-390.

"Predatory Systems Rivalry: A Reply," with A. O. Sykes and R. D. Willig, 83 *Columbia Law Review*, June 1983, 1150-1166. Reprinted in *Corporate Counsel*, Matthew Bender & Company, 1984, 433-450.

"The 1982 Department of Justice Merger Guidelines: An Economic Assessment," with R. D. Willig, 71 *California Law Review*, March 1983,535-574. Reprinted in *Antitrust Policy in Transition: The Convergence of Law and Economics*, E. Fox and J. Halverson (eds.), American Bar Association Press, 1984, 267-304.

"Unfair International Trade Practices," with A. O. Sykes and R. D. Willig, 15 *Journal of International Law and Politics*, Winter 1983, 323-338.

"On Non-linear Pricing of Inputs," with J. Panzar, *International Economic Review*, October 1982, 659-675.

"Herfindahl Concentration, Rivalry and Mergers," with A. O. Sykes and R. D. Willig, *Harvard Law Review*, vol. 95, June 1982, 1857-1875.

"A Reply to 'Journals as Shared Goods: Comment,'" with R. D. Willig, *American Economic Review*, June 1982, 603-607.

"Proposed Revisions to the Justice Department's Merger Guidelines," with S. Edwards, *et al.*, *Columbia Law Review*, vol. 81, December 1981, 1543-1591.

"An Economic Definition of Predation: Pricing and Product Innovation," with R.D. Willig, *Yale Law Journal*, vol. 91, November 1981, 8-53.

"On the Consequences of Costly Litigation in the Model of Single Activity Accidents: Some New Results," *Journal of Legal Studies*, June 1981, 269-291.

"On the Political Sustainability of Taxes," with A. Schotter, *American Economic Review Papers and Proceedings*, May 1981, 278-282.

"Information and the Law: Evaluating Legal Restrictions on Competitive Contracts," with A. Weiss, *American Economic Review Papers and Proceedings*, May 1981, 399-404.

"Redistributing Incomes: *Ex Ante* or *Ex Post*," *Economic Inquiry*, April 1981, 333-349.

"On the Nonexistence of *Pareto Superior* Outlay Schedules," with J. Panzar, *The Bell Journal of Economics*, Spring 1980, 351-354.

"The Role of Information in the Design of Public Policy Towards Externalities," with R. D. Willig, *Journal of Public Economics*, December 1979, 271-299.

"On the Concept of Optimal Taxation in the Overlapping-Generations Model of Efficient Growth," with E.S. Phelps, *Journal of Public Economics*, August 1979, 1-27.

"Products Liability in Markets With Heterogeneous Consumers," *Journal of Legal Studies*, June 1979, 505-525.

"Costly Litigation and the Tort Law: Single Activity Accidents," *Journal of Legal Studies*, June 1978, 243-261.

"On the Optimal Provision of Journals Qua Excludable Public Goods," with R. D. Willig, *American Economic Review*, June 1978, 324-338.

"Distortionary Wage Differentials in a Two-Sector Growth Model: Some Theorems on Factor Earnings," *International Economic Review*, June 1978, 321-333.

"On the Optimality of Public-Goods Pricing with Exclusion Devices," with W.J. Baumol, *Kyklos*, Fasc. 1, 1977, 5-21.

"Public Good Properties in Reality: The Case of Scientific Journals," with W.J. Baumol, *Proceedings of the ASIS Meetings*, San Francisco, October 1976.

"Merger Illusions and Externalities: A Note," with A. Schotter, *Eastern Economic Review*, November 1976, 19-21.

"Distributive Justice and Optimal Taxation of Wages and Interest in a Growing Economy," *Journal of Public Economics*, January 1976, 139-160.

"Linear Taxation of Wealth and Wages for Intragenerational Lifetime Justice: Some Steady-State Cases," with E.S. Phelps, *American Economic Review*, September 1975, 660-673.

## **B. Books and Monographs**

*Proceedings of the Tenth Annual Telecommunications Policy Research Conference*, editor with O. Gandy and P. Espinosa, ABLEX Publishers, 1983.

*Obstacles to Trade and Competition*, with L. Goldberg, OECD, Paris, 1993.

*Predatory Pricing*, with William Green, *et al.*, American Bar Association, Section of Antitrust Law, Monograph 22, 1996.

### **C. Book Chapters**

"Coordinated Effects," chap. 27, in *Issues in Competition Law and Policy*, vol. 2, American Bar Association, 2008, 1359-1384.

"Practical Rules for Pricing Access in Telecommunications," with R. D. Willig, Chap. 6, in *Second-Generations Reforms in Infrastructure Services*, F. Besanes and R. D. Willig (eds.), Inter-American Development Bank, Washington, D.C., April 2002, 149-76.

"Sustainable Privatization of Latin American Infrastructure: The Role of Law and Regulatory Institutions," with Evamaria Uribe, Chap. 1 in F. Basanes, E. Uribe, R. D. Willig (eds.), *Can Privatization Deliver? Infrastructure for Latin America*, The Johns Hopkins U. P. for Inter-American Development Bank, 1999, 9-32.

"Access and Bundling in High-Technology Markets," with R. D. Willig, Chap. 6, in J. A. Eisenach and T. M. Leonard, (eds.), *Competition, Innovation, and the Microsoft Monopoly: The Role of Antitrust in the Digital Marketplace*, Kluwer Academic Press, 1999, 103-29.

"The Harmonization of Competition and Trade Law," with E. Fox, Chap. 15 in L. Waverman, *et al.* (eds.), *Competition Policy in the Global Economy*, Routledge, 1997, 407-439.

"Transition to a Market Economy: Some Industrial Organization Issues," with M. Iwanek, Chap. 7 in H. Kierzkowski, *et al.* (eds.), *Stabilization and Structural Adjustment in Poland*, Routledge, 1993, 133-170.

"Competition Policies for Natural Monopolies in a Developing Market Economy," with Russell Pittman, *Butterworth's Trade and Finance in Central and Eastern Europe*, Butterworth Law Publishers Ltd., 1993, 78-88, Reprinted in *Journal for Shareholders* (published by the Russian Union of Shareholder), Moscow, January 1993, 33-36; *Versenyfelügyeleti Ertesito* (Bulletin of Competition Supervision), Budapest, vol. 3, no. 1-2, January 1993, 30-41; *Narodni Hospodarstvi* (National Economy), Prague; *ICE: Revista de Economia*, No. 736 (December 1994) (in Spanish), 69-90.

"Antitrust: Source of Dynamic and Static Inefficiencies?" with W.J. Baumol, in T. Jorde and D. Teece (eds.), *Antitrust, Innovation, and Competitiveness*, Oxford University Press, 1992, 82-97. Reprinted in "The Journal of Reprints for Antitrust Law and Economics," vol. 26, no. 1, 1996.

"Economic Foundations of Competition Policy: A Review of Recent Contributions," in W. Comanor, *et al.*, *Competition Policy in Europe and North America: Economic Issues and Institutions, Fundamentals of Pure and Applied Economics* (Vol. 43), Harwood Academic Publishers, 1990, 7-42.

"The Department of Justice 1988 Guidelines for International Operations: An Economic Assessment," with A.O. Sykes, in B. Hawk (ed.), *European/American Antitrust and Trade Laws*, Matthew Bender, 1989, 4.1-4.18.

"Predation, Monopolization, and Antitrust," with G. Saloner, in R. Schmalensee and R.D. Willig (eds.), *Handbook of Industrial Organization*, vol. 1, North Holland, 1989, 538-596.

"Supervision Technology, Firm Structure, and Employees' Welfare," in *Prices, Competition and Equilibrium*, M. Peston and R.E. Quandt (eds.), Philip Allan Publishers, Ltd., 1986, 142-163.

"Perspectives on Mergers and World Competition," with R.D. Willig, in *Antitrust and Regulation*, R. Grieson (ed.), Lexington Books, 1986, 201-218.

"Transnational Antitrust and Economics," in *Antitrust and Trade Policies in International Trade*, B. Hawk (ed.), Matthew Bender, 1985, 233-248.

"Pricing of Interexchange Access: Some Thoughts on the Third Report and Order in FCC Docket No. 78-72," in *Proceedings of the Eleventh Annual Telecommunications Policy Research Conference*, Vincent Mosco (ed.), ABLEX Publishers, 1984, 145-161.

"Non-Price Anticompetitive Behavior by Dominant Firms Toward the Producers of Complementary Products," with A.O. Sykes and R.D. Willig, in *Antitrust and Regulation: Essays in Memory of John McGowan*, F. Fisher (ed.), MIT Press, 1985, 315-330.

"Local Telephone Pricing in a Competitive Environment," with R.D. Willig, in *Regulating New Telecommunication Networks*, E. Noam (ed.), Harcourt Brace Jovanovich, 1983, 267-289.

"An Economic Definition of Predatory Product Innovation," with R.D. Willig, in *Strategy, Predation and Antitrust Analysis*, S. Salop (ed.), Federal Trade Commission, 1981, 301-396.

"Marginal Cost," in *Encyclopedia of Economics*, D. Greenwald (ed.), McGraw-Hill, 2nd ed. 1994, 627-630.

"Understanding Economic Justice: Some Recent Development in Pure and Applied Welfare Economics," in *Economic Perspectives*, M. Ballabon (ed.) Harwood Academic Publishers, vol. 1, 1979, 51-72.

"Problems of Political Equilibrium in the Soviet Proposals for a European Security Conference," in *Columbia Essays in International Affairs*, Andrew W. Cordier (ed.) Columbia University Press, New York, 1971, 1951-197

#### **D. Other Publications**

"The 2010 Horizontal Merger Guidelines: A Static Compass in Dynamic World?" with J. Ezrielev, *Antitrust Source*, vol. 10, No. 1, October 2010.

"The Economics of Price Discrimination," with Doug Fontaine and Greg Shaffer, in *The Economics of the Internet, The Vodafone Policy Paper Series*, No. 11, April 11, 2010, 27-51.

"How Loyalty Discounts Can Perversely Discourage Discounting: Comment," with Assaf Eilat, et al, *The CPI Antitrust Journal*, April 2010 (1).

"Economic Analysis in Antitrust Class Certification: *Hydrogen Peroxide*," with Paul Godek, *Antitrust Magazine*, vol. 24, No. 1, Fall 2009, pp. 62-65.

"Comments on Evans & Schmalensee's 'The Industrial Organization of Markets with Two-Sided Platforms'," *Competition Policy International*, vol. 3(1), Spring 2007, 181-90.

"Safer Than A Known Way? A Critique of the FTC's Report on Competition and Patent Law and Policy," with I. Simmons and D. A. Applebaum, *Antitrust Magazine*, Spring 2004, 39-43.

"Predatory Pricing," in Peter Newman (ed.), *The New Palgrave Dictionary of Economics and the Law*, Grove Dictionaries, New York, 1999. Revised in *The New Palgrave Dictionary of Economics*, 2<sup>nd</sup> edition, S. Durlauf and L. Blume (editors) (forthcoming 2007).

Book review of L. Phlips, *Competition Policy: A Game Theoretic Perspective*, reviewed in *Journal of Economic Literature*, vol. 35, No.3, September 1997, 1408-9.

"The Role of Efficiencies in Merger Assessment: The 1997 Guidelines," *Antitrust Report*, September 1997, 10-17.

"Bingaman's Antitrust Era," *Regulation*, vol. 20, No. 2, Spring 1997, 21-26.

"Competition Policy for High-Technology Industries," *International Business Lawyer*, vol. 24, No. 10, November 1996, 479-82.

"Internationalizing Competition Law to Limit Parochial State and Private Action: Moving Towards the Vision of World Welfare," with E.M. Fox, *International Business Lawyer*, vol. 24, No. 10, November 1996, 458-62.

"Economists' View: The Department of Justice Draft for the Licensing and Acquisition of Intellectual Property," *Antitrust*, vol. 9, No. 2, Spring 1995, 29-36.

"Competition Policy During Transformation to a Centrally Planned Economy: A Comment," with R.W. Pittman, in B. Hawk (ed.), *1992 Fordham Corporate Law Institute*, 533-38.

"Poland: The First 1,000 Days and Beyond," *Economic Times*, vol. 3, no. 9, October 1992, 6-7.

"Interview: Janusz A. Ordovery: A Merger of Standards? The 1992 Merger Guidelines," *Antitrust*, vol. 6, no. 3, Summer 1992, 12-16.

"Interview: U.S. Justice Department's New Chief Economist: Janusz A. Ordovery," *International Merger Law*, no. 14, October 1991.

"Poland: Economy in Transition," *Business Economics*, vol. 26, no. 1, January 1991, 25-30.

"Economic Analysis of Section 337: Protectionism versus Protection of Intellectual Property," with R.D. Willig, in *Technology, Trade and World Competition*, JEIDA Conference Proceedings, Washington, D.C., 1990, 199-232.

"Eastern Europe Needs Antitrust Now," with E. Fox, *New York Law Journal*, November 23, 1990, 1-4.

"Understanding Econometric Methods of Market Definition," with D. Wall, *Antitrust*, vol. 3, no. 3, Summer 1989, 20-25.

"Proving Entry Barriers: A Practical Guide to Economics of Entry," with D. Wall, *Antitrust*, vol. 2, no. 2, Winter 1988, 12-17.

"Proving Predation After Monfort and Matsushita: What the New 'New Learning' has to Offer," with D. Wall, *Antitrust*, vol. 1, no. 3, Summer 1987, 5-11.

"The Costs of the Tort System," with A. Schotter, Economic Policy Paper No. PP-42, New York University, March 1986. Reprinted in *Congressional Record*, U.S. Government Printing Office, Washington, D.C., 1987.

"An Economic Definition of Predation: Pricing and Product Innovation," with R.D. Willig, Report for the Federal Trade Commission, October 1982, 131 pp.

"Market Power and Market Definition," with R.D. Willig, Memorandum for ABA Section 7 Clayton Act Committee, Project on Revising the Merger Guidelines, May 1981.

"Herfindahl Concentration Index," with R.D. Willig, Memorandum for ABA Section 7 Clayton Act Committee, Project on Revising the Merger Guidelines, March 1981.

"Public Interest Pricing of Scientific and Technical Information," Report for the Department of Commerce Technical Advisory Board, September 1979.

"Economics of Property Rights as Applied to Computer Software and Databases," with Y.M. Braunstein, D.M. Fischer, W.J. Baumol, prepared for the National Commission on New Technological Uses of Copyrighted Works, June 1977, 140 pp. Reprinted in part in *Technology and Copyright*, R.H. Dreyfuss (ed.), Lemond Publications, 1978.

Book review of O. Morgenstern and G.L. Thompson, *Economic Theory of Expanding and Contracting Economies*, reviewed in *Southern Economic Journal*, September 1978.

"Manual of Pricing and Cost Determination for Organizations Engaged in Dissemination of Knowledge," with W.J. Baumol, Y.M. Braunstein, D.M. Fischer, prepared for the Division of Science Information, NSF April 1977, 150 pp.

#### **UNPUBLISHED PAPERS**

"Exclusionary Discounts," with Greg Shaffer, August 2006.

"Regulation of Credit Card Interchange Fees and Incentives for Network Investments," with Y. Wang, Competition Policy Associates WP, Washington D.C. September 2005.

"Economics, Antitrust and the Motion Picture Industry," C.V. Starr Center Policy Paper, July 1983.

"On Bargaining, Settling, and Litigating: A Problem in Multiperiod Games With Imperfect Information," with A. Rubinstein, C.V. Starr Working Paper, December 1982.

"Supervision and Social Welfare: An Expository Example," C.V. Starr Center Working Paper, January 1982.

"Should We Take Rights Seriously: Economic Analysis of the Family Education Rights Act," with M. Manove, November 1977.

"An Echo or a Choice: Product Variety Under Monopolistic Competition," with A. Weiss; presented at the Bell Laboratories Conference on Market Structures, February 1977.

#### **GRANTS RECEIVED**

Regulation and Policy Analysis Program, National Science Foundation, Collaborative Research on Antitrust Policy, Principal Investigator, July 15, 1985 - December 31, 1986.

Regulation of Economic Activity Program, National Science Foundation, Microeconomic Analysis of Antitrust Policy, Principal Investigator, April 1, 1983 - March 31, 1984.

Economics Division of the National Science Foundation, "Political Economy of Taxation," Principal Investigator, Summer 1982.

Sloan Workshop in Applied Microeconomics (coordinator), with W.J. Baumol (Principal Coordinator), September 1977 - August 1982.

Economics Division of the National Science Foundation, "Collaborative Research on the Theory of Optimal Taxation and Tax Reform," July 1979 to September 1980, with E.S. Phelps.

Division of Science Information of the National Science Foundation for Research on "Scale Economies and Public Goods Properties of Information," W.J. Baumol, Y.M. Braunstein, M.I. Nadiri, Fall 1974 to Fall 1977.

National Science Foundation Institutional Grant to New York University for Research on Taxation and Distribution of Income, Summer 1974.



## Appendix II

### Digital Audio Transmission Agreements

Licensor	Licensee	Effective Date
EMI	Guvera	09/18/09
EMI	MOG	08/14/09
EMI	Rdio	05/13/10
EMI	Rhapsody	04/01/10
SONY	Dada Entertainment	06/24/09
SONY	Spotify	01/19/11
UMG	Alltel	11/20/06
UMG	Boost (Nextel)	12/15/05
UMG	Claro	08/01/10
UMG	ClearSky	08/11/06
UMG	Cricket Communications	01/21/09
UMG	Gbox (fka Navio)	04/30/07
UMG	MCNE	02/01/08
UMG	MOG	10/12/09
UMG	mSpot	03/27/08
UMG	Musicane	01/10/08
UMG	Passionato	12/01/09
UMG	Rdio	10/27/10
UMG	Rdio	05/20/10
UMG	RealNetworks	11/18/10
UMG	Rhapsody	06/16/08
UMG	Skyrocket	08/31/11
WMG	7Digital	03/01/08
WMG	9 Squared	11/15/05
WMG	9 Squared	11/15/05
WMG	Alltel	01/10/07
WMG	Apple	11/25/02
WMG	AT&T	04/28/10
WMG	AT&T	03/05/10
WMG	Cricket Communications	10/29/08
WMG	LiveWire Mobile	07/01/11
WMG	Microsoft	04/28/08
WMG	Mobile Streams	08/01/09
WMG	MOG	09/30/09
WMG	MyPlay Direct	03/24/10
WMG	Myxer	02/03/10
WMG	Myxer	02/03/10
WMG	Rdio	05/01/10
WMG	Rdio	03/15/10

WMG	Sprint Spectrum	10/03/05
WMG	Sprint Spectrum	01/11/05
WMG	Sprint Spectrum	12/04/03
WMG	T-Mobile	11/25/03
WMG	Verizon Wireless	10/25/05
WMG	Verizon Wireless	10/21/04
WMG	Virgin Mobile	05/21/10

**Before the  
UNITED STATES COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

In the Matter of:

Determination of Rates and Terms for  
Preexisting Subscription Services and  
Satellite Digital Audio Radio Services

Docket No. 2011-1  
CRB PSS/Satellite II

**TESTIMONY OF**

**THOMAS Z. LYS**

**Eric L. Kohler Chair in Accounting and Professor of Accounting and Information  
Management, Kellogg School of Management, Northwestern University**

**Public Version**

**Witness for SoundExchange, Inc.**

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## I. INTRODUCTION

### A. Qualifications

1. My name is Thomas Z. Lys. I am the Eric L. Kohler Chair in Accounting and Professor of Accounting and Information Management at the Kellogg School of Management, Northwestern University. Kellogg is one of the leading business schools in the world.
2. I have been a faculty member at Kellogg since 1981. In addition, I have held academic positions at the Graduate School of Business at the University of Chicago (1986-87) and the Graduate School of Business at Stanford University (1997).
3. I have a Ph.D. in accounting and finance from the University of Rochester (1982), an M.S. in accounting, also from the University of Rochester (1980), and a B.S. in Economics from the University of Berne Switzerland (1976).
4. My research investigates the economic consequences of alternate financial reporting standards and financial decisions, such as changes in capital structure, changes in the money supply, and corporate disclosures. Other topics of interest include valuation, risk arbitrage, labor participation in corporate decisions, auditor liability, and financial analysts' earnings forecasts. My most recent work integrates the rational models of decision-making in economics, accounting and finance with the descriptive models of behavioral decision theory to predict the actions of various financial decision-makers.
5. My research has been published in prominent academic journals, including the *Journal of Accounting and Economics*, *Journal of Financial Economics*, the *Journal of Monetary Economics*, the *Journal of Business*, *The Accounting Review*, and the *Journal of Accounting Research*.
6. Since 1988, I have served in various editorial capacities for the *Journal of Accounting and Economics* (a leading academic journal in financial economics), serving as one of its editors for eleven years. I have been a member of the American Accounting Association for the last 25 years.
7. At Kellogg, I teach courses in financial reporting, security analysis, and mergers and acquisitions in the regular MBA program, in Kellogg's Executive MBA program, and in Kellogg's International Executive MBA programs which are taught in Europe and Asia. In the latter, I also teach a course in behavioral finance. Finally, I also teach Ph.D. courses in security market research and the economic consequences of financial disclosure decisions.

8. I also teach in numerous non-degree executive programs at Kellogg. In addition, I am the director of Kellogg's program "Corporate Governance: Effectiveness and Accountability in the Boardroom."
9. At Kellogg, I was awarded the Outstanding Professor of the Year Award for the Executive Masters' Program in 1996, 1997, 1998, 2000, 2002 and 2009, and the Sidney J. Levy Teaching Award in the regular MBA program in 1998-99.
10. In addition to my academic work, I have consulted for a number of leading private and public companies, including Cox Communications, Ciba Specialty Chemicals, General Electric, IBM, USX, Eastman Chemical, and Guidant Corporation.
11. My curriculum vitae is attached as Appendix A to this report, including a list of prior testimony.

**B. Statement of the Assignment**

12. I have been retained by counsel for SoundExchange as an expert witness in connection with the above-referenced matter.<sup>1</sup>
13. I have been asked to evaluate whether the royalty rate schedule of 12 to 20 percent of revenues proposed by SoundExchange to be paid by Sirius XM for the period 2013 - 2017 would be disruptive to "the structure of the industries involved and on generally prevailing industry practices."<sup>2</sup> The industries I have considered are the businesses of satellite-radio transmission of music and other programming and the recording industry more generally.<sup>3</sup> In particular, I have focused on Sirius XM Radio Inc. ("Sirius XM"), which is the only provider of satellite digital audio radio services ("SDARS").
14. Discovery in this matter has not yet begun, and as additional evidence becomes available, I reserve the right to amend my testimony with new information to add to or modify my analysis and the resulting conclusions.

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<sup>1</sup> Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, Docket No. 2011-1 CRB.

<sup>2</sup> 17 U.S.C. § 801(b)(1)(D).

<sup>3</sup> I have not been asked to assess the royalty rates for any other services.

**C. Summary of Conclusions**

15. Based on my review of the materials relied upon and the analyses I have performed, as well as my skills, knowledge, experience, education, and training, I conclude that:

- The proposed royalty rate schedule of 12 percent for 2013, 14 percent for 2014, 16 percent for 2015, 18 percent for 2016, and 20 percent for 2017 applied to Sirius XM's revenue would not be disruptive to Sirius XM's business. Sirius XM has achieved positive and growing financial metrics in 2010 and 2011, and this financial performance is projected to continue to improve, even after considering the effect of the proposed royalty rate schedule.
- In fact, the proposed royalty rate would have to be substantially greater (more than 31 percent starting in 2013 and more than 37 percent starting by 2017) before Sirius XM would experience negative EBITDA or negative free cash flows.
- Moreover, the proposed rate changes are likely to have a lower impact on Sirius XM's financial performance for two reasons. First, they do not take into account the offsetting revenues that Sirius XM likely would be able to achieve by passing on all or part of the increased royalty rate to its subscribers (without a substantial decline in subscribership). If Sirius XM were to increase the U.S. Music Royalty Fee it charges its subscribers, then Sirius XM's financial performance would be even more positive than I have calculated. Second, my analysis assumes that Sirius XM would pay the proposed royalty rates based on 100 percent of its revenue. However, I understand that, in practice, Sirius XM pays royalties based on substantially less than all of its revenue. When calculated using the percentage of revenue that Sirius XM has reported to SoundExchange in the recent past, the impact of the proposed royalty rates on Sirius XM would be even less.

**D. Organization of this Report**

16. In Section II, I present some relevant background facts I consider in my analysis. In Section III, I discuss Sirius XM's financial performance. In Section IV, I discuss my analysis of SoundExchange's proposed royalty rate schedule and its impact on Sirius XM's expected financial performance.

## II. BACKGROUND

### A. The Parties

#### 1. *SoundExchange*

17. SoundExchange is a non-profit organization that collects and distributes statutory royalties for the public performance of sound recordings on behalf of sound recording copyright owners and recording artists. SoundExchange previously has been designated by the Copyright Royalty Judges as the sole administrator of statutory licenses under Sections 112 and 114 of the Copyright Act.<sup>4</sup>
18. Services that publicly perform digital sound recordings pursuant to a statutory license include satellite radio, Internet radio, and cable TV music channels.

#### 2. *Sirius XM*

19. Sirius XM is the result of a July 2008 merger between Sirius Satellite Radio Inc. (“Sirius Radio”) and XM Satellite Radio Holdings Inc.<sup>5</sup> Sirius Radio was originally incorporated in 1990 as Satellite CD Radio, Inc.<sup>6</sup> XM Satellite Radio Inc. (“XM Radio”) was incorporated in 1992, and XM Satellite Radio Holdings was created as a holding company for XM Radio in 1997.<sup>7</sup> XM Radio launched its broadcasting service on November 12, 2001,<sup>8</sup> and Sirius Radio launched its broadcasting service in February 2002.<sup>9</sup>
20. In February 2007, Sirius Radio and XM Satellite Radio Holdings agreed to a merger of equals, and the Department of Justice ceased investigating the proposed merger in March, 2008.<sup>10</sup> The merger was completed on July 29, 2008 (“the merger”).<sup>11</sup>

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<sup>4</sup> For more information, see “Homepage,” SoundExchange, available at <http://www.soundexchange.com/>, accessed November 7, 2011.

<sup>5</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 2.

<sup>6</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 2.

<sup>7</sup> XM Satellite Radio Holdings Inc., Form 10-K for the fiscal year ended December 31, 2006, p. F-12.

<sup>8</sup> XM Satellite Radio Holdings Inc., Form 10-K for the fiscal year ended December 31, 2006, p. F-12.

<sup>9</sup> Sirius Satellite Radio Inc., Form 10-K for the fiscal year ended December 31, 2006, p. F-16.

<sup>10</sup> See Sarah McBride, Dennis K. Berman, and Amy Schatz, “Sirius and XM Agree to Merge, Despite Hurdles—For Regulators, Deal Pits Competition Concerns Against New Technology,” *The Wall Street Journal*, February 20, 2007. See also, “Evidence Does Not Establish that Combination of Satellite Radio Providers Would Substantially Reduce Competition,” Department of Justice, March 24, 2008.



21. Through proprietary satellite radio systems, Sirius XM broadcasts satellite radio on a subscription fee basis primarily to automobile-based radio receivers. Sirius XM has stated that “[a]s of December 31, 2010, satellite radios were available as a factory or dealer-installed option in substantially all vehicle makes sold in the United States.”<sup>12</sup> Subscribers may also purchase satellite radio units in retail stores or through Sirius XM’s website, which Sirius XM markets for use in homes, cars, businesses, boats, and as portable devices.<sup>13</sup>
22. Sirius XM offers over one hundred and forty channels of satellite radio, including seventy-one channels of commercial-free music.<sup>14</sup> In addition to music, Sirius XM airs content consisting of radio personalities, news, talk, entertainment, and sports programming.<sup>15</sup> As of September 30, 2011, Sirius XM had 21.3 million subscribers.<sup>16</sup> Sirius XM offers different packages of channels that range in price from \$6.99 to \$19.99 per month.<sup>17</sup>
23. Sirius XM reports that it owns nine orbiting satellites and a network of terrestrial repeaters designed to complement satellite service in areas prone to signal disruption.<sup>18</sup>

**B. Competition**

24. In the company’s financial statements, Sirius XM states that it competes against a variety of

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<sup>11</sup> “Sirius and XM Complete Merger,” PR Newswire, July 29, 2008, p. 1.

<sup>12</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 3.

<sup>13</sup> See “What is SiriusXM?” Sirius XM, available at <http://www.siriusxm.com/whatisiriusxm>, accessed November 27, 2011. See also, Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 4.

<sup>14</sup> “What is Sirius XM?” Sirius XM, available at <http://www.siriusxm.com/whatisiriusxm>, accessed on November 27, 2011.

<sup>15</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 2-3.

<sup>16</sup> Together with Canadian Broadcasting Corporation and Slight Communications Inc., Sirius XM jointly owns SIRIUS Canada. Sirius XM also has an ownership interest in XM Canada. Although both Canadian entities offer similar services to Sirius XM, subscribers to these entities are not reported in Sirius XM subscriber counts. See Sirius XM Radio Inc. Form 10-K for the fiscal year ended December 31, 2010, p. 6. Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2011, p. 24.

<sup>17</sup> See “SiriusXM All-In-One Packages,” Sirius XM, available at <http://www.siriusxm.com/subscriptions/siriusxmallinonechoices>, accessed November 9, 2011. See also, “Sirius A La Carte,” Sirius XM, available at <http://www.siriusxm.com/subscriptions/packages/sirius/alacarte>, accessed November 28, 2011. See also, Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2011, p. 24.

<sup>18</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 4-5.

other radio and audio services, including traditional AM/FM (“terrestrial”) radio, HD radio, and internet radio.<sup>19</sup> Wall Street analysts who cover Sirius XM also discuss satellite radio’s competitors.<sup>20</sup> Sirius XM also states that it competes to some extent with other distribution channels for listening to music in cars, including portable listening devices such as smartphones and iPods.<sup>21</sup>

25. Sirius XM’s management regularly comments on the competitive environment in earnings calls and in press releases. Many of these statements reflect management’s optimism with respect to competitive pressures. For example, in March 2011 Sirius XM’s Chief Financial Officer David Frear stated:

You know that satellite radio has had a great run, that we have faced intense competition in the 9 years since we launched the business. iPod was launched at the same time we were. Broadband has blown through the substantial majority of TV households in the country bringing the plethora of internet radio options to the public. Smartphones’ [sic] have taken the world by storm in the last couple of years. There are now over 60 million, I think, in the US alone. And those, of course, are just incredibly powerful mobile computing devices that allow people to get virtually any form of entertainment they want anyplace. So all this should sound like terrible news for SIRIUS XM Radio, except that through all this competition [we’ve] managed to grow from zero to over 20 million subscribers.... [W]e’ve done pretty well competing against a free, ad-based, curated content music service, which is what terrestrial radio is.<sup>22</sup>

26. In Sirius XM’s earnings call for the third quarter in 2010, Mel Karmazin, CEO of Sirius XM, similarly expressed confidence that over the years, compared to terrestrial radio, Sirius XM has “provided a superior product that consumers were willing to pay for.”<sup>23</sup>
27. In September 2011, Mr. Karmazin also expressed confidence in continued consumer demand for satellite radio:

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<sup>19</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 8-9.

<sup>20</sup> For example, Morgan Stanley mentions internet and terrestrial radio. See Swinburne, Benjamin, and Ryan Fiftal, Morgan Stanley, “Sirius XM Radio Inc.: Drive Time,” May 23, 2011, p. 8. See also Martin Pyykkonen, Wedge Partners, “SiriusXM Radio (SIRI): EBITDA Margin Expands to 26% in Q3, With Long Term View Still > 40% EBITDA Margin,” November 2, 2011, p.2

<sup>21</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 8-9.

<sup>22</sup> “SIRI – Sirius XM Radio at Credit Suisse Group Convergence Conference,” Thomson StreetEvents, March 8, 2011, pp.1 and 8-9.

<sup>23</sup> “Sirius XM Radio Inc., Q3 2010 Earnings Call,” Capital IQ, November 4, 2010, p. 4.

I mean, if you think about the way people get audio entertainment, whether it be in terrestrial radio, whether it be in Internet radio, for the most part it's free and yet today, in spite of having all this content available for free, over 21 million people decided that they want to continue to have satellite radio.<sup>24</sup>

28. Mr. Frear has also reiterated that Sirius XM's ability to retain subscribers "compares very favorably to a lot of other media platforms."<sup>25</sup> Additionally, Mr. Karmazin has explained that subscribers who choose to deactivate do so for reasons unrelated to the service itself. He stated:

We get a report every single day on the number of people who are de-acting and why they are de-acting and a lot of the de-acts that we're getting are unrelated to us. It's their credit card, the economy that they're experiencing with. And we believe that the research that we do, customers love our service. There's no waning of that in spite of increased competition.<sup>26</sup>

29. Ultimately, though Sirius XM states that it faces competition from terrestrial, HD, and internet radio, management believes that this competition will not prevent the company from continuing to grow.<sup>27</sup> As recently as a few weeks ago, Mr. Karmazin announced, "SiriusXM is not slowing down, and we intend to accelerate our growth next year. Our company is performing extremely well. We have a unique product that consumers demand, and we have a business model that continues to demonstrate positive economic leverage. The best is yet to come."<sup>28</sup>

### III. FINANCIAL PERFORMANCE OF SIRIUS XM

30. In this section, I present information related to the historical and forecasted performance of Sirius XM. These facts will be incorporated into the analysis that I introduce in Section IV.
31. Overall, Sirius XM's financial stability and expected future financial performance have

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<sup>24</sup> "SIRI – Sirius XM Radio Inc at Bank of America Merrill Lynch Media, Communications & Entertainment Conference," Thomson StreetEvents, September 14, 2011, p. 9.

<sup>25</sup> Sirius XM Radio at Bank of America Merrill Lynch Credit Conference, November 18, 2010, p. 3.

<sup>26</sup> "SIRI – Sirius XM Radio Inc at Bank of America Merrill Lynch Media, Communications & Entertainment Conference," Thomson StreetEvents, September 14, 2011, p. 9.

<sup>27</sup> See, for example, "SIRI - Sirius XM Radio at Deutsche Bank Securities Inc. Media and Telecom Conference," Thomson StreetEvents, March 9, 2011, p. 1; and "Sirius XM Radio Inc.. Q2 2011 Earnings Call," Capital IQ, August 2, 2011, p. 2.

<sup>28</sup> "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 5.

improved greatly since the merger between Sirius Radio and XM Satellite Radio Holdings Inc. in mid-2008. As I discuss in more detail below, since the merger, Sirius XM has experienced steady growth in both the number of subscribers and subscriber revenues while at the same time experiencing cost reductions. As a result, the company has achieved sustainable and growing profitability. Further, in contrast to 2009, when the company restructured its debt, Sirius XM's credit ratings and the underlying financial metrics related to its debt have improved substantially.

**A. Revenue**

32. In its 2010 filings with the Securities and Exchange Commission (SEC), Sirius XM reported total revenue of approximately \$2.8 billion, comprising four categories: subscriber revenue, advertising revenue, equipment revenue, and other revenue.<sup>29</sup> Subscriber revenue is by far the largest category; it accounted for about 86 percent of Sirius XM's total revenue in 2010, and accounted for more than 90 percent in earlier periods.<sup>30</sup>
33. Subscriber revenue itself consists of subscription fees, activation fees and other fees, minus rebates.<sup>31</sup> From 2008 to 2011, subscriber revenue has increased each year. See Attachment 1. Sirius XM's senior management expects revenue to continue to grow in coming years. In November 2011, CEO Mel Karmazin stated:
- Again, we believe we have many, many years of subscriber growth ahead of us... Growing subscribers is our primary means of growing revenue. But changes to our pricing and more effective bundling of higher-tiered packages will also boost revenue over the next few years.<sup>32</sup>
34. All ten of the analyst reports that Thomson One compiles in its currently reported "Detailed Estimates" project that Sirius XM's revenue will increase from 2011 to 2012 and in each

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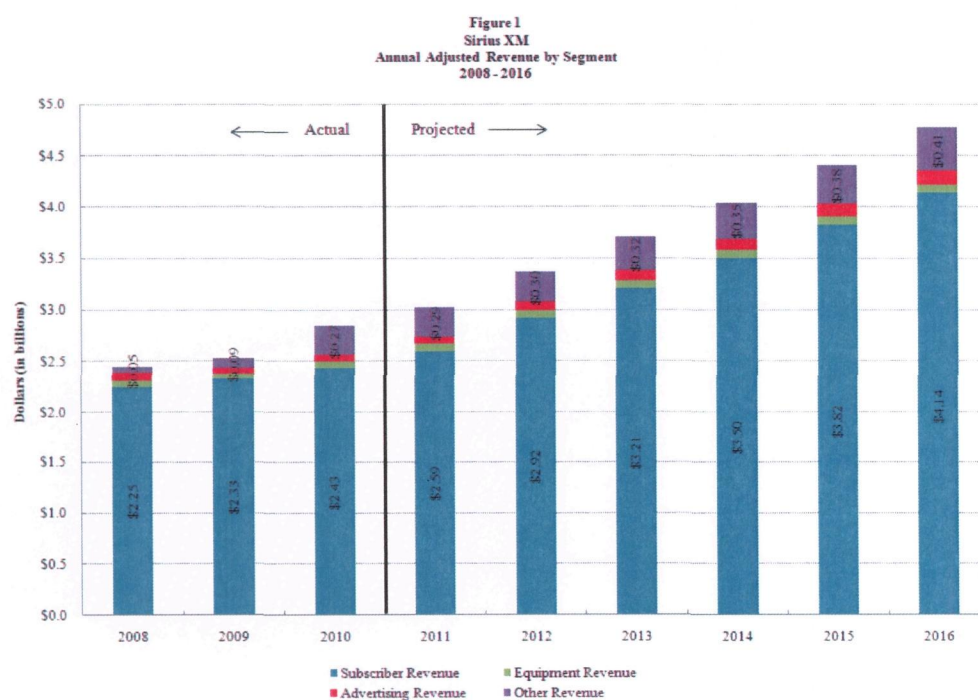
<sup>29</sup> Advertising revenue (approximately 2.3 percent of total revenue) comprises advertising sales on non-music channels, net of agency fees. Equipment revenue (approximately 2.5 percent of total revenue) includes revenue and royalties from the sale of satellite radios, components and accessories. Other revenue (approximately 9.5 percent of total revenue) comprises the U.S. Music Royalty Fee, revenue from affiliates, content licensing fees and syndication fees. See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 26-28, and 44-45.

<sup>30</sup> Before Sirius XM introduced the U.S. Music Royalty Fee on July 29, 2009, subscriber revenue constituted more than 90 percent of total revenue. See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 8 and 26.

<sup>31</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 27, 44-45, and F-20.

<sup>32</sup> "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 4.

subsequent year for which that analyst reports a projection.<sup>33</sup> As shown in Attachment 2, the seven analysts that provide forecasts through 2015 all project that Sirius XM’s 2015 revenue will exceed \$4 billion, with an average projection of more than \$4.4 billion. As I discuss later in this report, the forecasts provided by Morgan Stanley fall very close to the average, or consensus, of analyst forecasts for several of Sirius XM’s financial metrics. In Figure 1 below (see also Attachment 3), I use Morgan Stanley’s forecasts of future revenues to illustrate the expected growth in Sirius XM’s total revenues. None of my conclusions in this report, however, are dependent on my use of the specific forecasts issued by Morgan Stanley.



35. As noted above, subscriber revenue accounts for about 86 percent of Sirius XM’s total

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*Thomson ONE Investment Analyst* is a premier data portal that is heavily used by market participants and researchers alike. My report incorporates forecasts from every analyst compiled in Thomson’s “Detail Estimates” function, including (as noted in Attachment 2) Lazard Capital Markets, Barrington Research, and Gabelli & Company. Thomson’s “Detail Estimates” function compiles analyst projections for many metrics used in the finance industry.

revenues. In turn, subscription fees constitute 99 percent of subscriber revenue.<sup>34</sup> I next discuss in detail the two drivers of subscription revenue: the number of subscribers and the prices they are charged.

1. *Subscribers*

a) *Historical Subscriber Numbers*

36. At the end of Q3 2011, Sirius XM reported approximately 21.3 million subscribers,<sup>35</sup> representing an increase of 2.3 million net subscribers, or 12.3 percent, compared to the end of Q4 2008. See Attachment 4.
37. Sirius XM obtains subscriptions primarily through automakers (referred to as OEMs or Original Equipment Manufacturers), retailers, and certain rental car companies. In late 2008, subscriptions obtained through OEMs and retailers constituted 52 percent and 48 percent of total subscribers, respectively. Since then, the share of subscriptions obtained through OEMs has steadily increased, reaching approximately 69 percent of total subscribers at the end of Q3 2011.<sup>36</sup>
38. Sirius XM explains that OEM installations depend partially on OEM penetration rates—the percentage of new vehicles manufactured for sale in the U.S. that have a factory-installed satellite radio in the dashboard.<sup>37</sup> During Q2 2011, Sirius XM reported an OEM penetration rate of 65 percent.<sup>38</sup> Sirius XM has agreements with every major automaker to offer satellite radios in their vehicles. Radios are installed at factories or by dealers, depending on the agreement.<sup>39</sup>

b) *Forecasted Subscriber Numbers*

39. In August 2011, Mr. Frear stated, “[w]e’ve increased our guidance for net additions [in

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<sup>34</sup> The other components are activation fees and rebates. See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. F-20.

<sup>35</sup> Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2011, p. 24.

<sup>36</sup> Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, “Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged,” November 3, 2011, p. 13.

<sup>37</sup> See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 30. See also, “Sirius XM Radio, Inc., Q2 2011 Earnings Call,” Capital IQ, August 2, 2011, p. 2.

<sup>38</sup> Sirius XM Radio Inc., Q2 2011 Earnings Call,” Capital IQ, August 2, 2011, p. 2.

<sup>39</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 2.

2012] to 1.6 million. This 14% increase in the face of a very challenging economic environment is testimony to our customers' passion for our service and the strength and stability of our subscriber-based business model.”<sup>40</sup> Mr. Frear also noted, “[w]e will continue to grow subscribers as the OEMs are all forecasting higher auto sales in 2012.”<sup>41,42</sup>

40. Sirius XM is also focused on the significant growth opportunities offered in the used car market.<sup>43</sup> Sirius XM has been working with OEMs to install satellite radios in certified pre-owned cars, enabling Sirius XM to further grow subscribers and increase its penetration rate in used cars.<sup>44</sup> In August 2011, Mr. Karmazin emphasized the importance of these initiatives: “I’ll repeat: the previously owned market will be a very significant catalyst for our growth in the years ahead.”<sup>45</sup> Analysts at Morgan Stanley agree, and “continue to expect incremental subscriber growth from the used car market.”<sup>46</sup>
41. Wall Street analysts share management’s expectations that subscriber numbers will continue to increase in the coming years.<sup>47</sup> By 2015, Morgan Stanley projects total subscribers of about 27.7 million, representing an increase of 7.5 million, or 37.3 percent, from 2010’s year-end total of 20.2 million. Figure 2 below (see also Attachment 5) illustrates this growth trend using Morgan Stanley’s estimates of Sirius XM’s future

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<sup>40</sup> Sirius XM Radio Inc., Q2 2011 Earnings Call,” Capital IQ, August 2, 2011, p. 6.

<sup>41</sup> Sirius XM Radio Inc., Q2 2011 Earnings Call,” Capital IQ, August 2, 2011, p. 5.

<sup>42</sup> Academic research shows that management forecasts are the most impactful source of information for security prices. See Beyer, Cohen, Lys, and Walther, 2010, pp. 305, 307 and 335.

<sup>43</sup> See, for example, “Sirius XM Radio Inc., Q3 2011 Earnings Call,” Capital IQ November 1, 2011, p. 3; Sirius XM Radio Inc. at Bank of America Merrill Lynch Media, Communications and Entertainment Conference, September 14, 2011, p. 4; “Sirius XM Radio Inc., Q4 2010 Earnings Call,” Capital IQ, February 15, 2011, p. 3; and Sirius XM Radio Inc. at Lazard Capital Markets Technology and Media Conference, March 15, 2011, p. 5.

<sup>44</sup> Sirius XM Radio Inc. at Lazard Capital Markets Technology and Media Conference, March 15, 2011, p. 5.

<sup>45</sup> Sirius XM Radio Inc., Q2 2011 Earnings Call,” Capital IQ, August 2, 2011, p. 2.

<sup>46</sup> Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, “Sirius XM Radio Inc. – Drive Time,” May 23, 2011, p. 5.

<sup>47</sup> See, for example, Harrigan, Matthew, Wunderlich Securities, “Sirius XM Radio Inc.: More Good Than Bad Radio Vibrations; Lynx and CPO Vehicle Market Receptivity,” November 2, 2011, p. 11; and Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, “Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged,” November 3, 2011, p. 12. Both of these analyst reports project an annual net increase in subscribers of at least 4% for each year (through FY 2015 in the Wunderlich Securities report and through FY 2016 in the Morgan Stanley report).

subscriber base.<sup>48</sup>



2. *Products and Pricing*

42. In this section, I show that prices and fees for satellite radio subscriptions have increased over time without damaging the subscriber base.

a) *Historical Products and Pricing*

43. In late 2001, when XM completed the national rollout of its services,<sup>49</sup> XM priced its basic subscription for “as many as 100 different digital broadcast channels” at \$9.95 per month.<sup>50</sup> Sirius launched its satellite radio service in February 2002<sup>51</sup> and charged \$12.95 per month

<sup>48</sup> Morgan Stanley provides subscriber estimates through 2016, which is a longer horizon than most other analyst forecasts I have seen. However, for 2012 – 2015, Morgan Stanley’s subscriber estimates are at or below the average of subscriber forecasts provided by other investment analysts.

<sup>49</sup> XM Satellite Radio Inc., Form 10-K for the fiscal year ended December 31, 2006, p. F-12.

<sup>50</sup> Brannon, Keith, “Satellite radio beaming in music beyond AM/FM dial,” New Orleans CityBusiness, November 12, 2001.

<sup>51</sup> Sirius Satellite Radio Inc., Form 10-K for the fiscal year ended December 31, 2006, p. F-16.



for a basic subscription.<sup>52</sup> By 2004, XM and Sirius had each increased their offerings from 100 channels to approximately 120 channels and (still) charged \$9.95 and \$12.95, respectively.<sup>53</sup> In April 2005, however, XM increased its basic subscription price to \$12.95, matching Sirius's then current pricing.<sup>54</sup>

44. After the merger in July 2008,<sup>55</sup> Sirius XM began to offer additional subscription packages that provided access to different combinations of existing channels for varying prices.<sup>56</sup> Sirius XM stated that there were "approximately 135 channels on each of the SIRIUS platform and the XM platform: 117 channels are available to subscribers on both platforms."<sup>57</sup>
45. In 2009, Sirius XM increased the price of the discounted "second radio" subscription plan to \$8.99 (from \$6.99) per month.<sup>58</sup> As of November 2011, the number of channels available under a variety of subscription types ranged from 50 to 300.<sup>59</sup>
46. In a conference call in March 2011, Sirius XM's CFO David Frear noted that very few subscribers choose a lower-priced, a la carte service<sup>60</sup> offering 50 standard channels: "[o]ut of [our] 20 million subscribers, there are less than 30,000 that have chosen a la carte product."<sup>61</sup> According to Frear, customers are "used to a mix of music, talk, news and sports."<sup>62</sup>

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<sup>52</sup> "PBR Notes," Public Broadcasting Report, February 22, 2002, p. 1.

<sup>53</sup> The Journal News, "Satellite Radio is Getting SIRIUS," November 29, 2004, p.1.

<sup>54</sup> XM Satellite Radio Inc., Form 10-K for the fiscal year ended December 31, 2006, p. 42.

<sup>55</sup> "Sirius and XM Complete Merger," PR Newswire, July 29, 2008, p. 1.

<sup>56</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2008, pp. 5 and 10-11.

<sup>57</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2008, p. 5.

<sup>58</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2009, p. 2.

<sup>59</sup> "Channel Lineup," Sirius XM, available at <http://www.siriusxm.com/channellineup>, accessed November 27, 2011.

<sup>60</sup> "Sirius A La Carte," Sirius XM, available at <http://www.siriusxm.com/subscriptions/packages/sirius/alacarte>, accessed November 28, 2011.

<sup>61</sup> SIRI - Sirius XM Radio at Deutsche Bank Securities Inc. Media and Telecom Conference," Thomson StreetEvents, March 9, 2011, p. 3.

<sup>62</sup> "SIRI - Sirius XM Radio at Deutsche Bank Securities Inc. Media and Telecom Conference," Thomson StreetEvents, March 9, 2011, p. 4.

b) *The U.S. Music Royalty Fee*

47. As a condition of the merger, Sirius XM was not permitted to “raise the retail price for, or reduce the number of channels in, our basic \$12.95 per month subscription package, [the] a la carte programming packages or certain other programming packages” until July 28, 2011.<sup>63</sup> These price caps were extended through December 31, 2011 as part of a settlement that Sirius XM reached in a class action lawsuit filed against it, *Carl Blessing et al. v. Sirius XM Radio Inc.*<sup>64</sup>
48. On July 29, 2009, Sirius XM introduced U.S. Music Royalty Fees of \$1.98 for basic subscriptions (increasing the total price from \$12.95 to \$14.93 per month) and \$0.97 for “second radio” discount plans (raising the total price from \$8.99 to \$9.96 per month).<sup>65</sup> In December 2010, Sirius XM reduced the U.S. Music Royalty Fee that it charges subscribers from \$1.98 to \$1.40 per month on the base \$12.95 subscription.<sup>66</sup> Sirius XM states the U.S. Music Royalty Fee “is used by Sirius XM to fund its existing and anticipated royalty payments to the music industry, which includes writers and artists.”<sup>67</sup> Sirius XM also notes that “Subscription packages, such as our ‘News, Sports and Talk’ package, that contain little music are not subject to the U.S. Music Royalty Fee.”<sup>68</sup>

c) *Historic Effects of Price Increases*

49. In May 2001, when Sirius Radio increased its subscription fee from \$9.95 per month to \$12.95 per month, Sirius’s share price increased almost twenty percent.<sup>69</sup> This positive market reaction occurred despite the fact that its only direct competitor at the time, XM Radio, had consistently said that its own upcoming satellite radio service would cost \$9.95

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<sup>63</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 7-8.

<sup>64</sup> Sirius XM Radio Inc., Form 8-K, May 16, 2011, p. 2.

<sup>65</sup> See “U.S. Music Royalty Fee,” Sirius XM, available at <http://www.siriusxm.com/usmusicroyalty>, accessed October 27, 2011. See also Sirius XM, Form 10-K for the fiscal year ended December 31, 2010, p. 8.

<sup>66</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 8.

<sup>67</sup> “U.S. Music Royalty Fee,” available at <http://www.siriusxm.com/usmusicroyalty>, accessed October 27, 2011 and November 10, 2011.

<sup>68</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2009, p. 7.

<sup>69</sup> Irwin, Neil. “XM Competitor Boosts Its Prices; Analysts Predict Industry-Wide Hikes,” *The Washington Post*, May 17, 2001, p. 1.

per month.<sup>70, 71</sup> In 2005, XM Radio raised its subscription price from \$9.95 to \$12.95 to match Sirius Radio's pricing. Concurrently, its share price increased thirteen percent.<sup>72</sup>

50. Sirius XM's imposition of the U.S. Music Royalty Fee appears to have had no effect on subscriber growth rates. In an August 2011 conference call, CEO Mel Karmazin said that the U.S. Music Royalty Fee was effectively "a double-digit price increase affecting the consumer and our churn remained relatively flat."<sup>73</sup>

d) *Forecasted Pricing*

51. In September 2011, Sirius XM reported that it planned to increase the base price of both Sirius and XM "Select" plans from \$12.95 to \$14.49 per month in early 2012.<sup>74</sup> Sirius XM's stock price increased 6.8 percent following the announcement.<sup>75, 76</sup>
52. During an earnings call in November 2011, CEO Mel Karmazin stated that "\$1.50 a month...would not really materially change DX<sup>77</sup> for us...[s]o far, based on the noise that's in the market, or I should say the lack of noise that's in the market...the price increase is not in any way, shape or form egregious."<sup>78</sup> CFO David Frear noted that "[g]iven the

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<sup>70</sup> Irwin, Neil. "XM Competitor Boosts Its Prices; Analysts Predict Industry-Wide Hikes," The Washington Post, May 17, 2001, p. 1.

<sup>71</sup> On the date of this announcement, February 28, 2005, the NASDAQ composite index (CCMP) declined by 0.66 percent, and the NASDAQ Telecommunications Index (CUTL) increased by 0.18 percent. Sirius XM Radio Inc. (SIRI) is traded on NASDAQ. (Bloomberg, L.P., CCMP NASDAQ Composite Index – Historical Prices, accessed November 27, 2011 and Bloomberg, L.P., CUTL NASDAQ Telecomm Index – Historical Prices, accessed November 27, 2011.)

<sup>72</sup> Franklin Paul, "Update 2-XM Satellite Radio Lifts Monthly Fee by 30 pct.," Reuters News, Feb. 28, 2005, p. 1.

<sup>73</sup> "Q2 2011 Sirius XM Radio Inc Earnings Conference Call-Final," CQ Transcriptions, LLC, August 2, 2011, p. 8.

<sup>74</sup> Kell, John and Maxwell Murphy, "Update: Sirius XM Gives 2012 View, Plans Price Increases; Stock up," Dow Jones Newswires, September 14, 2011, p. 2.

<sup>75</sup> Kell, John and Maxwell Murphy, "Update: Sirius XM Gives 2012 View, Plans Price Increases; Stock up," Dow Jones Newswires, September 14, 2011, p. 1.

<sup>76</sup> On the date of this announcement, September 14, 2011, the NASDAQ composite index (CCMP) increased by 1.60 percent, and the NASDAQ Telecommunications Index (CUTL) increased by 1.11 percent. (Bloomberg, L.P., CCMP NASDAQ Composite Index – Historical Prices, accessed November 27, 2011 and Bloomberg, L.P., CUTL NASDAQ Telecomm Index – Historical Prices, accessed November 27, 2011.)

<sup>77</sup> DX is often used as an abbreviation of "Quantity Demanded."

<sup>78</sup> "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 7.

programming we are delivering and given how long we've left the price unchanged, [it] just makes a lot of sense to increase it in the future."<sup>79</sup> As early as May 23, 2011, analysts at Morgan Stanley expected a \$1 base rate increase in 2012.<sup>80</sup>

**B. Expenses**

*1. Historical Expenses*

53. In fiscal year 2010, Sirius XM's three largest categories of operating expenses were Revenue share and royalties, Subscriber acquisition costs, and Programming and content.<sup>81</sup> The sum of operating expenses that year totaled nearly \$2.4 billion compared to Total revenue of \$2.8 billion.<sup>82</sup> Attachment 6 illustrates Sirius XM's (adjusted) operating expenses over the past four years. This graph shows that total operating expenses have remained relatively constant from 2009 through 2011 despite the increase in revenues for the same time period.
54. Sirius XM defines its fixed costs as satellite and transmission, programming, sales and marketing, G&A, and engineering design and development.<sup>83</sup> In an earnings call for Q3 2011, Mr. Frear noted that Sirius XM had reduced fixed expenses by 31 percent since the merger while revenues had increased 25 percent over the same period. He stated:

We continue to manage fixed expenses, that's sales and marketing, satellite and transmission, research and development and G&A and programming, to be relatively flat despite significant growth in subscribers and revenues. Programming costs continues [sic] to decline as premerger contracts come up for their post-merger renewals in the 9 months ended September 2008. Just after the close of the merger, fixed expenses ran \$936 million for the combined company. In 2009, we cut them to \$658 million. We held them at that level in 2010 and reduced them further in 2011 to \$649 million. That's an aggregate reduction of 31% while revenues have increased 25% over the same period.<sup>84</sup>

55. Sirius XM management calculates contribution margin as revenue net of revenue share,

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<sup>79</sup> "Sirius XM Radio Inc., Q2 2011 Earnings Call," Capital IQ, August 2, 2011, p. 7.

<sup>80</sup> Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc. – Drive Time," May 23, 2011, p. 6. This report also projects that subscribers and revenues will increase in 2012.

<sup>81</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 50.

<sup>82</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 50.

<sup>83</sup> "Sirius XM Radio Inc., Q1 2010 Earnings Call," Capital IQ, May 4, 2010, p. 4.

<sup>84</sup> "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 5.

royalties, customer service, and building costs and cost of equipment.<sup>85</sup> This calculation implies that revenue share, royalties, customer service, and building costs and cost of equipment comprise Sirius XM's variable costs, i.e., the costs that are expected to increase more or less proportionately with increases in revenues. Over the last few years, Sirius XM has maintained a contribution margin of 70 percent or more.<sup>86, 87</sup> In a Q3 2011 earnings call, Mr. Frear stated that the contribution margin for the quarter was 71.4 percent.<sup>88</sup>

2. *Forecasted Expenses*

56. Analysts expect Sirius XM's operating expenses to continue to decrease as a percentage of revenue. One contributing factor is that as a result of the merger, Sirius XM's programming costs are declining. CEO Mel Karmazin stated in September 2011:

[T]he merger has enabled us to take a great deal of costs out of the Company... Specifically, in the programming area, that has been a very important part of where our focus was in driving down costs, while we are not in any way, shape, or form taking away from our innovation in the programming side... So our peers in the cable and satellite television area are seeing a phenomenon that's very different than ours. Their programming costs are in fact going up. It's going up as a higher percentage of their revenue. Ours, the programming costs are going down and that it's going to be a lower percentage of our revenue. And deals are continuing to come up.<sup>89</sup>

57. Additionally, at an investor conference in March 2011, Mr. Frear said that he expected the underlying cost of the radio module to decrease over the next seven to eight years. He stated:

We get smarter every year about how to build chips, how to build radios, driving costs down. Volume goes up and so the overhead factors get absorbed better. If we can get all the OEMs on a single technology platform, right? Right now

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<sup>85</sup> "Sirius XM Radio Inc., Q2 2011 Earnings Call," Capital IQ, August 2, 2011, p. 6.

<sup>86</sup> "[Contribution margin] has been very consistently right around 70% before the merger, a little bit less than 70% since the merger, a little bit more than 70% -- I think 70% is a good number to think about." Sirius XM at Bank of America Merrill Lynch Credit Conference, November 18, 2010, p. 4.

<sup>87</sup> "Sirius XM Radio Inc., Q3 2010 Earnings Call," Capital IQ, November 4, 2010, p. 5; "Sirius XM Radio Inc., Q4 2010 Earnings Call," February 15, 2011, p. 5; "Sirius XM Radio Inc., Q1 2011 Earnings Call," Capital IQ, May 3, 2011, p. 5; and "Sirius XM Radio Inc., Q2 2011 Earnings Call," Capital IQ, August 2, 2011, p. 6.

<sup>88</sup> "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 5.

<sup>89</sup> Sirius XM Radio Inc. at Bank of America Merrill Lynch Media, Communications and Entertainment Conference, September 14, 2011, p. 5.

they're split between two. There's the Sirius technology, the XM technology. If we can get them all onto one platform, then you've got additional volume on that platform and you can drive costs down further. So there's still -- as we look out and we plan this out over several years, I think for the next seven or eight years, that we'll drive down that the basic underlying cost of the radio module.<sup>90</sup>

58. Furthermore, Mr. Frear has said that he expects fixed costs to remain stable in absolute terms. At an investor conference in November 2010, Mr. Frear stated, "We don't believe that there is a whole lot of reasons [sic] for fixed costs to be scaling up from here."<sup>91</sup>
59. Among other metrics, analysts at Morgan Stanley have forecasted operating revenues and costs through 2015. As shown in Attachment 7, Morgan Stanley projects that Sirius XM's revenues will grow more quickly than Operating Expenses and Cost of Revenue, resulting in increasing Operating Income over the next four years. In August 2011, Mr. Karmazin stated, "We anticipate our revenue growth will accelerate. Our revenue will grow faster than our expenses, so there will be further margin expansion."<sup>92</sup>
60. Analysts at Morgan Stanley expect further declines in expenses due to synergies from the merger that are still materializing. The analysts stated:

While SIRI has realized significant synergies to date, we believe an incremental ~\$150M of further cost synergies have been "locked up" due to long-term contracts and should be realized over the next few years. In particular, we expect programming costs to decline ~\$20M this year and an additional ~\$25M annual savings to be realized through 2016 as long-term programming contracts are renegotiated. Furthermore, we expect over \$100M in annual cost savings to be realized as a large OEM revenue share deal is renegotiated at the end of 2013.<sup>93</sup>

### C. Free Cash Flow and EBITDA

61. Two important measures of financial performance are free cash flow and earnings before interest, taxes, depreciation, and amortization ("EBITDA"). Free cash flow is the measure of cash generated by a company that is not needed to fund the period's operations or to

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<sup>90</sup> "SIRI - Sirius XM Radio at Deutsche Bank Securities Inc. Media and Telecom Conference," Thomson StreetEvents, March 9, 2011, p. 9.

<sup>91</sup> Sirius Satellite Radio at Bank of America Merrill Lynch Credit Conference, November 18, 2010, p. 3.

<sup>92</sup> "Sirius XM Radio Inc., Q2 2011 Earnings Call," Capital IQ, August 2, 2011, p. 5.

<sup>93</sup> Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc. - Drive Time," May 23, 2011, p. 7.

reinvest in the firm's future operations.<sup>94</sup> In other words, the computation of free cash flow explicitly excludes the cash required to fund capital investments (e.g., facilities, satellites) that a company like Sirius XM must undertake to support its ongoing and expanded operations. Free cash flow is thus a measure of cash available to the company to deploy as it sees fit, including as payments to shareholders in the form of a dividend or stock repurchase, or to repay debt, without reducing investments in the business. As Sirius XM explains, free cash flow is a useful metric "to determine cash available for future subscriber acquisition and capital expenditures, to repurchase or retire debt, to acquire other companies and to evaluate our ability to return capital to stockholders."<sup>95</sup> Free cash flow is the primary measure used in (equity) valuation.

62. EBITDA roughly measures the cash profitability of a company's sales from an operating perspective. In deciding royalty rates for 2007 through 2012, the Copyright Royalty Board considered both EBITDA and free cash flow in assessing whether the proposed rates would be disruptive.<sup>96</sup>
63. Sirius XM's management also has emphasized free cash flow and EBITDA when discussing the health of the company. In a December 2009 conference call, CFO David Frear said that "at the end of the day, we're looking to drive EBITDA and free cash flow growth, which is ultimately what is going to drive value for shareholders."<sup>97</sup> CEO Mel Karmazin reiterated this view in a November 2011 earnings call: "[g]rowing EBITDA is really a precursor to driving free cash flow, which we believe is the primary driver of SiriusXM's value."<sup>98</sup> See Attachment 8 for projections of Sirius XM's EBITDA.
64. Mr. Karmazin has noted Sirius XM's progress with respect to both the EBITDA and free cash flow metrics. At \$197 million in Q3 2011, adjusted EBITDA was "up 16% year-over-year for the quarter."<sup>99</sup>

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<sup>94</sup> Brealey, Richard, Stewart Myers and Franklin Allen, *Principles of Corporate Finance*, 2006, p. 997.

<sup>95</sup> Sirius XM Radio Inc., Form 10-Q for the fiscal quarter ended September 30, 2011, p 32.

<sup>96</sup> SDARS I, p. 4097.

<sup>97</sup> "SIRI – Sirius Satellite Radio at UBS Media & Communications Conference," Thomson Street Events, December 8, 2009, p. 7.

<sup>98</sup> "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 3.

<sup>99</sup> "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 3.

65. Negative free cash flow indicates that a firm must rely on external sources of financing for its operations and/or investments, while positive free cash flow implies that a firm can finance its investments internally and then have funds “free” to distribute to investors. In 2008 Sirius XM had *negative* free cash flow of over \$550 million. In contrast, free cash flow was a *positive* \$185 million and \$210 million in 2009 and 2010, respectively.<sup>100</sup> In Q3 2011, free cash flow grew 22 percent compared to Q3 2010.<sup>101</sup> Sirius XM’s management predicted that free cash flow for 2011 would reach \$400 million, or a 90 percent increase over 2010.<sup>102</sup>

66. Mr. Karmazin expects Sirius XM’s free cash flow to continue growing in 2012:

To put it mildly, we’ve come a long way, and it gets better. Our 2011 guidance calls for our free cash flow to increase 75% next year versus 2011 to approximately \$700 million, driven by improved operating results and lower capital expenditures.

Let’s put this in perspective. In 2012, we plan to grow our cash generation to nearly \$2 million every day, that’s including weekends and holidays. Truly an astounding statistic, which will obviously represent the best free cash flow in the history of the company.<sup>103</sup>

67. Consistent with my own analysis, analyst projections, and statements made by Sirius XM’s senior management regarding growth projections, sophisticated investors also expect that Sirius XM’s financial performance will continue to improve. For example, the College Retirement Equities Fund (CREF) Stock Account and the Vanguard Morgan Growth Fund, which hold large ownership stakes in Sirius XM common stock,<sup>104</sup> both invest in U.S. companies whose revenues or earnings are expected to grow at a rate faster than that of the average firm in the market. The summary prospectus for the Vanguard Morgan Growth Fund states, “The Fund invests mainly in the stocks of mid- and large-capitalization U.S. companies whose revenues and/or earnings are expected to grow faster than those of the

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<sup>100</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 36.

<sup>101</sup> “Sirius XM Radio Inc., Q3 2011 Earnings Call,” Capital IQ, November 1, 2011, p. 3.

<sup>102</sup> “Sirius XM Radio Inc., Q3 2011 Earnings Call,” Capital IQ, November 1, 2011, p. 3. Sirius XM’s free cash flow for the first three quarters of 2011 already has exceeded its 2010 total free cash flow.

<sup>103</sup> “Sirius XM Radio Inc., Q3 2011 Earnings Call,” Capital IQ, November 1, 2011, p. 3.

<sup>104</sup> The CREF Stock Account and the Vanguard Morgan Growth Fund hold approximately 0.357 percent and 0.133 percent of SIRI common stock outstanding, respectively. See “Cap IQ - SIRIUS XM Radio Inc Investors by Fund.xls,” Capital IQ, retrieved on November 7, 2011.



average company in the market.”<sup>105</sup> Similarly, the CREF fund’s portfolio strategy notes, “The management team focuses on companies it believes are attractively priced based on an analysis of their prospects for growth in earnings, cash flow and revenues.”<sup>106</sup>

#### IV. METHODOLOGY AND RESULTS

##### A. Economic Definition of “Disruption”

68. In this section, I present an overview of the methodology I use to analyze the royalty rates proposed by SoundExchange.
69. The Copyright Royalty Judges stated in the 2007 rate proceeding that a royalty rate would clearly be disruptive if “it directly produces an adverse impact that is substantial, immediate and irreversible in the short-run.”<sup>107</sup> As a matter of economics, “disruptive” does not mean that a firm or an industry could not exhibit *any* decline in financial performance. In addition, as a matter of economic policy, one would not want to artificially keep afloat an otherwise failing firm or industry with an unwarranted subsidy in the form of a “too low” royalty rate. Indeed, firms make business decisions in the context of competition, aware that there were certain risks inherent when the business was started, and that certain risks exist as the business matures. Thus, a disruption can occur because a royalty is set too high or too low.
70. For the purposes of my analysis here, I consider a royalty rate to be “disruptive” if it were to lead to a substantial, immediate and irreversible decline as evidenced in the financial measures that the Copyright Royalty Judges have focused on in the past, i.e., Sirius XM’s EBITDA and free cash flows.<sup>108</sup>
71. The required analysis is necessarily forward-looking, that is, the analysis must project the *future* financial performance of Sirius XM, taking into account the proposed royalty rates. The relevant future time period is 2013 through 2017.

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<sup>105</sup> Vanguard Morgan Growth Fund Summary Prospectus, January 26, 2011, available at <https://institutional.vanguard.com/VGApp/iip/site/institutional/investments/literatureandprospectuses?strategy=1354427327>, p. 2.

<sup>106</sup> CREF Stock Account, September 30, 2011, available at <http://www.tiaa-cref.org/public/performance/retirement/profiles/1001.html>, 2011, p. 1.

<sup>107</sup> SDARS I, p. 4097.

<sup>108</sup> SDARS I, p. 4097.

72. I perform this analysis by utilizing analyst forecasts that incorporate many elements of Sirius XM's expected financial performance. Analyst forecasts provide a reasonable starting point for a forward-looking analysis because the estimates incorporate not only historical performance but also industry expertise, macroeconomic information that may affect future growth, and other information.
73. Using the proposed royalty rate schedule provided by counsel, I compute Sirius XM's incremental royalty costs for each year,  $t$ , from 2013 through 2017 as the difference between the proposed royalty rate for year  $t$  and the prior royalty rate of 8 percent (in 2012) times the revenue to which the proposed royalty rate applies. I make this computation under two alternative scenarios concerning revenues. First, I compute incremental royalties under the assumption that Sirius XM will pay royalties based on all of its reported revenue. In the second scenario, I assume that Sirius XM will pay royalties based on [ ] percent of its reported revenue (which I understand is approximately the percentage of revenue Sirius XM has reported to SoundExchange in the recent past for purposes of calculating its royalty obligation).
74. Finally, I re-calculate the EBITDA and free cash flow components of the analyst forecasts by subtracting the incremental costs associated with the proposed royalty rates. This type of financial modeling, which focuses on the effect of a quantifiable change in underlying assumptions, is standard in finance and accounting.<sup>109</sup> In this case, the quantifiable change is the increase in royalty rate from the 8 percent due to be charged in 2012 and reflected in analyst forecasts to the new rates proposed by SoundExchange.<sup>110</sup>
75. For 2011 through 2016, my analysis incorporates revenue and cost projections provided by Morgan Stanley in a report dated November 3, 2011. I consider the Morgan Stanley forecasts to be a reasonable and possibly conservative starting point for my analysis because:
- The Morgan Stanley forecasts of revenues and EBITDA are at or below the average of other forecasts available during this time period. See Attachment 2

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<sup>109</sup> See, e.g., Ross, Stephen, Randolph Westerfield and Jeffrey Jaffe, *Corporate Finance*, 2005, p. 216.

<sup>110</sup> If the analyst forecasts actually incorporate an expected royalty rate that is higher than 8 percent, then my approach will overstate the incremental royalty costs and understate the EBITDA and free cash flows that Sirius XM will experience.

and Attachment 8.

- The Morgan Stanley forecasts for 2011 are in line with those of Sirius XM's management.
- In 2008, Morgan published projections for 2009 through 2011, and Sirius XM's actual financial performance for those years has exceeded the forecasts.

None of my conclusions, however, is materially affected by relying on the specific projections made by Morgan Stanley.

76. Sirius XM's 2011 and 2012 guidance includes projections for revenue, adjusted EBITDA, and free cash flow. Morgan Stanley's projections are slightly greater than SiriusXM's guidance for each of those three metrics in both years, except for free cash flow in 2011.<sup>111</sup>
77. Longer-term Morgan Stanley forecasts also align with Sirius XM management's expectations.
- The Morgan Stanley projections are consistent with Sirius XM management's view<sup>112</sup> of continued revenue growth, subscriber growth, and increased used car subscribers.<sup>113</sup>
  - Sirius XM management has expressed a target leverage ratio for debt-to-EBITDA of 3.0, which it expects to approach by the end of 2011.<sup>114</sup> Morgan Stanley forecasts that Sirius will meet this target in early 2012.<sup>115</sup>

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<sup>111</sup> Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, p. 6. Morgan Stanley predicts \$3,021 million and \$3,372 million in revenue for 2011 and 2012, respectively. These figures are \$21 million and \$72 million greater than Sirius XM's guidance for the two years, respectively. Sirius XM's guidance for adjusted EBITDA is \$20 million and \$57 million lower than the Morgan Stanley projections for fiscal years 2011 and 2012, respectively. Sirius XM's guidance for free cash flow is \$41 million greater than and \$42 million less than the Morgan Stanley projections for 2011 and 2012, respectively.

<sup>112</sup> See, for example, "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 4; and "Sirius XM Radio Inc., Q2 2011 Earnings Call," Capital IQ, August 2, 2011, p. 2.

<sup>113</sup> Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 10, 12, 14, and 16.

<sup>114</sup> "Sirius XM Radio Inc., Q1 2011 Earnings Call," Capital IQ, May 3, 2011, p. 4.

<sup>115</sup> Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, p. 3.

78. Because analyst forecasts are not available for 2017, I estimated 2017 results by assuming that Sirius XM's revenues, EBITDA and free cash flow all would increase from 2016 levels by the growth rate forecasted for annual GDP (gross domestic product). The projected GDP growth rate for 2017 is 4.8 percent,<sup>116</sup> which is considerably lower than the projected 2016 growth rate for Sirius XM's revenue of 8.2 percent and the average projected growth rate for 2012 to 2016 of 9.6 percent. Therefore I consider my estimated results for 2017 to be conservative (i.e., they are likely to understate Sirius XM's financial performance).

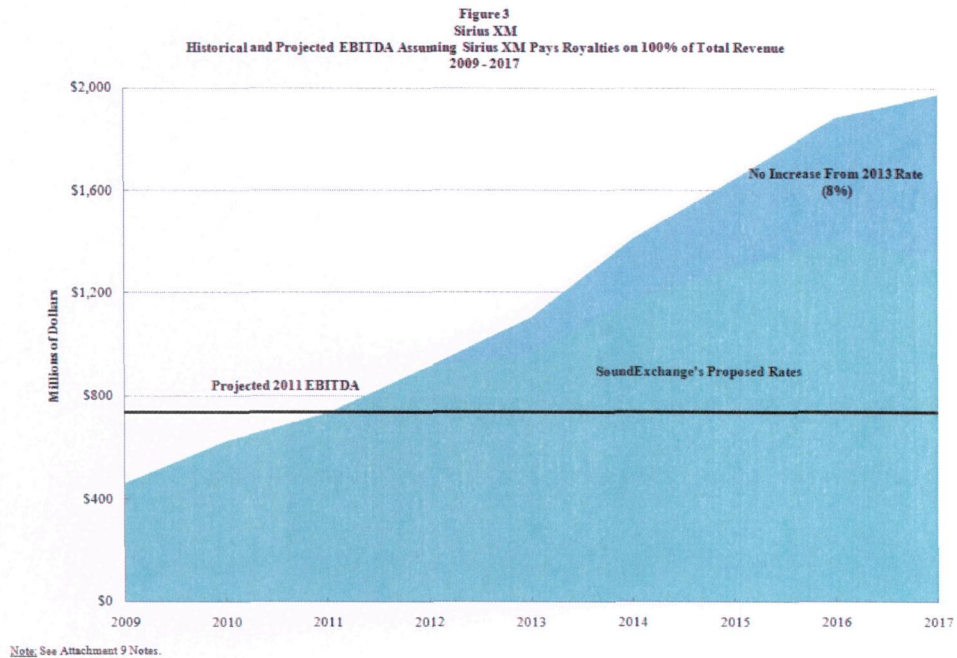
**B. Results of Royalty Analysis**

79. I understand that SoundExchange is proposing the following royalty rate schedule: 12 percent for 2013, 14 percent for 2014, 16 percent for 2015, 18 percent for 2016, and 20 percent for 2017.
80. In Attachment 9, I show the effect of the proposed royalty rate schedule on Sirius XM's projected EBITDA, assuming that Sirius XM pays royalties based on 100 percent of its total revenues. In this analysis, I further assume that Sirius XM would completely absorb the additional expense associated with the proposed royalty rates. That is, I assume that Sirius XM would not "pass on" any of the additional royalty amounts through an increase in the U.S. Music Royalty Fee (or other new increase in subscriber prices). Under this assumption, Sirius XM's projected EBITDA would be \$917.4 million in 2012, \$958.9 million in 2013 (the first year of the new royalty) and \$1,321.5 million in 2017 (the fifth year of the new royalty rate). All of these figures are substantially higher than Sirius XM's projected EBITDA for 2011 of \$734.7 million. Figure 3 below illustrates graphically how Sirius XM's EBITDA will increase dramatically over the coming rate term compared to current levels if SoundExchange's proposed rates are adopted.<sup>117</sup>

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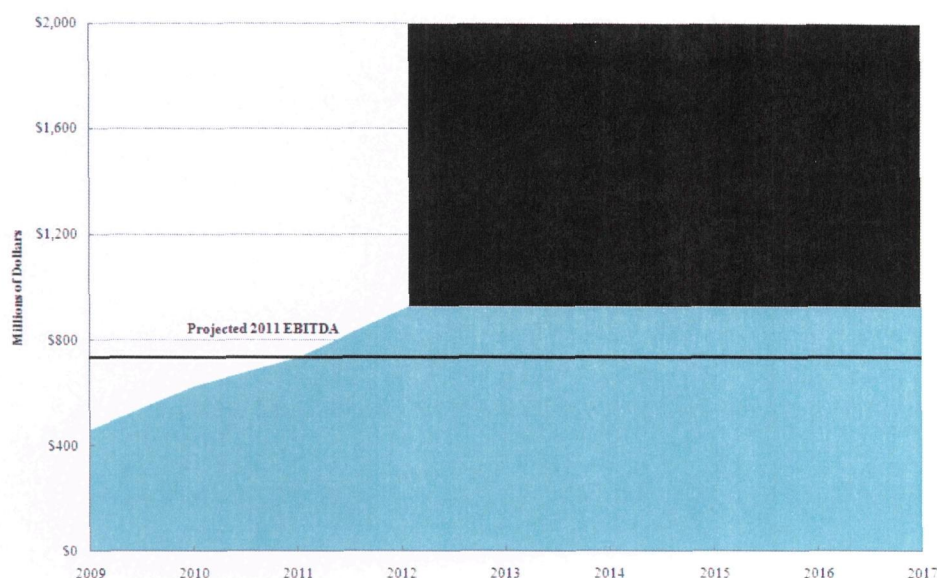
<sup>116</sup> Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: An Update," August 2011, p. 72.

<sup>117</sup> The slight decline in my EBITDA and free cash flow projections for 2017 under SoundExchange's proposed rate, visible in Figures 3 through 7, is due in large part to my conservative revenue growth projection for that year discussed earlier in this report.



81. In fact, I understand that Sirius XM has historically paid royalties to SoundExchange calculated on approximately [REDACTED] percent of its total revenues. If I assume that Sirius XM will continue paying royalties on this proportion of its total revenues, then Sirius XM's EBITDA projections are even higher: [REDACTED] million in 2013 (the first year of the new royalty) and [REDACTED] million in 2017 (the fifth year of the new royalty rate). See Attachment 10. Again, these projections are based on the assumption that Sirius XM would not "pass on" any of the additional royalty amounts through an increase in the U.S. Music Royalty Fee (or other new increase in subscriber prices). Figure 4 below illustrates graphically how Sirius XM's EBITDA will increase over the coming rate term compared to current levels if Sirius XM applies the proposed royalty rates to [REDACTED] percent of total revenues.

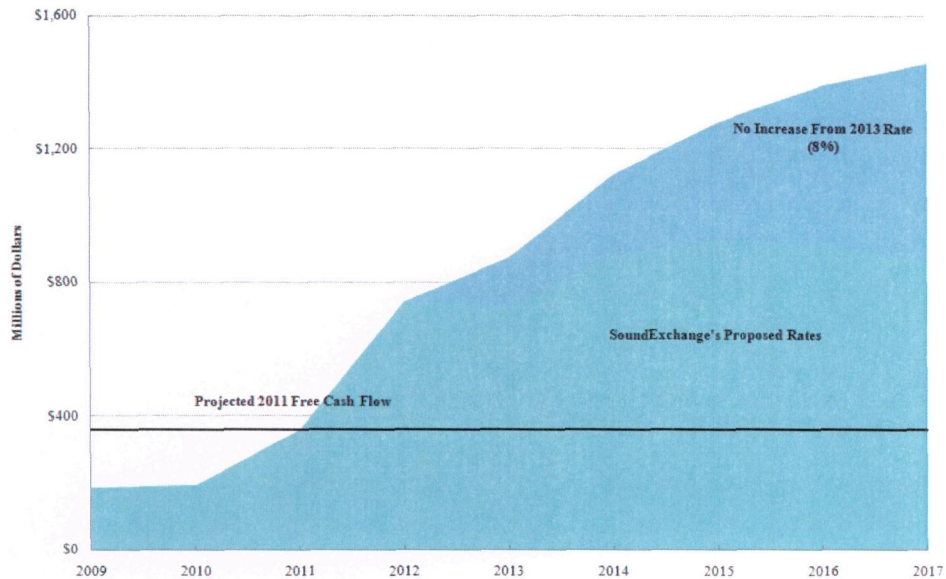
Figure 4 [RESTRICTED]  
 Sirius XM  
 Historical and Projected EBITDA Assuming Sirius XM Pays Royalties on [ ] of Total Revenue  
 2009-2017



Note: See Attachment 10 Notes.

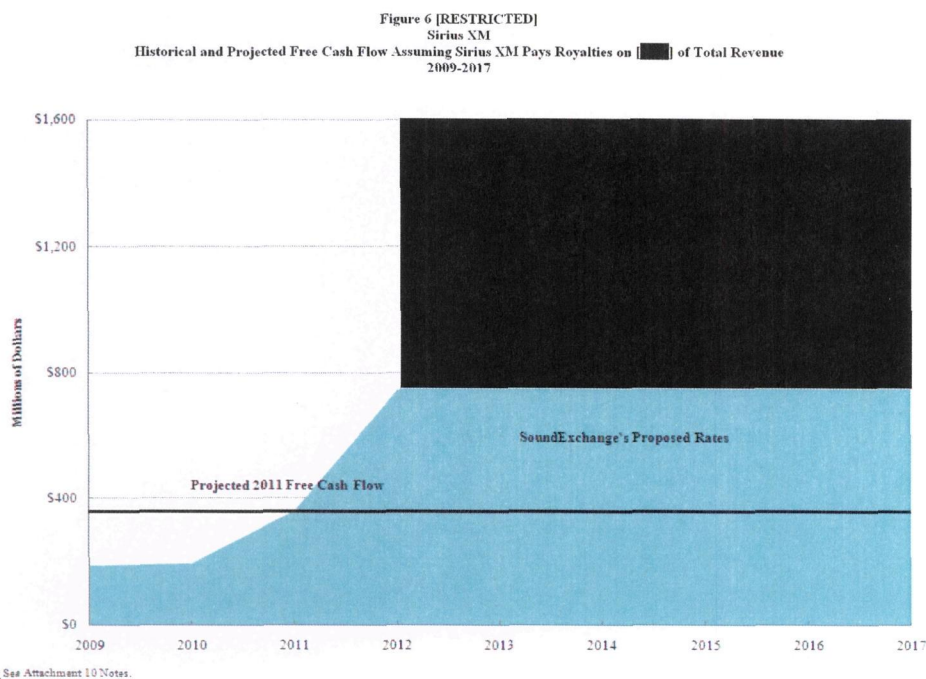
82. Attachment 9 also shows the effect of the proposed royalty rate schedule on Sirius XM’s projected free cash flow, if royalty payments apply to 100 percent of total revenue. Again assuming that Sirius XM would not pass on any of the additional royalty amounts through an increase in the U.S. Music Royalty Fee, Sirius XM’s free cash flow would increase from \$741.6 million in 2012 to \$725.0 million in 2013 and to over \$900 million in 2015 and 2016. For the five-year period 2013 through 2017, Sirius XM’s ratio of free cash flow to revenues would average about 20 percent, or nearly twice as high as the average ratio of 12 percent for the four-year period 2009 through 2012 (i.e., excluding the negative free cash flow of 2008). Figure 5 below illustrates graphically the increase in Sirius XM’s free cash flow over the coming rate term compared to current levels if SoundExchange’s proposed rates are adopted.

Figure 5  
 Sirius XM  
 Historical and Projected Free Cash Flow Assuming Sirius XM Pays Royalties on 100% of Total Revenue  
 2009 - 2017



Note: See Attachment 9 Notes.

83. The free cash flow results are even stronger if I assume that Sirius XM will continue to make royalty payments on approximately [REDACTED] percent of its total revenue. Sirius XM's free cash flow would increase from [REDACTED] million in 2012 to [REDACTED] million in 2013 and to [REDACTED] million in 2017. See Attachment 10. Figures 6 below illustrates graphically Sirius XM's strong projected free cash flow over the coming rate term if Sirius XM applies the proposed royalty rates to [REDACTED] percent of total revenues.

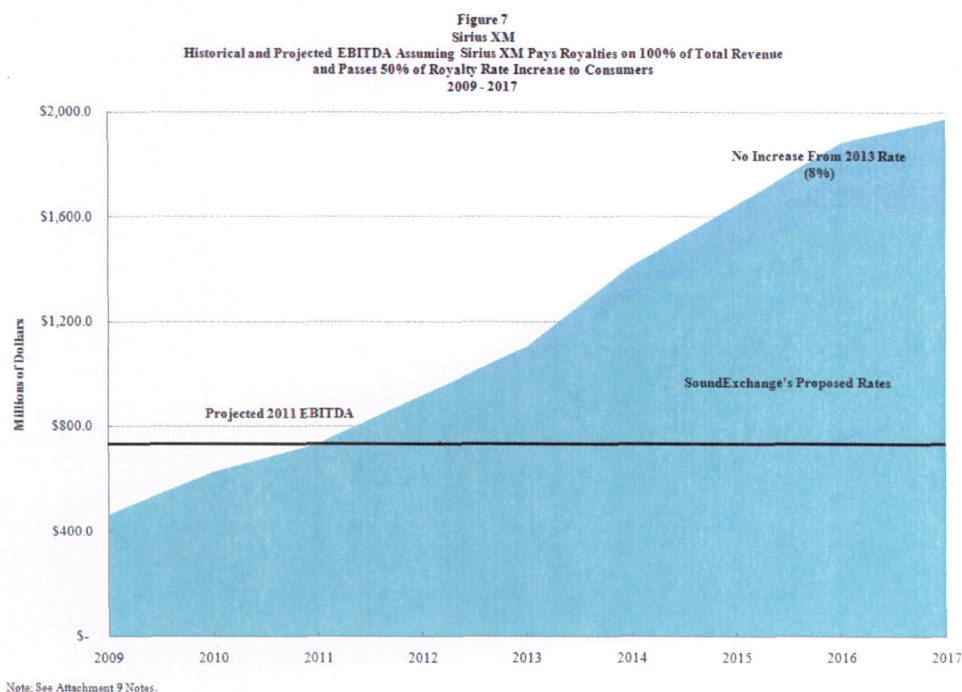


84. The results shown in Attachments 9 and 10 confirm that the proposed royalty rate schedule would not be disruptive to Sirius XM. Indeed, a much higher royalty rate could be enacted without causing disruption to Sirius XM. For example, assuming Sirius XM paid royalties on 100 percent of its revenues, the royalty rate in 2013 would have to be over 31 percent to cause Sirius XM's free cash flow in that year to equal zero, and even then, free cash flow would be positive in subsequent years. The royalty rate would have to be over 37 percent to cause Sirius XM's free cash flow in 2017 to equal zero.
85. The results presented in Attachments 9 and 10 and discussed immediately above are based on the assumption that Sirius XM would be unable to "pass on" any of the additional royalty amounts through an increase in the U.S. Music Royalty Fee (or through some other increase in subscriber prices). Of course, if Sirius XM were able to pass through some or all of the rate increases to its customers, then its financial performance would be even better than I have calculated under the more conservative assumption.<sup>118</sup> For example, if

<sup>118</sup> I understand that Sirius XM had plans at some point to recover all of its music royalty fees through the U.S. Music Royalty Fee. Sirius XM, Pricing Scenarios: Draft 2 (Exhibit 44 to Motion for Summary Judgment, Declaration of James J. Sabella in Opposition, *Blessing v. Sirius XM Radio Inc.*, 1:09-cv-10035-HB -RLE,



Sirius XM applies the royalty to 100 percent of revenues and is able to pass on 50 percent of the increase (without any significant decline in subscribership), then EBITDA is projected to increase as shown in Figure 7 below.



86. As I discussed above, recent history indicates that Sirius XM has passed on increased royalty rates to its subscribers in the form of a \$1.98 U.S. Music Royalty Fee, which was instituted in July 2009 to recoup fully the royalty increases from the last SDARS proceeding.<sup>119</sup> At that time, the U.S. Music Royalty Fee amounted to a price increase of roughly 15 percent on the basic \$12.95 subscription.<sup>120</sup> Notwithstanding this substantial

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ECF No. 102-13, p. 24, filed on May 16, 2011) (“We [Sirius XM] would evolve MRF [Music Royalty Fee] to be the full music royalty rate.”).

<sup>119</sup> Letter from James S. Blitz, Vice President, Regulatory Counsel, Sirius XM Radio Inc., to Jacqueline Ellington, Esq., Spectrum Enforcement Division, Enforcement Bureau, FCC (May 12, 2010) (Exhibit 72 to Motion for Summary Judgment, Declaration of James J. Sabella in Opposition, *Blessing v. Sirius XM Radio Inc.*, 1:09-cv-10035-HB –RLE, ECF No. 102-15, pp. 68-71, filed on May 16, 2011). The U.S. Music Royalty Fee is \$0.97 for plans with a second radio discount and does not apply to certain subscriptions including internet plans and plans that do not include musical performances. See <http://www.siriusxm.com/usmusicroyalty>.

<sup>120</sup> I note that this percentage is significantly higher than the maximum royalty rate in the 2008 CRB decision of 8 percent. As discussed above, in December 2010 Sirius XM lowered the U.S. Music Fee to \$1.40, or

price increase, the number of Sirius XM subscribers grew the following two quarters (and, in fact, every quarter since then), whereas the number of Sirius XM subscribers had actually declined during the two quarters immediately prior to the institution of the Music Royalty Fee.<sup>121</sup> This implies that Sirius XM may be able to pass on some or all future royalty increases to its customers.<sup>122</sup>

### C. Risk Analysis

87. As discussed above, research analysts, sophisticated investors, and Sirius XM's management are optimistic about the cash flows expected by Sirius XM. It is worth noting that other measures of financial risk buttress my conclusions that the financial health of Sirius XM will not be disrupted by the royalty rate schedule proposed by SoundExchange. In this subsection, I present the results of additional research on the certainty of Sirius XM's expected future cash flows, a process known in the finance industry as risk analysis. Like the performance metrics from financial statements, Sirius XM's risk metrics have dramatically improved since the merger.

#### 1. *Sirius XM's debt obligations*

88. The compensation investors require when lending funds to an enterprise is reflected in the yields of that enterprise's publicly-traded bonds. Because yield data result from market participants' expectations, they are reliable indicators of the risk that investors assess for the companies that issued the bonds. When investors perceive low risk, they require less compensation (relative to the risk-free return) for investment in a company's debt, which is reflected in lower yields. In contrast, when risk is elevated, investors require a higher compensation for investing in the firms' securities, which is then reflected in higher yields.
89. In the case of Sirius XM, yields have dropped substantially since the first two months of 2009. As Attachment 11 demonstrates, Sirius XM's debt yields stabilized in early 2010 at

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approximately 11 percent of the basic subscription price. I have seen no evidence that Sirius XM reduced the rate because of any concern that it was losing subscribers.

<sup>121</sup> Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2009, p. 2; Sirius XM Radio Inc., Form 10-Q for the fiscal quarter ended September 30, 2009, p. 36; Sirius XM Radio Inc., Form 10-Q for the fiscal quarter ended June 30, 2009, p. 40; Sirius XM Radio Inc., Form 10-Q for the fiscal quarter ended March 31, 2009, p. 35; and Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2008, p. 4.

<sup>122</sup> In order to properly analyze this question, one would first have to compute the elasticity of demand for Sirius XM's products. Sufficient data for this computation are not currently available to me.

levels roughly 85 percent below those in early 2009, and have remained at that level (or slightly lower) since then.

90. To place Sirius XM's debt yields into context, I compared them to the yields of the Moody's Baa-rated Corporate Bonds index, which is Moody's cutoff for "investment-grade" status. Over the past 90 years, an average of only 0.27 percent of Baa-rated corporate bonds have defaulted.<sup>123</sup> Even in the challenging economic environment of the last five years, the corporate default rate of Baa-rated companies has remained below one percent.<sup>124</sup>
91. As Attachment 11 further demonstrates, the yields of Sirius XM debt have resembled those of the Moody's Baa-rated Corporate Bonds index for over a year. As of November 16, 2011, the weighted average yield of the Sirius XM Bonds (excluding the convertible bond) was 5.57 percent, within a half percent of the Baa index. If I include the convertible bond in the weighted average yield of Sirius XM's debt, the average yield is below the yield of the Baa index. This indicates that investors in Sirius XM's debt require compensation that is roughly equivalent to, or less than, the compensation required from the investment-grade companies that constitute the Baa index. In other words, the yield data indicate that investors in Sirius XM's debt assign it a low risk, in comparison to both the company's 2009 risk levels and the lowest-rated investment-grade companies (i.e., Baa) today.
92. I also reviewed Sirius XM's credit ratings. Credit ratings are published by analysts assessing the likelihood of a firm's failure to repay its general obligations. While I treat this review as a sensitivity analysis, it is a common starting point in risk analysis. Further, the relationship between credit ratings and important financial characteristics (such as systematic risk, non-systematic risk, profitability, riskiness of the profit stream, and interest coverage) has long been recognized by academics.<sup>125</sup>
93. Moody's Investors Service, a nationally-recognized statistical rating organization

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<sup>123</sup> From 1920 through 2010, the median percentage of defaults among Baa-rated companies was 0.000. Moody's Investors Service, "Special Comment: Corporate Default and Recovery Rates, 1920-2010," February 28, 2011, p. 29.

<sup>124</sup> Moody's Investors Service, "Special Comment: Corporate Default and Recovery Rates, 1920-2010," February 28, 2011, p. 29.

<sup>125</sup> See, for example, Kaplan, Robert and Gabriel Urwitz, "Statistical Models of Bond Ratings: A Methodological Inquiry," *Journal of Business*, April 1979, pp. 231-61.

(“NRSRO”), publishes “Probability of Default” ratings on the debt of Sirius XM. Since issuing Sirius XM a “Ca” rating in December of 2008, Moody’s has announced five consecutive upgrades to a B1 rating in May of 2011 (a rating that is still in effect).<sup>126</sup> Historically, Ca and C-rated corporations have been twelve times more likely to default than B1-rated corporations, such as Sirius XM.<sup>127</sup> Consistent with the yield data I analyzed above, Moody’s ratings indicate that the risk profile of Sirius XM has dramatically improved since 2009.

94. Standard and Poor’s, also an NRSRO, upgraded Sirius XM’s long term issuer rating to “BB” as recently as a month ago.<sup>128</sup> The S&P announcement noted the potential changes in the competitive landscape that I identified above and that the Morgan Stanley Report cited above also takes into consideration. S&P stated that it expects Sirius XM to experience stable debt levels and earnings growth in 2012. The S&P announcement also cited the company’s soaring profits, record-high number of subscribers, and improved costs per subscriber.<sup>129</sup>
95. In summary, debt-holders and credit rating agencies view Sirius XM positively. The EBITDA and free cash flow projections the company is expected to achieve even with the proposed royalty rate schedule, as shown in Attachments 9 and 10, are unlikely to change Sirius XM’s risk profile as viewed by lenders and credit rating agencies.

## 2. *Equity investor assessment of Sirius XM*

96. The equity markets provide additional insight into the strength of Sirius XM’s cash flow prospects. Like investors in debt instruments, equity investors seek returns on their

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<sup>126</sup> Moody’s currently rates Sirius XM’s individual bonds between B2 and Ba2. The company’s current Long-Term Domestic Issuer Rating is B2. (Bloomberg, L.P., Sirius XM Radio, Inc. - Credit Profile – Moody’s - Probability of Default, accessed November 27, 2011.) Bloomberg L.P. reports no history for the Long-Term Issuer Rating, which became effective May 24, 2011. (Bloomberg, L.P., Sirius XM Radio, Inc. – Credit Profile – Moody’s – Long Term Rating, accessed November 28, 2011.)

<sup>127</sup> From 1983-2010, an average of 32.5 percent of Ca-C-rated corporations have defaulted. During that same time period, 2.7 percent of B1-rated corporations have defaulted. Moody’s Investors Service, “Special Comment: Corporate Default and Recovery Rates, 1920-2010,” February 28, 2011, p. 31.

<sup>128</sup> This upgrade was the sixth in a series of consecutive upgrades issued by S&P, which began in early 2009. (Bloomberg, L.P., Sirius XM Radio, Inc. - Credit Profile – Standard and Poor’s – LT Local Issuer Credit, accessed November 27, 2011.)

<sup>129</sup> Tadana, Nathalie, “S&P Lifts Sirius XM’s Rating, Citing Reduced Debt Leverage,” Dow Jones Newswires, October 26, 2011.

investments. However, the nature of equity investments differs from bond investments in two ways that are relevant to this analysis.<sup>130</sup>

97. First, equity investors (“shareholders”) possess claims to the cash flows generated by a firm *above and beyond* the cash needed to pay bond holders and taxes (as well as other after-debt uses of a firm’s cash that occur with less regularity). Because equity investments are “residual claims” to a firm’s cash flow, the risk incurred by shareholders is higher than that of creditors. The difference in risk levels is reflected in the difference between bond yields and the cost of equity.
98. Second, modern portfolio theory has established that required returns on equity investments are determined by the risk each stock introduces to a diversified portfolio. The Nobel Prize-winning works of Professors Harry Markowitz and William Sharpe demonstrated that investors evaluate the projected cash flows to equity holders in the context of risks that cannot be eliminated through diversification. The non-diversifiable risk of a stock, in this case Sirius XM, is evaluated by market participants and used to determine the stock’s cost of equity. The cost of equity is the measure of compensation required to provide shareholders adequate incentive for bearing the uncertainty introduced to the shareholder’s diversified portfolio by a given stock. The higher the risk incurred by shareholders, the higher the cost of equity.
99. I obtained Sirius XM’s cost of equity from Bloomberg L.P. and the average cost of equity for the radio and television broadcasting industry from Ibbotson Morningstar.<sup>131</sup> Sirius XM’s cost of equity of 11.60 percent is considerably below that of the radio and television industry composite (or weighted average) cost of 15.74 percent.<sup>132</sup> From an economic perspective, investors currently require smaller returns from shareholdings in Sirius XM

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<sup>130</sup> The interest-rate tax shield is typically another difference between the cost of equity and the cost of debt, however because Sirius XM has the advantage of not paying taxes for the next several years the other factors I describe dominate the interest-rate tax shield in terms of relevance.

<sup>131</sup> Bloomberg, L.P., Sirius XM Radio, Inc. - Weighted Average Cost of Capital Inputs - Cost of Equity, accessed November 20, 2011. See also, “SIC 483,” Ibbotson, Morningstar, September 30, 2011. Sirius XM’s SIC code is 4832, *Radio broadcasting*. This 4-digit SIC includes only eight other firms. Sirius XM is by far the largest of the nine, so it has a large influence on industry average or composite measures. SIC 483, *Television and radio broadcasting*, is a broader category that includes 21 total firms.

<sup>132</sup> Sirius XM’s cost of equity is included in Ibbotson’s calculation of the industry average. If one were to exclude Sirius XM from the composite, the difference would be even larger.

than the returns required from investing in the radio and television broadcasting industry as a whole.

3. *Sirius XM's return on invested capital*

100. In addition to analyzing Sirius XM's stock and bond data separately, I assessed them together through a measure known as return on (total) invested capital ("ROIC"). ROIC measures the aggregate return available to a firm's debt and equity investors.<sup>133</sup> The ROIC measure shows that Sirius XM is currently generating returns beyond those required by stock and bond holders, controlling for the company's risk level. These returns also far exceed those generated by other firms in the radio and television broadcasting industry. These returns are projected to continue throughout the upcoming royalty period of 2013 through 2017.
101. Attachment 12 shows actual and projected ROIC under the assumption that the proposed royalty rate schedule will apply to 100 percent of Sirius XM's revenues. Sirius XM's weighted-average cost of capital ("WACC") measures the returns required by the firm's investors in aggregate. WACC is calculated by separately measuring the returns required by lenders and by equity investors, and then weighting those returns by the proportion of debt and equity in a firm's capital structure. As Attachment 12 shows, Sirius XM's current WACC is 9.79 percent.<sup>134</sup>
102. In 2011, Sirius XM generated a return on its invested capital of 16.35 percent, well in excess of the 9.79 percent WACC. This differential indicates that Sirius XM's activities have enhanced investors' wealth. As Attachment 12 also shows, the projected ROIC values for Sirius XM (incorporating the effect of the proposed royalty rate schedule) exceed the current WACC. Thus, the data indicate Sirius XM's ability to outperform the returns commensurate with its risk levels in coming years.
103. Sirius XM also outperforms the average ROIC of the radio and television broadcasting industry. The latest ROIC of radio and television broadcasting industry composite was 3.90 percent, far below Sirius XM's ROIC of 16.35 percent and also below the industry

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<sup>133</sup> Return on invested capital is "a useful means of comparing companies (...) in terms of efficiency of management and viability of product lines." Dictionary of Finance and Investment Terms, Barron's Financial Guides, eighth edition (2010), p. 608.

<sup>134</sup> Bloomberg, L.P., Sirius XM Radio, Inc. - Weighted Average Cost of Capital, accessed November 20, 2011.

composite WACC of 11.54 percent.<sup>135</sup> This comparison also illustrates that an ROIC below WACC is a common event and not in itself indicative of economic disruption.

104. As shown in Attachment 13, the ROIC results are even stronger if the royalty rate schedule is applied to [ ] percent of Sirius XM's total revenues.

## V. CONCLUSION

105. My analysis demonstrates that the royalty rate schedule proposed by SoundExchange would not be "disruptive" to the satellite radio industry, and more particularly, to Sirius XM. I find that the EBITDA and free cash flow impacts of the proposed royalty rate schedule, which ranges from 12 percent of revenues in 2013 to 20 percent in 2017, would not introduce a sudden inability for Sirius XM to remain current in payments and sustain future operations. Indeed, my results are conservative, in that Sirius XM's financial performance would not be disrupted by even higher royalty rates than those proposed by SoundExchange. I also base these results on the conservative assumption that Sirius XM would not pass on to its customers any of the proposed royalty rate increases.

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<sup>135</sup> My conclusions are unchanged if I compare Sirius XM to the *Radio broadcasting* sub-group.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: 11/28/2011

Thomas Z. Lys  
Thomas Z. Lys



**Appendix A**  
**Curriculum Vitae**  
**Thomas Z. Lys**  
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## EDUCATION

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Lic.Rer.Pol. University of Berne, Switzerland, 1976 (Economics & Operations Research, summa cum laude).

## ACADEMIC APPOINTMENTS

Kellogg Graduate School of Management, Northwestern University (1981-present)

- 2006- Eric L. Kohler Chair in Accounting and Professor of Accounting and Information Management
- 1999-06 Gary A. Rosenberg Distinguished Professor of Real Estate Management, Professor of Accounting and Information Management, and Director, Guthrie Center for Real Estate Research.
- 1997-99 Gary A. Rosenberg Distinguished Associate Professor of Real Estate Management, Associate Professor of Accounting and Information Systems, and Director, Guthrie Center for Real Estate Research.
- 1995-97 John L. and Helen Kellogg Distinguished Associate Professor of Accounting and Information Systems
- 1989-95 Associate Professor of Accounting and Information Systems.
- 1981-89 Assistant Professor of Accounting and Information Systems.

Northwestern School of Law, Northwestern University

- 2000- Professor of Law (courtesy appointment).

Graduate School of Business, Stanford University (January-August, 1997): Visiting Associate Professor of Accounting.

Graduate School of Business, University of Chicago (1986-87): Visiting Assistant Professor of Accounting.

## PUBLICATIONS – ARTICLES (For recent articles see: <http://ssrn.com/author=23037>)

- 31) The Financial Reporting Environment: Review of the Recent Literature (with Anne Beyer, Daniel Cohen, and Beverly Walther), *Journal of Accounting and Economics*, December 2010, 50(2-3): 296-343.
- 30) Real and Accrual-based Earnings Management in the Pre- and Post-Sarbanes Oxley Periods (with Daniel Cohen and Aiysha Dey), *The Accounting Review*, May 2008, 82(3): 757-787.
- 29) Endogenous Entry/Exit as an Alternative Explanation for the Disciplining Role of Independent Analysts (with Jayanthi Sunder), *Journal of Accounting and Economics*, August 2008, 45(2-3): 317-323.
- 28) Earnings Announcement Premia and the Limits to Arbitrage (with Daniel Cohen, Aiysha Dey, and Shyam Sunder), *Journal of Accounting and Economics*, July 2007, 43(2-3): 153-180 (lead article).

**PUBLICATIONS – ARTICLES** (continued)

- 27) Weighing the Evidence on the Relation between External Corporate Financing Activities, Accruals and Stock Returns (with Daniel A. Cohen), *Journal of Accounting and Economics*, October 2006, 42(1-2): 87-105.
- 26) Significant Clinical Practice Cost Savings through Downsizing Office Supply Inventory and Just in Time Ordering (with C. M. Gonzalez, T. Jang, M. Raines, and A. J. Schaeffer), *Journal of Urology*, 2006 176(1).
- 25) A Note on Analysts' Earnings Forecast Errors Distribution (with Daniel A. Cohen), *Journal of Accounting and Economics*, December 2003, 36(1-3): 147-164.
- 24) The internet downturn: finding valuation factors in spring 2000 (with Elizabeth K. Keating and Robert P. Magee), *Journal of Accounting and Economics*, January 2003, 34(1-3): 189-236.
- 23) The effect of accounting information on corporate financing choices: an examination of security issuances in the banking industry (with Marguerite Bishop), *Contemporary Accounting Research*, Fall 2001, 18(3): 397-423.
- 22) Empirical research on accounting choice (with Thomas Fields and Linda Vincent), *Journal of Accounting and Economics*, September 2001, 31(1-3): 255-307.
- 21) The Ohlson model, contribution to valuation theory, limitations, and empirical applications (with Kin Lo), *Journal of Accounting, Auditing, and Finance*, Summer 2000, 15(3): 337-367.
- 20) Auto-correlation structure of forecast errors from time-series models: Implications for post-earnings announcement drift studies (with John Jacob and Jowell Sabino), *Journal of Accounting and Economics*, December 1999, 28: 329-358.
- 19) Use of  $R^2$  in accounting research: measuring changes in value relevance over the last four decades (with Stephen Brown and Kin Lo), *Journal of Accounting and Economics*, December 1999, 28: 83-115.
- 18) Expertise in forecasting performance of security analysts (with John Jacob and Margaret Neale), *Journal of Accounting and Economics*, November 1999, 28: 51-82.
- 17) A closer look at post earnings announcement drift: the role of the dissemination of predictable information (with Leonard Soffer), *Contemporary Accounting Research*, Summer 1999, 16: 305-31.
- 16) Abandoning the transactions-based accounting model: weighing the evidence, *Journal of Accounting and Economics*, July/September/November 1996, 22: 155-176.
- 15) An analysis of the value destruction in AT&T's acquisition of NCR (with Linda Vincent), *Journal of Financial Economics*, October-November 1995, 39: 353-378.
- 14) Analysts' forecast precision as a response to competition (with Lisa Gilbert Soo), *Journal of Accounting, Auditing, and Finance*, March 1995, 10: 751-765.
- 13) Lawsuits against auditors under the security acts (with Ross L. Watts), *Journal of Accounting Research*, Supplement 1994, 32: 65-93.
- 12) The evolution of lawsuits against auditors - determinants, consequences, and solutions, *Journal of Economics and Management Strategy*, Fall 1993, 2: 427-434.
- 11) Research design issues in grouping-based tests (with Jowell S. Sabino), *Journal of Financial Economics*, December 1992, 32: 355-387.
- 10) The association between revisions of financial analysts' earnings forecasts and security price changes (with Sungkyu Sohn), *Journal of Accounting and Economics*, December 1990, 13: 341-364.
- 9) The market for audit services: evidence from voluntary auditor changes (with W. Bruce Johnson), *Journal of Accounting and Economics*, January 1990, 12: 281-309.
- 8) Earnings expectations and capital restructuring: the case of equity for debt swaps (with Konduru Sivaramakrishnan), *Journal of Accounting Research*, Autumn 1988, 26: 273-299.
- 7) Auditor liability and information disclosure (with S.P. Kothari, Clifford W. Smith and Ross L. Watts), *Journal of Accounting, Auditing and Finance*, Fall 1988, 3: 307-340.

**PUBLICATIONS – ARTICLES (continued)**

- 6) An empirical analysis of the incentives to engage in costly information acquisition: the case of risk arbitrage (with David F. Larcker), *Journal of Financial Economics*, March 1987, 18: 111-126.
- 5) Labor participation in private business making decisions: the German experience with code-termination (with Giuseppe Benelli and Claudio F. Loderer), *Journal of Business*, October 1987, 60: 553-575.
- 4) Daily monetary impulses and security prices (with Claudio F. Loderer and Urs Schweizer), *Journal of Monetary Economics*, July 1986, 18: 33-48.
- 3) Auditor changes following big eight takeover of non-big-eight audit firms (with Paul Healy), *Journal of Accounting and Public Policy*, Winter 1986, 5: 251-265.
- 2) Discussion of: Capital analysis of reserve recognition accounting, *Journal of Accounting Research*, Supplement 1986, 24: 109-111.
- 1) Mandated accounting changes and debt covenants: the case of oil and gas accounting, *Journal of Accounting and Economics*, April 1984, 6: 39-65, reprinted in *The Economics of Accounting Policy Choice*, Ray Ball and Clifford W. Smith JR., editors, McGraw-Hill, Inc: New York, 1992: 681-707.

**PUBLICATIONS – BOOKS, BOOK CHAPTERS AND OTHER PUBLICATIONS**

- Financing Decisions by Company (Net Stock Anomalies), (with Daniel Cohen and Tzachi Zach) in *Conceptual Foundations of Capital Market Anomalies – Handbook of Investment Anomalies*, Len Zacks, ed., Wiley, forthcoming
- Monetary theory and monetary policy - The collected essays of Karl Brunner*, volume two, (editor), Edward Elgar Publishing Ltd: Cheltenham, UK, 1997.
- Economic analysis and political ideology - The collected essays of Karl Brunner*, volume one (editor), Edward Elgar Publishing Ltd: Cheltenham, UK, 1996.
- Discretion in financial reports: communicating in a less-than-rational world (with Margaret Neale), *CEO Magazine*, December 1996, 119: 72-73.
- The real value of takeovers to shareholders, in *The Handbook of Communications in Corporate Restructuring and Takeovers*, Clarke L. Caywood and Raymond P. Ewing, editors, Prentice Hall: Englewood Cliffs, 1992: 86-89.

## WORKING PAPERS

- How Much Silence is Too Much? An Empirical Analysis of Firms Ceasing Guidance of Different Frequencies (with Gary Chen and Jie Zhou), 2011.
- The Nature and Implications of Acquisition Goodwill (with Linda Vincent and Nir Yehuda), 2011.
- Conservatism and analyst earnings forecast bias (with Henock Louis and Amy X. Sun), 2010.
- An Examination of the Impact of the Sarbanes-Oxley Act on the Attractiveness of US Capital Markets for Foreign Firms (with Peter Hostak, N. Emre Karaoglu, and Yong (George) Yang), 2010.
- Earnings Management and the Predictive Ability of Accruals with Respect to Future Cash Flows (with Brad Badertscher and Daniel W. Collins), 2010.
- The Sarbanes Oxley Act of 2002: Implications for Compensation Contracts and Managerial Risk-Taking (with Daniel Cohen and Aiysha Dey), 2010.
- Motives for and Risk-Incentive Implications of CEO Severance (with Tjomme Rusticus and Ewa Sletten), 2008.
- Exceptions do not Change the Rule: Substance Overrules Form in US GAAP (with N. Emre Karaoglu), 2008.
- Optimal structure of the consideration in mergers and acquisitions (with Thomas Fields), 2002.
- Bridging the Gap between Value Relevance and Information Content (with Kin Lo), 2001.
- Determinants and implications of the serial-correlation in analysts' earnings forecast errors (with John Jacob), 2000.
- Estimating auto-correlation coefficients in small samples (with Jowell S. Sabino and John Jacob), 2000.
- The role of earnings levels vs earnings changes in explaining stock returns: implications from the time series properties of earnings (with K. Ramesh and S. Ramu Thiagarajan), 1999.
- Addressing recognition issues in accounting: an evaluation of alternative research approaches (with Patricia Dechow and Jowell Sabino), 1998.

## EDITORIAL POSITIONS

- Consulting Editor, *Journal of Accounting and Economics*, 2010-2011.
- Editor, *Journal of Accounting and Economics*, 1999-2010.
- Associate Editor, *Journal of Accounting and Economics*, 1988-1999.
- Editorial Board, *The Accounting Review*, 1986-89.

## TEACHING

- MBA level: Financial Accounting; Security Analysis; Financial Statement Analysis; Mergers and Acquisitions.
- Executive MBA level: Financial Accounting; Security Analysis; Mergers and Acquisitions.
- Executive non-degree:
- Strategies for Improving Directors' Effectiveness (Academic Director)
  - Women's Director Development Program;
  - Minority Director Development Program;
  - Merger Week – Creating Value through Strategic Acquisitions and Alliances;
  - Biotechnology – Strategies for Growth;
- Lecture capabilities in English, French, German, and Polish.

**HONORS AND AWARDS**

Outstanding Professor Award, Executive Masters' Program – KR 12, 2009.  
Sidney J. Levy Teaching Award, Master of Management Program 2001-2002.  
Outstanding Professor Award, Executive Masters' Program - 46, 2000.  
Outstanding Professor Award, Executive Masters' Program - 44, 2000.  
Sidney J. Levy Teaching Award, Master of Management Program 1998-1999.  
Outstanding Professor Award, Executive Masters' Program - 38, 1998.  
Outstanding Professor Award, Executive Masters' Program - 35, 1997.  
Outstanding Professor Award, Executive Masters' Program - 32, 1996.  
State Farm Companies Foundation Business Doctoral Dissertation Awards Selection Committee 1996-07.  
Peat Marwick and Mitchell Research Grant (jointly with Ross Watts), 1987.  
Notable Contribution to Accounting Literature Award Screening Committee 1987-88.  
Beatrice Foods Research Chair 1984-85.  
Ernst & Whinney Research Fellow 1983-84.

## **CHAired DISSERTATION COMMITTEES, DATE of COMPLETION, and FIRST PLACEMENT**

Jingjing Zang (Accounting), in progress  
Liang Tan (Accounting), in progress  
Rafael Rogo (Accounting), in progress  
Dora Altschuler (Accounting), 2011, Loyola University Chicago  
Ewa Sletten (Accounting), 2007, Massachusetts Institute of Technology  
Peter Hostak (Accounting), 2006, University of Massachusetts at Dartmouth  
Yong (George) Yang (Accounting), 2006, The Chinese University of Hong Kong  
Aiyasha Dey (Accounting), 2005, University of Chicago  
Xiaohui (Gloria) Liu (Accounting), 2004, University of Houston  
Daniel Cohen, (Accounting), 2004, University of Southern California  
Nuri Emre Karaoglu, (Accounting), 2003, University of Southern California  
Elizabeth Eccher (Accounting), 1996, Massachusetts Institute of Technology  
John Jacob (Accounting), 1995, University of Colorado, Denver  
Marguerite Bishop (Accounting), 1995, New York University  
Linda Vincent (Accounting), 1994, University of Chicago  
Sungkyu Sohn, (Accounting), 1992, CUNY, Baruch College

## **DISSERTATION COMMITTEES, DATE of COMPLETION, and FIRST PLACEMENT**

Ann Beyer (Accounting), 2006, Stanford University  
Thomas Fields (Accounting), 2004, Harvard University  
Yan (Rock) Gao (Finance), 2002  
Xiaoquin Hu (Finance), 2002, University of Illinois, Chicago  
Stephen Brown (Accounting), 2000, Emory  
Kin Lo (Accounting), 1999, University of British Columbia  
Rita Czaja, 1995 (Accounting), Michigan State University  
Jowell Sabino (Accounting), 1994, University of Pennsylvania  
Susan Wolcott (Accounting), 1993, University of Denver  
Byong Ho Kim (Accounting), 1992, Kook-min University, Seoul, Korea  
Billy Soo, 1991 (Accounting), Boston College  
Naveen Khanna (Finance), 1986, University of Michigan, Ann Arbor  
Paula Koch, 1989 (Accounting), University of Illinois, Chicago  
Young Ho Lee (Finance), 1989, Hanwha Group, Seoul, Korea

## **SERVICE AT KELLOGG**

Personnel Committee 2001-2005; 2009-2011;  
Chair Ph.D. Committee, Department of Accounting and Information Systems (1990-96);  
Chair Recruiting Committee, Department of Accounting and Information Systems 1993-95 and 2002-06;  
Research Computing Committee, Kellogg Graduate School of Management 1989-present, Chair 1989-92.

**INVITED TALKS AND PRESENTATIONS** (last ten years)

- 2010-11 University of British Columbia
- 2009-10 *Journal of Accounting and Economics* Conference  
Stanford Summer Camp
- 2008-09 University of Washington at Seattle,  
Massachusetts Institute of Technology
- 2007-08 Washington University Conference  
Accounting Symposium, London Business School
- 2006-07 *Journal of Accounting Research* Conference  
Pennsylvania State University,  
*Journal of Accounting and Economics* Conference (Discussant)  
University of Oklahoma Research Conference, featured speaker  
Hong Kong University of Science and Technology Summer Symposium on Accounting  
Research featured speaker  
Harvard University, 2007 Information, Markets, and Organizations Conference
- 2005-06 Leventhal School of Accounting, University of Southern California  
Columbia School of Business, Columbia University
- 2004-05 *Journal of Accounting and Economics* Conference (Discussant)  
Jerusalem School of Business Administration, Hebrew University  
American Accounting Association Annual Meeting, Orlando, Florida  
Olin School of Business, Washington University Corporate Governance Conference
- 2003-04 Massachusetts Institute of Technology  
University of Colorado at Bolder  
Georgetown University  
Harvard University  
London Business School
- 2002-03 *Journal of Accounting and Economics* Conference (Discussant)
- 2001-02 London Business School.  
*Journal of Accounting and Economics* Conference
- 2000-01 Simon School of Business, University of Rochester  
College of Business, University of Missouri-Columbia  
Leon Recanati Graduate School of Business Administration, Tel Aviv University  
Jerusalem School of Business Administration, Hebrew University  
New York University: Journal of Accounting Auditing and Finance–KPMG Conference.
- 1999-00 American Accounting Association Annual Meeting, San Diego  
A.B. Freeman School of Business, Tulane University  
Michael F. Price College of Business, University of Oklahoma

## EXPERT WITNESS ASSIGNMENTS

Engagements last four years

- Testifying expert for defendant in John Hancock Life Insurance Company v. Commissioner of Internal Revenue, United States Tax Court, Docket No.: 007084-10.
- Testifying expert for Plaintiff in United States of America, v. Suntrust Bank, as personal representative of the estate of Ralph W. Hughes, The United States District Court Middle District of Florida, Tampa Division, Case No. 8:09-CV-01443-EAK-AEP.
- Testifying expert for defendant in Hulley Enterprises Limited v. The Russian Federation; Yukos Universal Limited v. The Russian Federation; and Veteran Petroleum Limited v. The Russian Federation, in the arbitrations pursuant to the rules of the United Nations Commission on International Trade Law, Permanent Court of Arbitration, Cases Nos. AA226/AA227/AA228
- Testifying expert for defendant Potash Corporation of Saskatchewan Inc., v. BHP Billiton Ltd., BHP Billiton Plc and BHP Billiton Development 2 (Canada) Ltd., United States District Court for the Northern District of Illinois, Eastern Division Civil Action No. 1:10-CV-06024.
- Testifying expert for defendant in Santa Clara Valley Housing Group, Inc and Kristen M. Bowes, v. United States of America, United States District Court Northern District of California, Complaint for Refund of Internal Revenue Taxes, Case No. C08 05097.
- Testifying expert for defendants in Napoleon Perdis Cosmetics, Inc. v Sephora USA, Inc.; and does 1-50, Superior Court Of The State of California, County of Los Angeles, Central District; Case No.: Bc391382.
- Testifying expert for plaintiff in Advanced Micro Devices, Inc., and AMD International Sales & Service, Ltd., v Intel Corporation, and Intel Kabushiki Kaisha, United States District Court for the District Of Delaware, Civil Action No. 05-441.
- Testifying expert for plaintiff in Ventas, Inc., v.HCP, INC., United States Court for the Western District of Kentucky at Louisville; Civil Action No. 3:07-cv-238-H.
- Testifying expert for plaintiff in Moet Hennessy SNC v. Phillips Beverage Company, in the arbitration before the American Arbitration Association under the International Dispute Resolution Procedures.
- Testifying expert for defendant in Wells Fargo & Company and Subsidiaries v. United States of America, United States Court of Federal Claims, Fed. Cl. No. 1:06-CV-628.
- Testifying expert for plaintiff in IMO Industries Inc., v. Transamerica Corporation, et al., Superior Court of New Jersey Law Division: Mercer County Docket No. L-2 140-03.
- Testifying expert for plaintiff in Richard G. Tatum v. R. J. R. Reynolds Tobacco Company, et al., United States District Court for the Middle District of North Carolina, No. 1:02-CV-00373.



## **Curriculum Vitae – Thomas Z. Lys**

- Testifying expert for defendant in AWG Leasing Trust, et al., v. United States of America, United States District Court for the Northern District of Ohio, No. 1:07-CV-0857.
- Testifying expert for plaintiffs in Enron Corp., et al., v. Citigroup Inc., et al., United States Bankruptcy Court Southern District of New York, adversary proceeding No. 03-09266 (AJG).
- Testifying expert for plaintiffs in Allocco, et al. v. Gardner, et al., Superior Court of The State of California, County of San Diego, No. GIC 806450.
- Testifying expert for plaintiffs, Robert Reese Bains, et al., v. John J. Moores, et al., Superior Court of The State of California, County of San Diego, No. GIC 806212.

Attachment 1  
Sirius XM  
Adjusted Total Revenue by Segment  
2008 - 2011



Attachment 1  
Sirius XM  
Adjusted Total Revenue by Segment  
2008 - 2011

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Notes:

- [1] Historical data are "pro forma" or "adjusted" as defined by Sirius XM. Adjusted revenue figures include the effect of purchase price accounting adjustments associated with the merger. Figures for 2008 include adjustments for "Predecessor Financial Information." See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 35, 50-52. Revenue in 2011 is calculated using "pro forma" projections for Q4 2011 as reported by Morgan Stanley, which are assumed to be in millions. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 11 and 18.
- [2] For the nine months ending September 30, 2011, Sirius XM generated \$2,239,737,000 in adjusted total revenue, consisting of \$1,926,430,000 in Subscriber Revenue, \$48,392,000 in Equipment Revenue, \$53,595,000 in Advertising Revenue, and \$211,320,000 in Other Revenue. See Sirius XM Radio Inc., Form 10-Q for the fiscal quarter ended September 30, 2011, p. 43.
- Sirius XM provides the following explanations of revenue segments (see Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 27-28):
- [3] "Subscriber Revenue includes subscription fees, activation and other fees and the effects of rebates."
- [4] "Advertising Revenue includes the sale of advertising on our non-music channels, net of agency fees. Agency fees are based on a contractual percentage of the gross advertising billing revenue."
- [5] "Equipment Revenue includes revenue and royalties from the sale of satellite radios, components and accessories."
- [6] "Other Revenue includes the U.S. Music Royalty Fee, revenue from affiliates, content licensing fees and syndication fees."

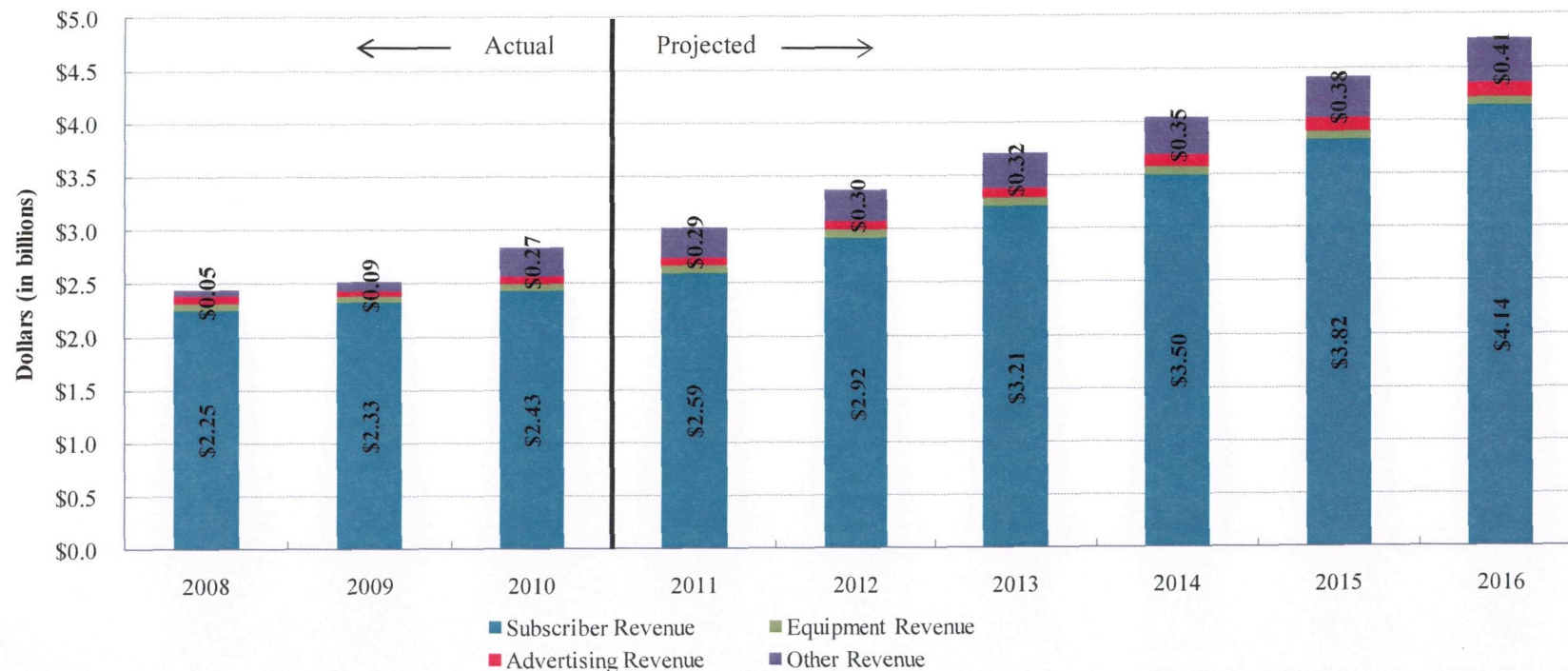
Attachment 2  
 Sirius XM  
 Analyst Projections of Total Revenue  
 2011 - 2015



Notes:

- [1] Analyst projections, excluding those from Morgan Stanley, are as reported by Thomson ONE. Projections from "Undisclosed" sources are excluded from this analysis.
- [2] Revenue projections reported by Morgan Stanley are "pro forma." See Swinburne, Benjamin and Ryan Fital, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, p. 16.
- [3] The calculated mean is the straight average of reported projections.

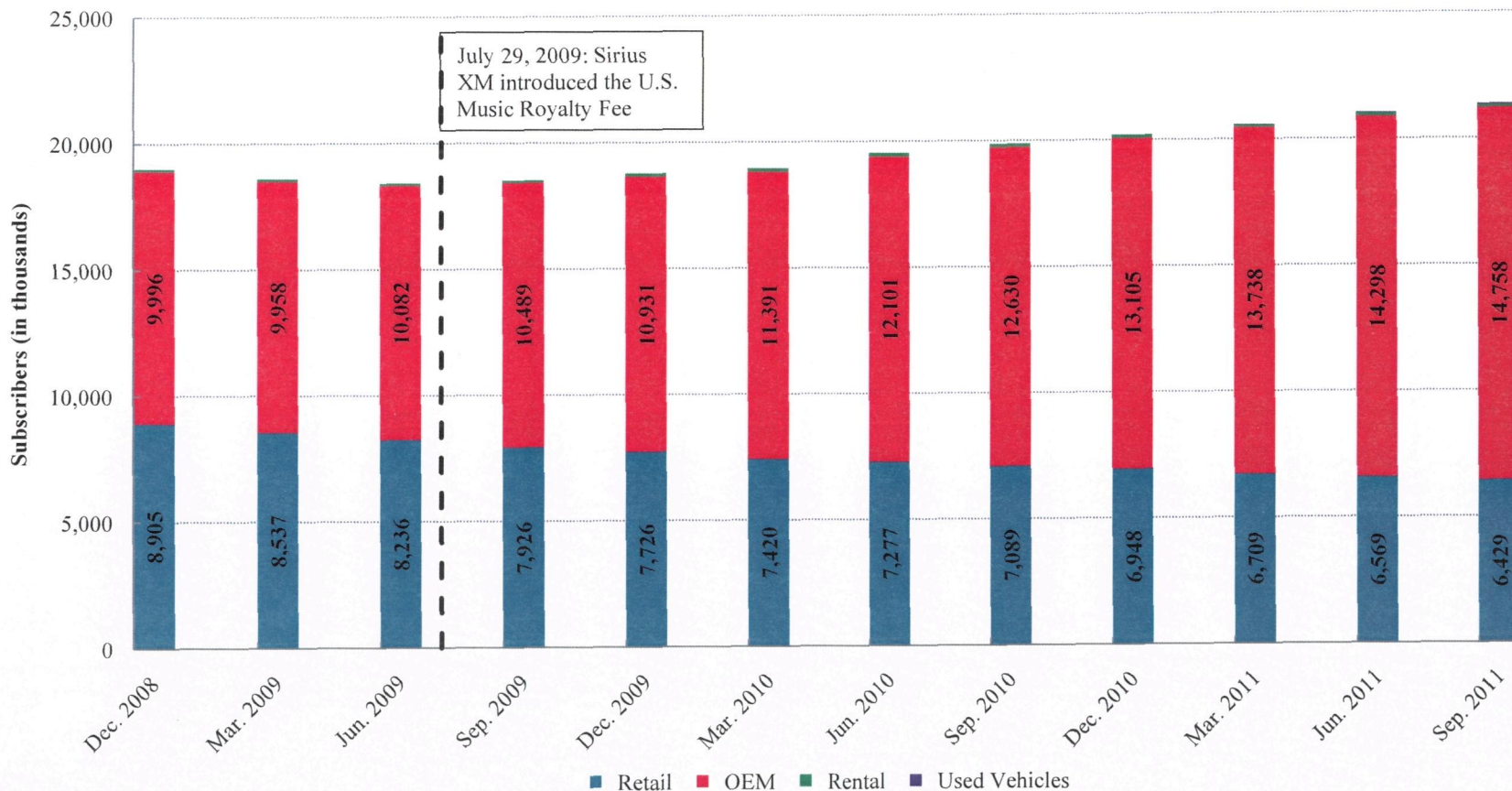
**Attachment 3**  
**Sirius XM**  
**Total Pro Forma Revenue by Segment**  
**2008 - 2016**



## Notes:

- [1] Revenue data are "pro forma" as reported by Morgan Stanley. Morgan Stanley figures are assumed to be in millions. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 10 and 16.
- [2] 2011 Total Revenue reflects actual results through September 30, 2011 plus Morgan Stanley's pro forma projections for Q4 2011. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 11 and 16.
- [3] Morgan Stanley and Sirius XM report revenue for the same four segments: Subscriber Revenue, Equipment Revenue, Advertising Revenue, and Other Revenue. However, reported figures and their itemized designations may differ slightly between the Morgan Stanley report and Sirius XM's SEC filings due to rounding differences. Additionally, in 2008 and 2009, Morgan Stanley reports slightly less Subscriber Revenue and slightly more Other Revenue than reported by Sirius XM.
- Sirius XM provides the following explanations of revenue segments (see Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 27-28):
- [4] "Subscriber Revenue includes subscription fees, activation and other fees and the effects of rebates."
- [5] "Equipment Revenue includes revenue and royalties from the sale of satellite radios, components and accessories."
- [6] "Advertising Revenue includes the sale of advertising on non-music channels, net of agency fees. Agency fees are based on a contractual percentage of the gross advertising billing revenue." Morgan Stanley reports Advertising Revenue as, "Advertising, net of commissions." See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, p. 10.
- [7] "Other Revenue includes the U.S. Music Royalty Fee, revenue from affiliates, content licensing fees and syndication fees."

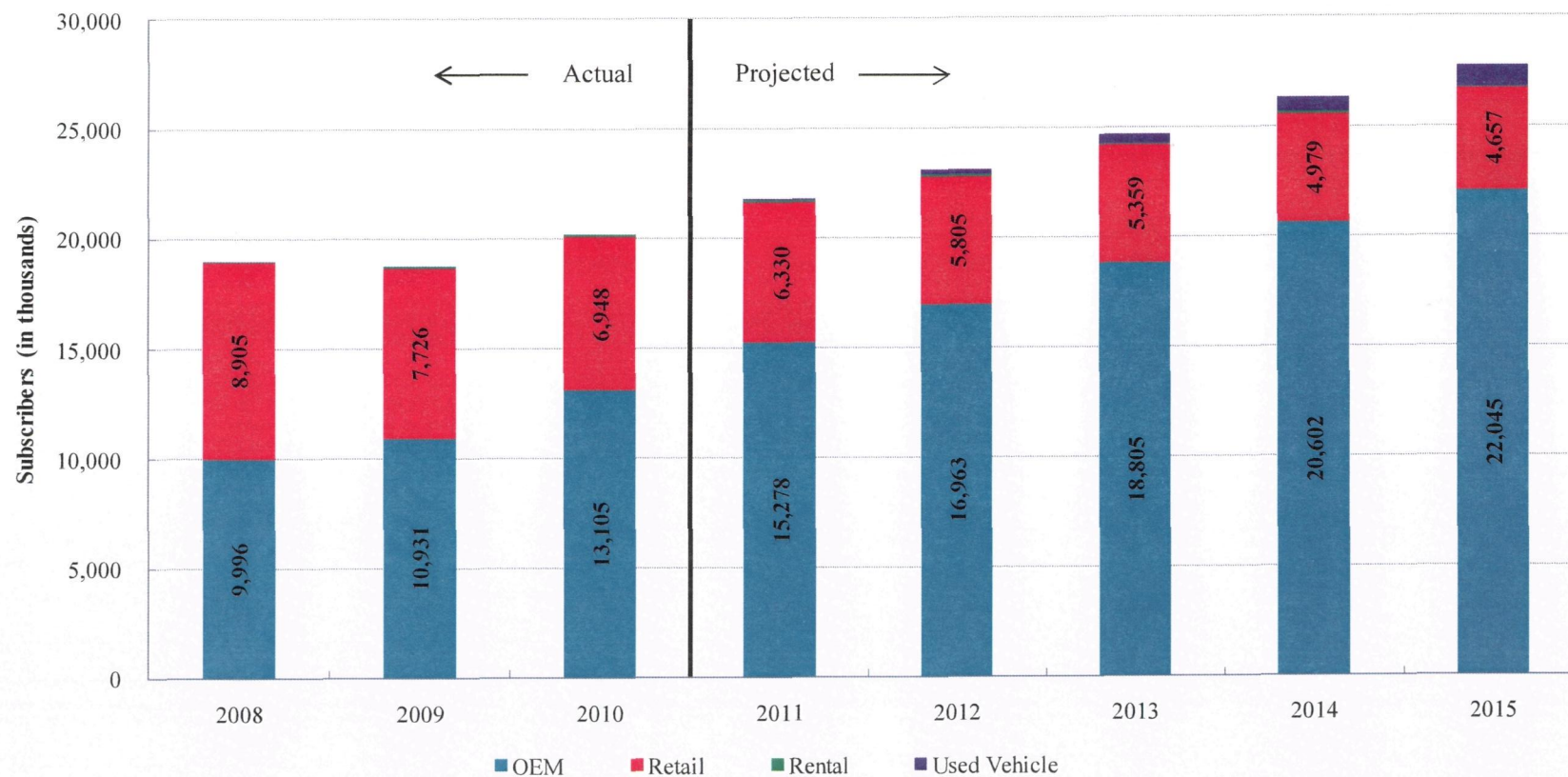
Attachment 4  
 Sirius XM  
 Quarter-End Number of Subscribers by Source  
 Q4 2008 - Q3 2011



Notes:

- [1] From the quarter ending December 31, 2008 through the quarter ending December 31, 2010, subscriber numbers are as reported by Bloomberg, L.P. Subscriber numbers in 2011 are as reported by Morgan Stanley. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, p.13
- [2] Sirius XM reports three sources of subscriptions: "Retail," "OEM," and "Rental." See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 34. Morgan Stanley reports three sources of subscriptions: "Aftermarket," "OEM," and "Rental Car." Beginning in Q1 2011, Morgan Stanley reports a fourth category of subscriptions, "Used Vehicles."
- [3] As of October 27, 2011, Sirius XM reported on its website that "[e]ffective July 29, 2009, a U.S. Music Royalty Fee has been added to subscriber invoices." See "U.S. Music Royalty Fee," available at <http://www.siriusxm.com/usmusicroyalty>, accessed October 27, 2011.

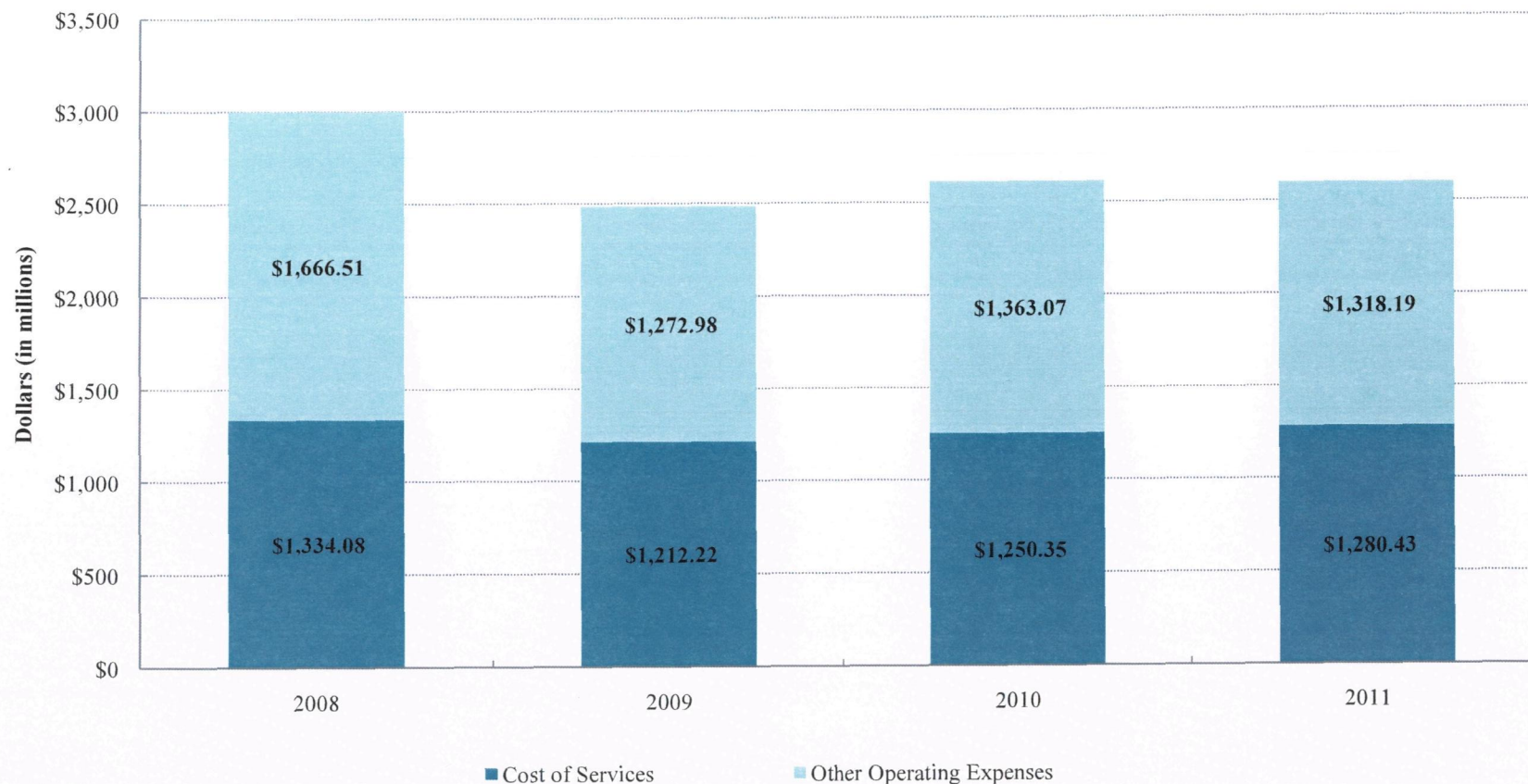
**Attachment 5**  
**Sirius XM**  
**Year-End Number of Subscribers by Source**  
**2008 - 2015**



Notes:

- [1] Year-end subscribers are as reported by Morgan Stanley. Morgan Stanley reports three sources of subscriptions: "Aftermarket," "OEM," and "Rental Car." Beginning in Q1 2011, Morgan Stanley reports a fourth category of subscriptions, "Used Vehicles." See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 12 and 13.
- [2] Sirius XM reports three sources of subscriptions: "Retail," "OEM," and "Rental." See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p.34.
- [3] As of September 30, 2011, Sirius XM's 21,350,000 total subscribers consisted of: 14,758,000 OEM subscribers; 6,429,000 Retail subscribers; 122,000 Rental subscribers; and 41,000 Used Vehicle subscribers. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, p. 13.

**Attachment 6**  
**Sirius XM**  
**Adjusted Total Operating Expenses**  
**2008 - 2011**

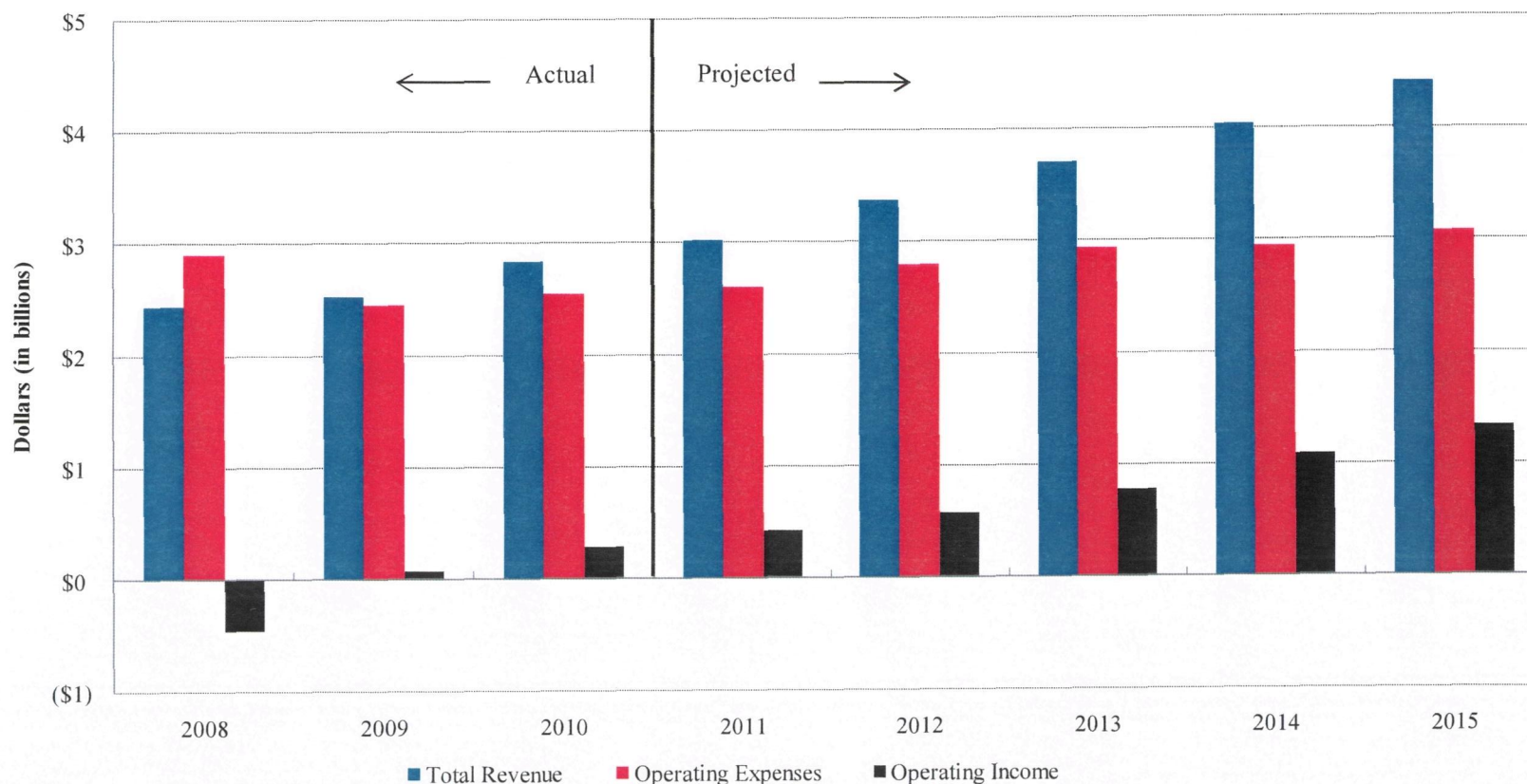


Notes:

- [1] Historical data are "pro forma" or "adjusted," as defined by Sirius XM. Adjusted figures include the effects of purchase price accounting adjustments associated with the merger and re-allocate share-based payment expenses. Figures for 2008 include adjustments for "Predecessor Financial Information." See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 35 and 50-52, and Sirius XM Radio Inc., Form 10-Q for the fiscal quarter ended September 30, 2011, p. 43. Annual 2011 figures are calculated using "pro forma" projections for Q4 2011 as reported by Morgan Stanley, which are assumed to be in millions. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," Morgan Stanley, November 3, 2011, pp. 11 and 18.
- [2] Adjusted Total Operating Expenses are calculated as the sum of "Costs of Services" and "Other Operating Expenses." "Costs of Services," as calculated by Sirius XM, are the sum of "Revenue share and royalties," "Programming and content," "Customer service and billing," "Satellite and transmission," and "Cost of equipment." "Other Operating Expenses" are calculated as the sum of "Subscriber acquisition costs," "Sales and marketing," "Engineering, design, and development," "General and administrative," "Depreciation and amortization," "Restructurings, impairments and related costs," and "Share-based payment expense."



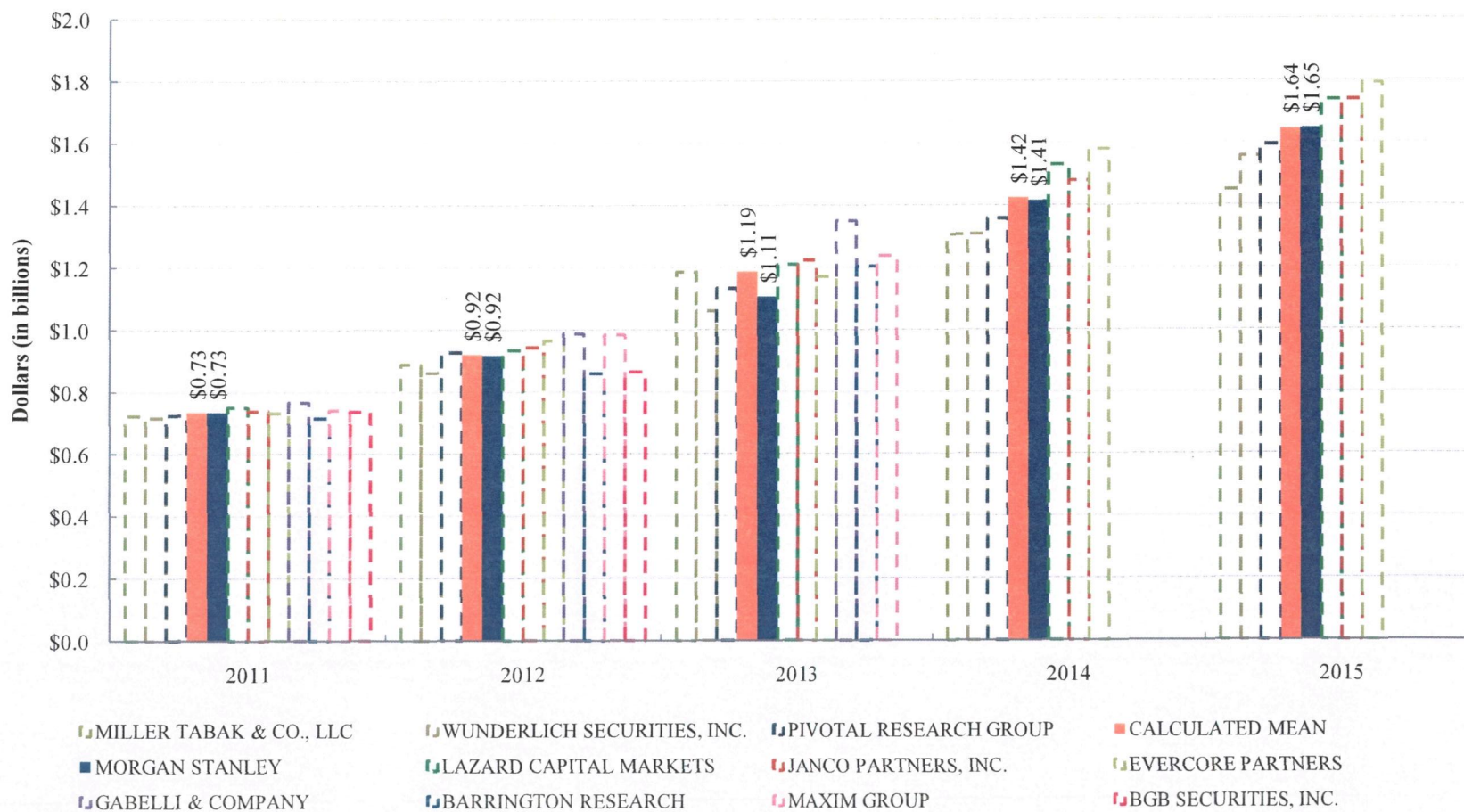
**Attachment 7**  
**Sirius XM**  
**Annual Operating Income**  
**2008 - 2015**



Notes:

- [1] Data are "pro forma," as reported by Morgan Stanley. These data correspond directly to adjusted total revenue and adjusted operating expenses reported by Sirius XM. However, reported figures and their itemized designations may differ slightly between the Morgan Stanley report and Sirius XM's SEC filings due to rounding differences. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 10, 16 and 18. See also, Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, pp. 50 and 52.
- [2] Operating Expenses are the sum of "Cost of Revenue," "Total SG&A," "Equity Granted to Third Parties & SBC," "Depreciation" and "Amortization," as reported by Morgan Stanley. For 2008, Morgan Stanley reports \$118.8 million in "Equity Granted to Third Parties & SBC," whereas Sirius XM reports a corresponding operating expense of \$124.619 million.
- [3] Operating Income is calculated as the difference between Total Revenue and Operating Expenses.
- [4] For the nine-month period ending September 30, 2011, Morgan Stanley reported Total Revenue and Operating Expenses of \$2,239,700,000 and \$1,914,600,000, respectively.

Attachment 8  
 Sirius XM  
 Analyst Projections of EBITDA  
 2011 - 2015



Notes:

- [1] Analyst projections, excluding those from Morgan Stanley, are as reported by Thomson ONE. Projections from "Undisclosed" sources are excluded from this analysis.
- [2] EBITDA projections from Morgan Stanley are "Adjusted (as defined by SIRI)," which are "pro forma." For the nine-month period ending September 30, 2011, Morgan Stanley reports EBITDA as \$563,800,000. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 16 and 18.
- [3] The calculated mean is the straight average of reported projections.

Attachment 9  
Sirius XM  
Historical and Projected Sirius XM EBITDA and Free Cash Flow  
Performance with Sirius XM Paying a 12 Percent Royalty Rate in 2013, 14 Percent in 2014, 16 Percent in 2015, 18 Percent in 2016, and 20 Percent in 2017  
Assuming Sirius XM Completely Absorbs the Increase in Royalty Rate (Zero Percent of the Royalty Increase Passed Through to Customers)  
Royalties Paid on 100 Percent of Revenue (Figures in \$ Millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Projected and Historical Total Revenue	\$2,436.7	\$2,526.7	\$2,838.9	\$3,021.5	\$3,372.4	\$3,709.0	\$4,039.2	\$4,408.4	\$4,771.5	\$5,000.5
Additional Revenue from U.S. Music Royalty Passthrough	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Projected and Historical Cost of Revenue	\$1,334.1	\$1,211.8	\$1,250.3	\$1,280.5	\$1,385.1	\$1,476.4	\$1,438.6	\$1,542.1	\$1,630.4	\$1,708.7
Additional Cost of Revenue from 2013 Rate Change	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$148.4	\$242.4	\$352.7	\$477.2	\$600.1
Projected and Historical EBITDA	-\$136.3	\$462.5	\$626.3	\$734.7	\$917.4	\$1,107.3	\$1,414.9	\$1,646.4	\$1,886.7	\$1,977.3
Net Adjustments from Change in Royalty Rate	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	-\$148.4	-\$242.4	-\$352.7	-\$477.2	-\$600.1
<b>EBITDA Incorporating Updated 2013-2017 Royalty Rate</b>	<b>-\$136.3</b>	<b>\$462.5</b>	<b>\$626.3</b>	<b>\$734.7</b>	<b>\$917.4</b>	<b>\$958.9</b>	<b>\$1,172.5</b>	<b>\$1,293.7</b>	<b>\$1,409.6</b>	<b>\$1,377.2</b>
Projected and Historical Free Cash Flow to Equity ("FCFE")	Not Included	\$185.9	\$192.9	\$359.1	\$741.6	\$873.4	\$1,123.4	\$1,279.4	\$1,391.2	\$1,458.0
Net Adjustments from Change in Royalty Rate	Not Included	\$0.0	\$0.0	\$0.0	\$0.0	-\$148.4	-\$242.4	-\$352.7	-\$477.2	-\$600.1
<b>FCFE Incorporating Updated 2013-2017 Royalty Rate</b>	<b>Not Included</b>	<b>\$185.9</b>	<b>\$192.9</b>	<b>\$359.1</b>	<b>\$741.6</b>	<b>\$725.0</b>	<b>\$881.0</b>	<b>\$926.7</b>	<b>\$914.1</b>	<b>\$857.9</b>

Notes:

- [1] Historical figures and forecasts for 2008 through 2016 were obtained from the November 3, 2011 Morgan Stanley Report. Projected and Historical EBITDA is reported as "Operating Cash Flow (EBITDA) -Pre SBC" in the Morgan Stanley report. Projected and Historical Free Cash Flow to Equity ("FCFE") was reported as "Pre-SBC Free Cash Flow" in the report. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 9 and 10.
- [2] Forecasts for 2017 are calculated under the following assumptions: i) revenues and free cash flow grow at the same rate as the economy as a whole (year-over-year percentage increase in nominal GDP as projected by the United States Congressional Budget Office) in 2017, and ii) the costs of revenue and EBITDA as percentages of revenue remain unchanged from the 2016 levels forecasted by Morgan Stanley. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: An Update," August 2011, p. 72.
- [3] I assume that the Morgan Stanley report dated November 3, 2011 incorporated an eight percent royalty rate in the years 2013 through 2016.
- [4] I assume that 100 percent of revenues are subject to royalty payments to SoundExchange in the years 2013 through 2017.
- [5] This analysis incorporates zero additional revenue from the U.S. Music Royalty Fee. Sufficient data for this computation are not currently available. Additional revenue will increase the EBITDA and FCFE at Sirius XM.
- [6] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM. Any tax savings generated by the increased royalty rate will increase EBITDA and FCFE at Sirius XM.

**Attachment 10 [RESTRICTED]**  
**Sirius XM**  
**Historical and Projected Sirius XM EBITDA and Free Cash Flow**  
**Performance with Sirius XM Paying a 12 Percent Royalty Rate in 2013, 14 Percent in 2014, 16 Percent in 2015, 18 Percent in 2016, and 20 Percent in 2017**  
**Assuming Sirius XM Completely Absorbs the Increase in Royalty Rate (Zero Percent of the Royalty Increase Passed Through to Customers)**  
**Royalties Paid on [REDACTED] Percent of Revenue (Figures in \$ Millions)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Projected and Historical Total Revenue	\$2,436.7	\$2,526.7	\$2,838.9	\$3,021.5	\$3,372.4	\$3,709.0	\$4,039.2	\$4,408.4	\$4,771.5	\$5,000.5
Additional Revenue from U.S. Music Royalty Passthrough	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Projected and Historical Cost of Revenue	\$1,334.1	\$1,211.8	\$1,250.3	\$1,280.5	\$1,385.1	\$1,476.4	\$1,438.6	\$1,542.1	\$1,630.4	\$1,708.7
Additional Cost of Revenue from 2013 Rate Change	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0					
Projected and Historical EBITDA	-\$136.3	\$462.5	\$626.3	\$734.7	\$917.4	\$1,107.3	\$1,414.9	\$1,646.4	\$1,886.7	\$1,977.3
Net Adjustments from Change in Royalty Rate	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0					
<b>EBITDA Incorporating Updated 2013-2017 Royalty Rate</b>	<b>-\$136.3</b>	<b>\$462.5</b>	<b>\$626.3</b>	<b>\$734.7</b>	<b>\$917.4</b>					
Projected and Historical Free Cash Flow to Equity ("FCFE")	Not Included	\$185.9	\$192.9	\$359.1	\$741.6	\$873.4	\$1,123.4	\$1,279.4	\$1,391.2	\$1,458.0
Net Adjustments from Change in Royalty Rate	Not Included	\$0.0	\$0.0	\$0.0	\$0.0					
<b>FCFE Incorporating Updated 2013-2017 Royalty Rate</b>	<b>Not Included</b>	<b>\$185.9</b>	<b>\$192.9</b>	<b>\$359.1</b>	<b>\$741.6</b>					

Notes:

- [1] Historical figures and forecasts for 2008 through 2016 were obtained from the November 3, 2011 Morgan Stanley Report. Projected and Historical EBITDA is reported as "Operating Cash Flow (EBITDA) -Pre SBC" in the Morgan Stanley report. Projected and Historical Free Cash Flow to Equity ("FCFE") was reported as "Pre-SBC Free Cash Flow" in the report. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 9 and 10.
- [2] Forecasts for 2017 are calculated under the following assumptions: i) revenues and free cash flow grow at the same rate as the economy as a whole (year-over-year percentage increase in nominal GDP as projected by the United States Congressional Budget Office) in 2017; and ii) the costs of revenue and EBITDA as percentages of revenue remain unchanged from the 2016 levels forecasted by Morgan Stanley. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: An Update," August 2011, p. 72.
- [3] I assume that the Morgan Stanley report dated November 3, 2011 incorporated an eight percent royalty rate in the years 2013 through 2016.
- [4] I assume that [REDACTED] percent of revenues are subject to royalty payments to SoundExchange for the years 2013 through 2017.
- [5] This analysis incorporates zero additional revenue from the U.S. Music Royalty Fee. Sufficient data for this computation are not currently available. Additional revenue will increase the EBITDA and FCFE at Sirius XM.
- [6] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM. Any tax savings generated by the increased royalty rate will increase EBITDA and FCFE at Sirius XM.

**Attachment 11**  
**Sirius XM and Moody's Baa Index**  
**Yield To Maturity of Publicly-Traded Debt**  
**July 2008 - November 2011**



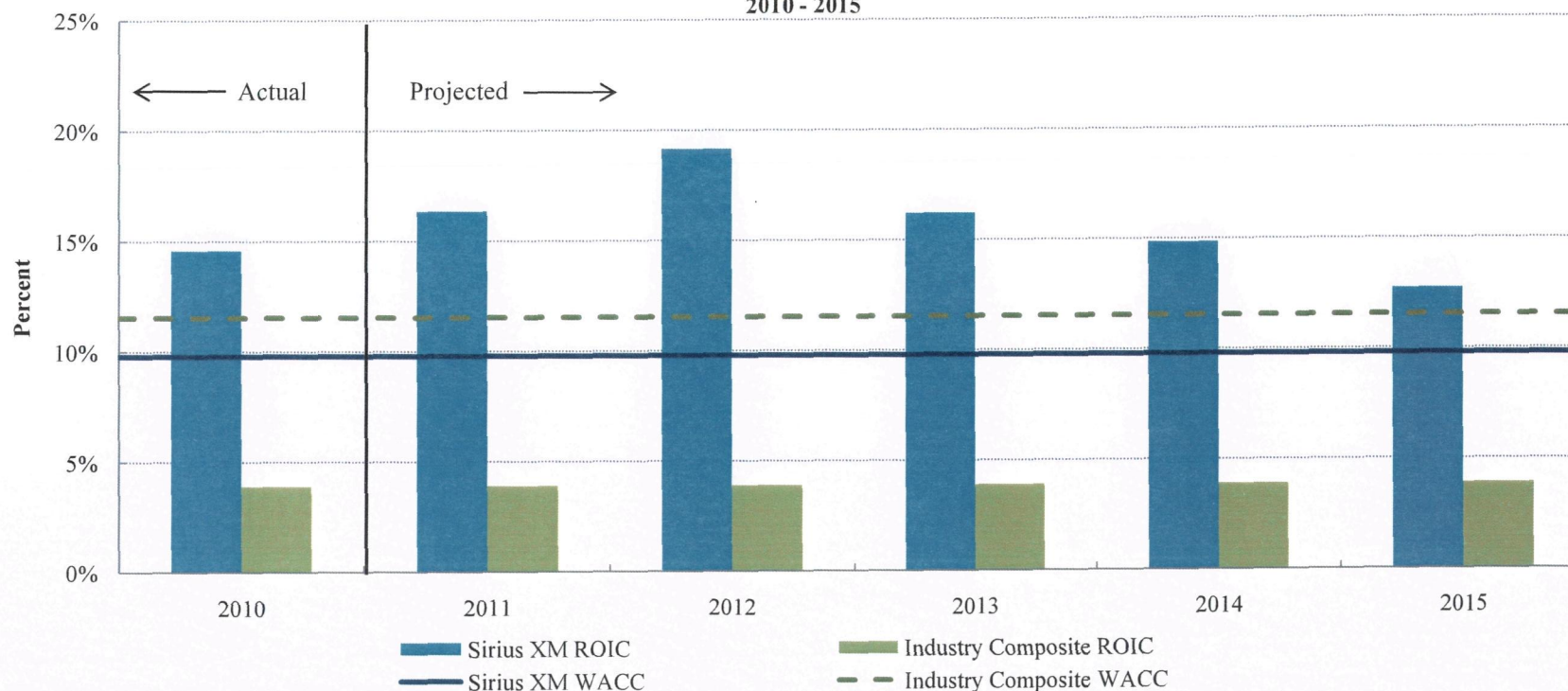
ISIN Identifiers of Sirius XM Bonds and Name of Moody's Index

- |                |                              |                                      |
|----------------|------------------------------|--------------------------------------|
| — US98375NAA81 | — US98375YAU01 (Convertible) | — US82967NAA63                       |
| — US82967NAD03 | — US98375YAZ97               | — Moody's Corporate Bonds Index: Baa |

Notes:

- [1] Corporate bonds are listed by ISIN number. The five bonds presented constitute Sirius XM's publicly traded series 144A debt, excluding those that have matured or that have been called. All bonds have fixed-rate coupons. Apart from the convertible bond, each of the bonds listed above is callable. US82967NAA63 and US82967NAD03 were issued by Sirius XM Radio Inc. The others were issued by XM Satellite Radio Inc. See Bloomberg, L.P.
- [2] Moody's Baa Corporate Bonds Index is as reported by the Federal Reserve Board. See "Moody's Yield On Seasoned Corporate Bonds - All Industries, Baa," available at <http://www.federalreserve.gov/releases/h15/data.htm#fn15>, accessed November 20, 2011.
- [3] The measure of yield used for this exhibit is defined by Bloomberg as: "The yield of a bond calculated to maturity (Mid)." See Bloomberg, L.P.
- [4] If no trades occur on a given day, the yield for the date of the most recent trade is carried forward.

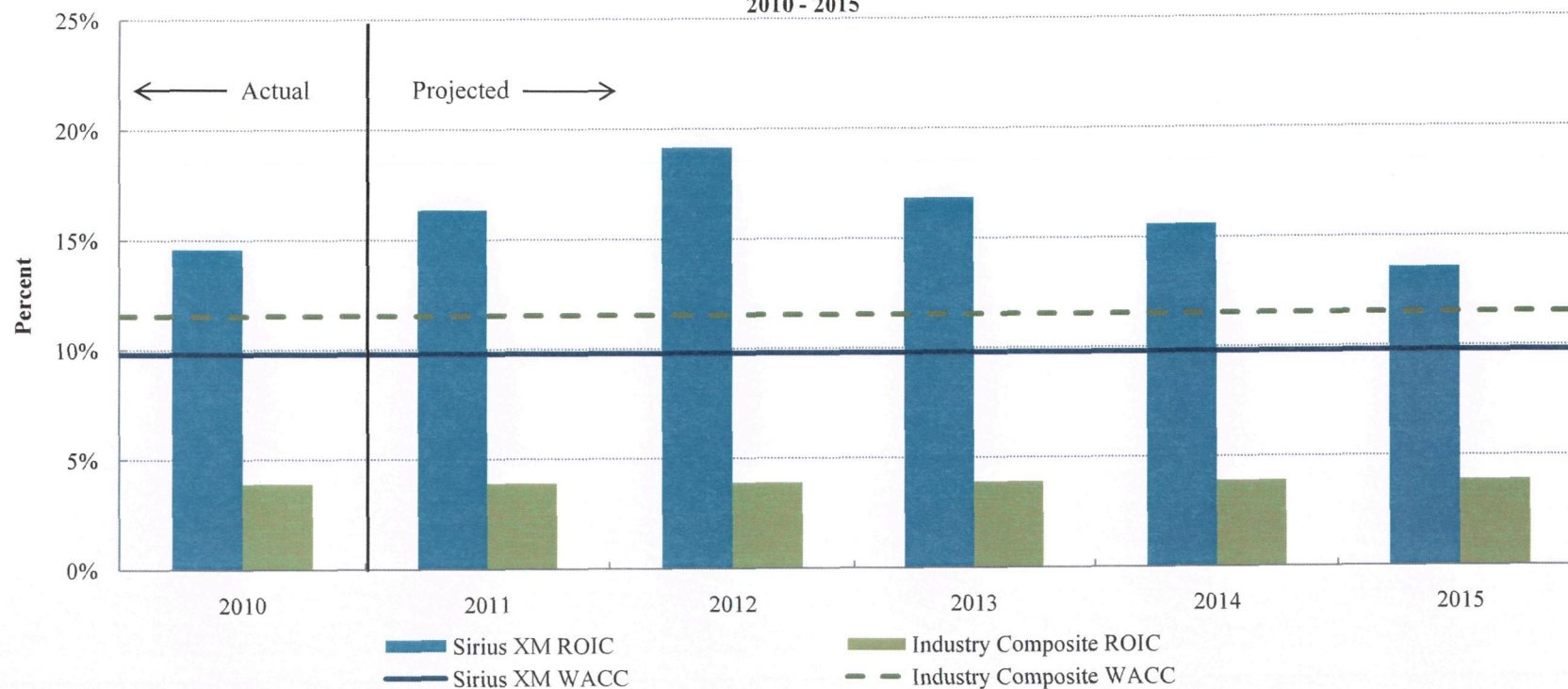
**Attachment 12**  
**Sirius XM and Industry**  
**Return on Invested Capital (ROIC) and Weighted Average Cost of Capital (WACC)**  
**Proposed Rates Paid on 100 Percent of Revenue**  
**2010 - 2015**



Notes:

- [1] Ibbotson defines return on invested capital (ROIC) as income before extraordinary items (IBEI) divided by total invested capital (TIC). I divide IBEI by the average of TIC for the current and prior year. IBEI is defined as "the income of a company after all expenses, including special items, income taxes, and minority interest, but before provisions for common and/or preferred stock." TIC is defined as book debt (BD) plus book value of equity (BVE). BD is the sum of book value of debt in current liabilities (STD), book value of long-term debt (LTD), and book value of preferred stock (PSTK). See "Industry Module Methodology," 2011 Ibbotson Cost of Capital Yearbook, Morningstar.
- [2] Sirius XM's ROIC for 2010 is based on actual pro forma data. Sirius XM's ROIC figures for 2011 through 2015 are based on Morgan Stanley's projections. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 16 and 19.
- [3] Sirius XM WACC is as of November 20, 2011, using a 3 percent effective tax rate. I also considered Sirius XM's WACC with a zero percent effective tax rate; the results were not materially different. See Bloomberg, L.P.
- [4] Industry composite values are based on twenty-one companies in SIC 483 as of September 30, 2011 and include Sirius XM. Composite ROIC is 3.90 percent and composite WACC is 11.54 percent. See "SIC 483," Ibbotson, Morningstar, September 30, 2011.

**Attachment 13 [RESTRICTED]**  
**Sirius XM and Industry**  
**Return on Invested Capital (ROIC) and Weighted Average Cost of Capital (WACC)**  
**Proposed Rates Paid on ■ Percent of Revenue**  
**2010 - 2015**



**Notes:**

- [1] Ibbotson defines return on invested capital (ROIC) as income before extraordinary items (IBEI) divided by total invested capital (TIC). I divide IBEI by the average of TIC for the current and prior year. IBEI is defined as "the income of a company after all expenses, including special items, income taxes, and minority interest, but before provisions for common and/or preferred stock." TIC is defined as book debt (BD) plus book value of equity (BVE). BD is the sum of book value of debt in current liabilities (STD), book value of long-term debt (LTD), and book value of preferred stock (PSTK). See "Industry Module Methodology," 2011 Ibbotson Cost of Capital Yearbook, Morningstar.
- [2] Sirius XM's ROIC for 2010 is based on actual pro forma data. Sirius XM's ROIC figures for 2011 through 2015 are based on Morgan Stanley's projections. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 16 and 19.
- [3] Sirius XM WACC is as of November 20, 2011, using a 3 percent effective tax rate. I also considered Sirius XM's WACC with a zero percent effective tax rate; the results were not materially different. See Bloomberg, L.P.
- [4] Industry composite values are based on twenty-one companies in SIC 483 as of September 30, 2011 and include Sirius XM. Composite ROIC is 3.90 percent and composite WACC is 11.54 percent. See "SIC 483," Ibbotson, Morningstar, September 30, 2011.

**Before the  
UNITED STATES COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

In the Matter of:

Determination of Rates and Terms for  
Preexisting Subscription Services and  
Satellite Digital Audio Radio Services

Docket No. 2011-1  
CRB PSS/Satellite II

**TESTIMONY OF**

**J. GREGORY SIDAK**

**Chairman, Criterion Economics, L.L.C. and Ronald Coase Professor of Law and  
Economics, Tilburg Institute for Law and Economics, Tilburg University**

**Witness for SoundExchange, Inc.**





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## INTRODUCTION AND EXECUTIVE SUMMARY

1. I have been asked by counsel for SoundExchange to evaluate competition within the audio entertainment industry and other factors affecting Sirius XM, with a particular focus on Sirius XM's ability to pay the rates proposed by SoundExchange and whether those rates would have a disruptive impact on Sirius XM's operations. In the prior royalty rate proceeding, the Copyright Royalty Judges (CRJs) determined the zone of reasonable royalty rates.<sup>1</sup> The CRJs determined that "an immediate increase to the upper boundary" of that zone that was "most strongly indicated by marketplace data" "would be disruptive," and that a "rate within the zone of reasonableness that is less than" the upper bound was warranted.<sup>2</sup> To avoid any disruptive impact, the CRJs established rates beginning at 6 percent with increases during the rate term to 8 percent. It is my opinion that, given Sirius XM's improved financial performance and its advantageous position among distributors of audio entertainment, Sirius XM has, and will have, the ability to pay, without any disruptive impact to its operations, the royalty rates that SoundExchange is proposing for the period 2013 to 2017.

2. Under section 801(b)(1) of the Copyright Act, the CRJs have the authority to establish "reasonable terms and rates of royalty payments" for preexisting satellite digital audio radio services (SDARS).<sup>3</sup> That rate "shall be calculated"<sup>4</sup> to achieve the following four objectives:

- (A) To maximize the availability of creative works to the public.
- (B) To afford the copyright owner a fair return for his or her creative work and the copyright user a fair income under existing economic conditions.
- (C) To reflect the relative roles of the copyright owner and the copyright user in the product made available to the public with respect to relative creative contribution,

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1. Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, Final Rule and Order, 73 Fed. Reg. 4080, 4097-98 (Jan. 24, 2008) [hereinafter CRJ 2008 Final Rule and Order].

2. *Id.* at 4097.

3. 17 U.S.C. § 801(b)(1).

4. *Id.*

- technological contribution, capital investment, cost, risk, and contribution to the opening of new markets for creative expression and media for their communication.
- (D) To minimize any disruptive impact on the structure of the industries involved and on generally prevailing industry practices.<sup>5</sup>

My analysis focuses primarily on whether paying a higher, market-derived royalty rate within the zone of reasonableness would ensure Sirius XM a fair income under existing economic conditions and minimize any disruptive impact to the provision of SDARS to subscribers, based on the competitive and other risks that Sirius XM could face in the next license period.

3. In Part I, I explain how the Sirius-XM merger in 2008 enhanced Sirius XM's ability to pay a higher royalty and still earn a "fair income." Sirius XM became the only provider of SDARS through the merger. The fact that the Federal Communications Commission (FCC) approved the merger with conditions, including price caps on subscriptions, indicates that the agency believed that Sirius XM could exercise market power absent such conditions. However, once the price caps expire at the end of 2011,<sup>6</sup> Sirius XM will be able to charge higher subscription prices. Economic evidence implies that consumers have a price-inelastic demand for SDARS, such that Sirius XM could raise prices profitably in the absence of a legal or regulatory constraint. Also because of the merger, Sirius XM has achieved efficiencies that have lowered Sirius XM's costs and further enhanced its profits. Significant barriers to entry will protect Sirius XM's supracompetitive profits from 2013 to 2017. Consequently, Sirius XM will be able to pay SoundExchange's proposed rates.

4. In Part II, I analyze the extent to which Sirius XM is subject to macroeconomic risk, and whether that risk has risen or fallen since 2008. The low volatility and consistent

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5. *Id.*

6. *See* Blessing v. Sirius XM Radio Inc., 2011 WL 3739024, No. 09 CV 10035(HB), 2011-2 Trade Cas. ¶ 77,579 (S.D.N.Y. Aug. 24, 2011).

growth in Sirius XM's subscribership that have occurred while real household income has fallen indicate that Sirius XM's subscribership is remarkably impervious to macroeconomic adversity.

5. In Part III, I examine the risks that Sirius XM believes it will face in the next license period. Sirius XM has indicated in public filings that it may face risk related to increasing competition from other forms of audio entertainment, the integrity of its satellites (technological risk), and adverse developments in regulations or law. However, Sirius XM has significant competitive advantages over other delivery platforms for audio entertainment. Consequently, from 2013 to 2017, the entry or growth of other delivery platforms for audio entertainment is unlikely to reduce Sirius XM's subscribership or significantly constrain its prices. Furthermore, as the sole FCC licensee to provide SDARS, Sirius XM faces little legal or regulatory risk. Finally, because Sirius XM will have completed the launch and deployment of its satellite infrastructure before the start of the next license period, Sirius XM will face considerably less technological risk from 2013 to 2017 than it will have faced from 2007 to 2012.

6. In Part IV, I explain why payment by Sirius XM of a higher, market-determined royalty would not disrupt the SDARS industry. In my opinion, a rate would clearly disrupt the SDARS industry if it forced Sirius XM to cease operating. However, the rates that SoundExchange proposes would not begin to approach that level.

7. My current curriculum vitae is attached as Appendix I to this report. The opinions contained here are based on my education, my experience, and the information I have reviewed. A list of documents that I relied upon in forming my opinions is attached as Appendix II. I have relied upon only publicly available information. I reserve the right to amend my testimony if additional information becomes available in discovery.

## QUALIFICATIONS

8. My name is J. Gregory Sidak. I am the chairman of Criterion Economics, L.L.C. in Washington, D.C. I am also the Ronald Coase Professor of Law and Economics at Tilburg University in The Netherlands and a founding co-editor of the *Journal of Competition Law & Economics*, published quarterly by the Oxford University Press.

9. I have worked at the intersection of law and economics for three decades. I earned A.B. (1977) and A.M. (1981) degrees in economics and a J.D. (1981), all from Stanford University. I was a member of the *Stanford Law Review*. I have served in the federal government on three occasions. In 1981, I became Judge Richard A. Posner's first law clerk on the U.S. Court of Appeals for the Seventh Circuit. From 1986 to 1987, I was Senior Counsel and Economist to the Council of Economic Advisers (CEA) in the Executive Office of the President. There, my responsibilities involved drafting portions of the *Economic Report of the President*, including President Ronald Reagan's introduction to the 1987 *Report*. I represented the CEA in working group meetings of the Economic Policy Council concerning regulatory, antitrust, and intellectual property policy. From 1987 to 1989, I was Deputy General Counsel of the Federal Communications Commission.

10. From 1992 through 2005, I was a resident scholar at the American Enterprise Institute for Public Policy Research (AEI), where I held the F.K. Weyerhaeuser Chair in Law and Economics. At AEI, I directed a large research initiative on telecommunications regulation that produced scores of academic conferences and publications. From 1993 to 1999, while at AEI, I was also a Senior Lecturer at the Yale School of Management, where I taught a course with Dean Paul W. MacAvoy on regulation and competitive strategy to graduate management students. From 2005 to 2007, I was a Visiting Professor of Law at Georgetown University Law Center,

where I taught courses on telecommunications regulation and antitrust law. Early in my career, I worked as a management consultant with the Boston Consulting Group.

11. Over the past thirty years, I have published six books and more than eighty articles in scholarly journals. My scholarly writings have been downloaded more than 50,000 times from the Social Science Research Network and have appeared in such journals as the *Journal of Political Economy*, the *Yale Journal on Regulation*, the *Review of Industrial Organization*, the *American Economic Association Papers & Proceedings*, *Contributions in Economic Policy Research*, *World Competition*, *Review of Network Economics*, *Industrial and Corporate Change*, the *Journal of Network Industries*, the *Columbia Law Review*, the *Stanford Law Review*, the *University of Chicago Law Review*, and the *Yale Law Journal*. Courts and regulatory commissions that have cited my writings include the Supreme Court of the United States, the Supreme Court of Canada, the European Commission, the U.S. Court of Appeals for the D.C. Circuit, the Federal Communications Commission, and various state supreme courts. I have testified before Congress on multiple occasions concerning economic aspects of regulation in the telecommunications industry and other network industries.

12. My essays have appeared in newspapers and business periodicals, including the *New York Times* and the *Wall Street Journal*. I have been interviewed and quoted by newspapers, magazines, and news organizations, including the *Asahi Shimbun*, the BBC, Bloomberg, *The Daily Telegraph*, *The Economist*, Fox News, *Forbes*, *La Reforma* (Mexico City), the *Los Angeles Times*, the Mainichi newspapers, MSNBC, *The News Hour with Jim Lehrer*, the *Nihon Keizai Shimbun* (the *Nikkei*), NPR's *All Things Considered*, the *Sankei Shimbun*, and the *Wall Street Journal*.



13. As an economic consultant, I have served clients in North America, Europe, Asia, and the Pacific. My clients in telecommunications, media, and technology have included América Móvil, AT&T, Bell Atlantic, Bell Canada, BellSouth, The Bermuda Telephone Company, BT plc, Cable & Wireless, Canwest Global Communications, Comsat, Corning, CTIA—The Wireless Association, Deutsche Telekom, eircom, GTE, Hitachi, Koninklijke KPN N.V., Matsushita, Microsoft, National Association of Broadcasters, Newspaper Association of America, Nichia, Nippon Telegraph & Telephone, NTT DoCoMo, Panasonic, Portugal Telecom, Qualcomm, Qwest, The Republic of México, SBC, Telecom Corporation of New Zealand, Teléfonos de México, Telstra, TiVo, U.S. Telecom Association, Verizon, Verizon Wireless, Vodafone, VSNL (the Tata Group), and The Walt Disney Company. I have worked with many respected law firms in antitrust, regulatory, and intellectual property matters.<sup>7</sup>

14. My consulting engagements have addressed economic questions concerning antitrust, patents and intellectual property, network industries (telecommunications, the Internet, electricity, natural gas, transportation, and postal delivery), international trade, entertainment and sports, mass media, public utility regulation, spectrum auctions and policy, state-owned enterprises, breach of contract, covenants not to compete, securities fraud, complex commercial litigation, damages, injunctive relief, and constitutional protection of private property and economic activity.

15. On behalf of clients, I have filed numerous expert reports with the Federal Communications Commission concerning antitrust and regulatory issues affecting operators of satellite services. In the proposed merger of the two direct broadcast satellite providers, DirecTV

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7. They include Allen & Overy, Arent Fox, Arnold & Porter, Bennett Jones, Foley Hoag, Gibson Dunn & Crutcher, Herbert Smith, Howrey, Hunton & Williams, Irell & Manella, Kellogg Huber, Kirkland & Ellis, Latham & Watkins, Linklaters, Malleson Stephen Jacques, Morgan Lewis, Morrison & Foerster, Nelson Mullins, Paul Weiss, Sidley Austin, Sullivan & Cromwell, Tucker Ellis & West, Vinson & Elkins, Weil, Gotshal & Manges, Wiley Rein, and WilmerHale.

and EchoStar (DISH), I filed three reports on behalf of the National Association of Broadcasters concerning the anticompetitive consequences of the merger.<sup>8</sup> In the Sirius-XM satellite merger, I filed five reports on the anticompetitive consequences of the merger<sup>9</sup> and made presentations to the Assistant Attorney General and the chief economist of the Antitrust Division of the U.S. Department of Justice, as well as presentations to all Commissioners of the FCC. On behalf of the Communications Satellite Corporation (COMSAT), I submitted expert reports containing economic and competitive analysis relevant to the constitutionality of the FCC's proposal to mandate Level 3 direct access to space segment capacity on the INTELSAT global satellite system.<sup>10</sup> I have provided expert economic testimony on behalf of Disney in a contractual dispute with DISH concerning its distribution of entertainment programming by direct broadcast satellite.<sup>11</sup> I have also filed various expert reports concerning spectrum policy, spectrum auctions, and competition in wireless communications.<sup>12</sup> I have extensive experience in the

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8. Application of EchoStar Communications Corporation, General Motors Corporation, Hughes Electronics Corporation, Transferors, and EchoStar Communications Corporation, Transferee, For Authority to Transfer Control, Federal Communications Commission, CS Dkt. No. 01-348

9. Applications for Consent to the Transfer of Control of Licenses of XM Satellite Radio Holdings Inc., Transferor, To Sirius Satellite Radio Inc., Transferee, Federal Communications Commission, MB Dkt. 07-57.

10. Notice of Proposed Rulemaking, Federal Communications Commission, IB Dkt. No. 98-192.

11. Deposition of J. Gregory Sidak, *EchoStar Satellite L.L.C. v. ESPN, Inc., et al.*, Index No. 08-600282, Supreme Court of New York, County of New York (July 29, 2011) (on behalf of ESPN and other Disney companies) (subject to protective order).

12. See, e.g., *The Static and Dynamic Inefficiency of Abandoning Unrestricted Auctions for Spectrum: A Critique of Professor Wilkie's Analysis of the M2Z Proposal* (July 2008), co-authored with Robert W. Hahn, Allan T. Ingraham & Hal J. Singer (commissioned by CTIA); *Is State Taxation of the Wireless Industry Counterproductive?* (prepared for Verizon Wireless Apr. 2, 2003); *The Economic Benefits of Permitting Winning Bidders to Opt Out of Auction 35* (prepared for Verizon Communications, Aug. 26, 2002); *Letter Concerning Spectrum Auction 35 to the Honorable Michael K. Powell, Chairman, Federal Communications Commission*, from Peter C. Cramton, Robert W. Crandall, Robert W. Hahn, Robert G. Harris, Jerry A. Hausman, Thomas W. Hazlett, Douglas G. Lichtman, Paul W. MacAvoy, Paul R. Milgrom, Richard Schmalensee, J. Gregory Sidak, Hal J. Singer, Vernon L. Smith, William Taylor, and David J. Teece (Aug. 16, 2002); *Declaration of J. Gregory Sidak on behalf of Deutsche Telekom AG*, In the Matter of VoiceStream Wireless Corporation and Powertel, Inc., Transferors, and Deutsche Telekom AG, Transferee, Federal Communications Commission, IB Dkt. No. 00-187 (filed Jan. 8, 2001); *Declaration of J. Gregory Sidak and David J. Teece on behalf of GTE Corporation in 1998 Biennial Regulatory Review of Spectrum Aggregation Limits for Wireless Telecommunications Carriers*, Cellular Telecommunications Industry Association's Petition for Forbearance From the 45 MHz CMRS Spectrum Cap, Amendment of Parts 20 and 24 of the Commission's Rules of Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap Implementation of Sections 3(n) and 332 of the

pricing of compulsory access to private property—including patent royalties, the pricing of competitor access to unbundled elements of incumbent telecommunications networks, public utility rate making, and just compensation for government takings of property.

16. In addition to having performed consulting engagements of this nature, I served from 2002 to 2006 as a member of the U.S. Advisory Board for NTT DoCoMo, Japan’s largest wireless telecommunications company. In that capacity, I briefed DoCoMo’s chairman semiannually on the economic implications of emerging regulatory and antitrust trends.

**I. THE MERGER’S ECONOMIC BENEFITS TO SIRIUS XM ENABLE IT TO PAY A HIGHER ROYALTY RATE FROM 2013 TO 2017 AND STILL EARN A “FAIR INCOME”**

17. In the 2008 proceeding, the CRJs reasoned that “[a]ffording [the SDARS] a fair income is not the same thing as guaranteeing them a profit in excess of the fair expectations of a highly leveraged enterprise. Nor is a fair income one which allows the SDARS to utilize its other resources inefficiently.”<sup>13</sup> The CRJs instead concluded that “a fair income is more consistent with reasonable market outcomes.”<sup>14</sup> Whether the royalty rate would diminish the SDARS’ ability to achieve profitability was deemed relevant only to the fourth statutory objective of section 801(b)(1), minimizing the “disruptive impact” of the royalty.<sup>15</sup> In 2008, Sirius and XM had “not shown that their income under existing economic conditions [wa]s unfairly constrained by adoption of a rate informed by the marketplace evidence[.]”<sup>16</sup>

18. In this rate proceeding, I consider whether paying higher, market-determined rates will unfairly constrain Sirius XM’s income, taking into consideration the benefits from its

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Communications Act Regulatory Treatment of Mobile Services, Notice of Proposed Rulemaking, Federal Communications Commission, WT Dkt. Nos. 98-205, 96-59, GN Dkt. No. 93-252 (filed Jan. 25, 1999).

13. CRJ 2008 Final Rule and Order, *supra* note 1, at 4095 (internal citations omitted).

14. *Id.*

15. *Id.*

16. *Id.*

merger and its competitive advantage relative to other technologies for music delivery. A higher royalty rate within the zone of reasonableness would still allow Sirius XM a “fair income” for purposes of section 801(b)(1)(B). Due to the Sirius-XM merger, Sirius XM is the only provider of SDARS. It has market power—the ability to sustain supracompetitive profits. High entry barriers—including the absence of additional SDARS spectrum—will shield Sirius XM from competition and increase its ability to pay a higher royalty rate from 2013 to 2017.

**A. Sirius XM Has Become the Sole SDARS Provider for the Foreseeable Future**

19. Before their 2008 merger, Sirius and XM were the only two providers of content over SDARS. The merger made Sirius XM the sole provider of SDARS. Sirius XM now can raise subscription prices for consumers above the pre-merger level, thereby reaping higher profits than Sirius’s and XM’s combined profits before the merger. Consequently, Sirius XM will have a greater ability to pay sound recording royalties than Sirius and XM together had before the merger, holding other factors constant.

**1. The FCC Approved the Merger with Conditions**

20. The FCC approved the Sirius-XM merger with specific conditions to prevent anticompetitive harm from the merger. Most notably, the FCC required that Sirius XM cap its subscription prices.<sup>17</sup> Thus, the FCC’s approval presumed that the merged Sirius XM would acquire market power and, in the absence of price caps, increase its profits by raising prices. This increased market power lowers Sirius XM’s expected competitive risk for the period from 2013 to 2017 compared with the period from 2007 to 2012 that Sirius and XM faced in late 2007 and early 2008 (when the CRJs last set the SDARS’ royalty rates).

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17. Applications for Consent to the Transfer of Control of Licenses, XM Satellite Radio Holdings Inc. to Sirius Satellite Radio Inc., Memorandum Opinion and Order and Report and Order, 23 F.C.C.R. 12,348, 12,394-95 ¶¶ 107-08 (2008) [hereinafter FCC 2008 Merger Approval Memorandum Opinion and Order].

## 2. Sirius XM Has Exploited Its Post-Merger Market Power to Raise Prices

21. When Sirius and XM filed their merger application in March 2007, they each offered one package for \$12.95 per month.<sup>18</sup> Since its 2008 merger, Sirius XM has raised subscription prices for a number of its packages. Sirius XM's demonstrated ability to raise prices is economic evidence that Sirius XM's pricing is not constrained by competition.

22. One finds evidence of price increases by Sirius XM in the record in *Blessing v. Sirius XM Radio Inc.*<sup>19</sup> Sirius XM was the defendant in an antitrust class action lawsuit challenging the legality of its merger.<sup>20</sup> The case concerned numerous price increases that Sirius XM allegedly could not have imposed on consumers had the merger not occurred.<sup>21</sup> In particular, Sirius XM: (1) increased “the monthly charge per additional radio for multi-radio subscribers from \$6.99 per month to \$8.99;” (2) “initiat[ed] a \$2.99 monthly fee for [I]nternet streaming;” (3) charged a royalty fee “between 10% and 28%,” and (4) increased “various administrative fees.”<sup>22</sup> The price increase from \$6.99 to \$8.99 per month is an increase of 28.6 percent, which far exceeds the 2.62-percent increase in the consumer price index that occurred from July 2008 to July 2010.<sup>23</sup> These price increases are economic evidence that Sirius XM acquired market power through its merger and has exercised it.

23. *Blessing* reveals two factors that indicate Sirius XM's ability to pay higher royalties due to the merger. First, Sirius XM's increased market power enables it profitably to

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18. Consolidated Application for Authority to Transfer Control of XM Radio Inc. and Sirius Satellite Radio Inc., MB. Dkt. No. 07-57, at 10 (Mar. 20, 2007) [hereinafter 2007 Sirius-XM Consolidated Merger Application]. In November 2011, the subscription price for the “All Access” package, which includes all channels on a Sirius, XM, or Sirius XM radio and streaming Internet radio, was \$199 per year—or about \$16.58 per month.<sup>18</sup> Sirius XM, Our Most Popular Packages for Sirius XM, <http://www.siriusxm.com/ourmostpopularpackages-sxm> (last visited Nov. 22, 2011).

19. No. 09 CV 10035(HB), 2011 WL 1194707, 2011-1 Trade Cas. ¶ 77,468 (S.D.N.Y. Mar. 29, 2011).

20. *Id.* slip op. at \*1.

21. *Id.*

22. *Id.*

23. Bureau of Labor Statistics, Consumer Price Index – All Urban Consumers, *available at* <http://data.bls.gov/cgi-bin/surveymost> (last visited Nov. 22, 2011).

sustain a price above the previous level, which suggests that SDARS consumers have relatively price-inelastic demand for SDARS. Second, Sirius XM has the ability to pay a higher royalty by passing through increases in its music royalties to subscribers. Pass through of cost increases to consumers was an enumerated exception to the FCC’s subscription price caps,<sup>24</sup> and Sirius XM has indeed passed cost increases through to consumers in the form of a “Music Royalty Fee”—a monthly surcharge to any subscription that included significant music content.<sup>25</sup>

## **B. The Expiration of the Price Caps Will Enable Sirius XM to Increase Profits**

24. Sirius XM’s price caps will expire in December 2011. Sirius XM will be fully able to exploit its market power in the next license period, which it has not been able to do in the current license period. Furthermore, due to the merger, Sirius XM achieved costs savings, further enabling Sirius XM to increase profits.

### **1. The Price Caps Will Expire Before the Next License Period**

25. The FCC’s price caps on Sirius XM expired in July 2011,<sup>26</sup> and the agency declined to extend that condition.<sup>27</sup> In August 2011, the parties in *Blessing* reached a settlement, in which Sirius XM agreed to certain price caps through December 31, 2011.<sup>28</sup> The court said

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24. FCC 2008 Merger Approval Memorandum Opinion and Order, *supra* note 17, at 12,394 ¶ 107.

25. Letter from James S. Blitz, Vice President, Regulatory Counsel, Sirius XM Radio Inc., to Jacqueline Ellington, Esq., Spectrum Enforcement Division, Enforcement Bureau, Fed. Comm’ns Comm’n (May 12, 2010), Exhibit 72, *in* Motion for Summary Judgment, Declaration of James J. Sabella in Opposition, *Blessing v. Sirius XM Radio Inc.*, 1:09-cv-10035-HB –RLE, at 68-71 (filed May 16, 2011). It is a question of some debate and subtlety in economics how much of an increase in its marginal cost a firm can pass through to its customers in the form of a price increase. *See, e.g.*, Joseph Farrell & Carl Shapiro, *Recapture, Pass-through, and Market Definition*, 76 ANTITRUST L.J. 585 (2010); Morten Ravn, Stephanie Schmitt-Grohe & Martin Uribe, *Incomplete Pass-through Under Deep Habits* (Nat’l Bureau of Econ. Research, Working Paper No. 12961, 2007); Luke Froeb, Steven Tschantz & Gregory J. Werden, *Pass-through Rates and the Price Effects of Mergers*, 23 INT’L J. INDUS. ORG. 703 (2005). It is unnecessary to answer that theoretical question here. What matters is that there is actual evidence that Sirius XM raised subscription prices by an amount that it represented to be the increase in the marginal cost of licensing musical performances.

26. Applications for Consent to the Transfer of Control of Licenses, XM Satellite Radio Holdings Inc. to Sirius Satellite Radio Inc., Memorandum Opinion and Order, 26 F.C.C.R. 10,539 (2011).

27. *Id.*

28. *Blessing v. Sirius XM Radio Inc.*, No. 09 CV 10035(HB), 2011 WL 3739024, 2011-2 Trade Cas. ¶ 77,579 (S.D.N.Y. Aug. 24, 2011).

that “evidence demonstrate[d] that Sirius XM had every intention of raising prices beginning in August of [2011], and had the go-ahead from the FCC to do so.”<sup>29</sup> Notably, the settlement allows Sirius XM to increase prices in 2012, as it has already announced (raising the basic subscription price 12 percent from \$12.95 to \$14.49), one year before the next license period begins.

26. From 2013 to 2017, neither telecommunications law nor antitrust law will prevent Sirius XM from further increasing subscription prices. Sirius XM stands to earn supracompetitive profits from 2013 to 2017 that exceed the profits that Sirius XM could have earned in the current license period or that Sirius and XM could have earned individually absent the merger.

## **2. Sirius XM Can Increase Profits by Increasing Subscription Prices**

27. The sole supplier in a given market can extract higher profits than a firm that faces competition. When more than one firm occupies a market, firms compete with one another on price. Sirius XM has become the only firm in the SDARS market. By definition, the demand curve that a sole supplier faces is equal to the industry demand curve. In contrast, when more than one firm occupies a market, an individual firm’s demand curve is more elastic than is the overall industry demand curve. “More elastic” means that consumers are more sensitive to the firm’s price. If the sole supplier increases its price, consumers can choose only between paying the higher price and exiting the market altogether. In contrast, when multiple firms exist in a market, consumers can further choose from which firm to purchase a good. If one firm raises its price, consumers can switch to the other firm. Thus, demand at the firm level is more price-sensitive in the presence of competition.

28. Beginning in 2012, Sirius XM will be able, as the sole supplier of SDARS, to charge the unconstrained, profit-maximizing price for its service and consequently extract

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29. *Id.* at \*3.

supracompetitive profits. It is therefore reasonable to expect that, from 2013 to 2017, Sirius XM will have higher profits—and therefore will be able to pay higher royalties—than in the current license period, during which Sirius XM has been subject to the price caps that the FCC imposed and the *Blessing* settlement extended.

### **3. The Merger Reduced Sirius’s and XM’s Combined Costs**

29. The Sirius-XM merger generated operational efficiencies relative to the combined costs of Sirius and XM. When Sirius and XM applied for the FCC’s approval of the merger, they claimed that they would achieve efficiencies by reducing “duplicative staffing,” “operational expenses for the infrastructure used to broadcast and transmit satellite radio programming,” “marketing and subscriber acquisition costs,” and “duplicative research and development efforts,” among other things.<sup>30</sup> For example, fixed costs have fallen by roughly 31 percent (over \$285 million) since the close of the merger.<sup>31</sup> In addition, Sirius XM has significantly reduced its programming and content costs since the merger.<sup>32</sup>

### **4. Tobin’s $q$ for Sirius XM Implies an Ability to Exploit Market Power**

30. Tobin’s  $q$  is “the ratio of the market value of a firm to its value based on the replacement cost of its assets.”<sup>33</sup> Economists have documented the relationship between a high Tobin’s  $q$  and a firm’s ability to sustain supracompetitive profits as a result of long-run market

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30. FCC 2008 Merger Approval Memorandum Opinion and Order, *supra* note 17, at 12,391 ¶ 99.

31. Sirius XM Radio’s CEO Discusses Q3 2011 Results - Earnings Call Transcript, *available at* Seeking Alpha (Nov. 1, 2011), <http://seekingalpha.com/article/303987-sirius-xm-radio-s-ceo-discusses-q3-2011-results-earnings-call-transcript> (last visited Nov. 25, 2011) [hereinafter Sirius XM Q3 2011 Earnings Call].

32. *See, e.g.*, SIRIUS XM RADIO INC., 2010 ANNUAL REPORT (SEC FORM 10-K), at 5 (filed Feb. 16, 2011) (emphasis added) [hereinafter 2010 SIRIUS XM ANNUAL REPORT]; J. P. Mangalindan, *What Howard Stern’s \$400 Million Sirius Contract Means to the Street*, FORTUNE, Dec. 9, 2010, <http://money.cnn.com/2010/12/09/news/companies/Sirius-Stern-400-million.fortune/index.htm> (quoting Brett Harriss, Gabelli and Company).

33. DENNIS W. CARLTON & JEFFREY M. PERLOFF, MODERN INDUSTRIAL ORGANIZATION 239 (3d ed., Addison-Wesley 2000). *See also* James Tobin & William C. Brainard, *Asset Markets and the Cost of Capital*, in PRIVATE VALUES AND PUBLIC POLICY: ESSAYS IN HONOR OF WILLIAM FELLNER 235, 235 (North-Holland 1977); Michael A. Salinger, *Tobin’s  $q$ , Unionization, and the Concentration Profits Relationship*, 15 RAND J. ECON. 159, 159 (1984).



power.<sup>34</sup> Particularly, “for a competitive firm, one would expect  $q$  to be close to one, and as [one] examine[s] firms with increasing monopoly power (increasing ability to earn above a competitive return),  $q$  should increase”<sup>35</sup> above one.

31. Intuitively, the market value of a firm will equal the replacement value of the firm’s assets (that is, Tobin’s  $q$  will equal one) when the firm is earning enough to cover its opportunity cost of capital, but no more. Thus, a firm with a market value exceeding the replacement cost of its physical assets is earning economic profit, which can indicate the exercise of market power.<sup>36</sup> If the market has barriers to entry, the incumbent will be able to earn supracompetitive profits, such that its Tobin’s  $q$  will remain above one.

32. A simplified approximation for Tobin’s  $q$  is the firm’s market value divided by the firm’s equity book value.<sup>37</sup> This approximation assumes that the replacement cost of a firm’s assets equals the historical cost of its assets. The approximation has the formula:

$$\text{Tobin's } q \approx \frac{\text{Total Market Value of the Firm}}{\text{Total Asset Value}} = \frac{\text{Market Value of Equity} + \text{Book Value of Liabilities}}{\text{Book Value of Equity} + \text{Book Value of Liabilities}}.$$

I use the book values of Sirius XM’s equity and liabilities as of September 30, 2011, which are the most recently available quarterly data, and I calculated Sirius XM’s Tobin’s  $q$  as of November 14, 2011. Over the 45-day differential, it is unlikely that inflation and depreciation changed the replacement cost of Sirius XM’s assets significantly from the book value of its

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34. See, e.g., CARLTON & PERLOFF, *supra* note 33, at 695; Salinger, *supra* note 33, at 159; Michael Smirlock, Thomas Gilligan & William Marshall, *Tobin’s Q and the Structure-Performance Relationship*, 74 AM. ECON. REV. 1051, 1051 (1984); Eric B. Lindenberg & Stephen A. Ross, *Tobin’s q Ratio and Industrial Organization*, 54 J. BUS. 1, 2 (1981); Tobin & Brainard, *supra* note 33, at 243.

35. Lindenberg & Ross, *supra* note 34, at 2. See also THOMAS W. HAZLETT & MATTHEW L. SPITZER, PUBLIC POLICY TOWARD CABLE TELEVISION 21 (MIT Press 1997) (“An industry earning just competitive profits would be expected to demonstrate a  $q \approx 1$ .”).

36. See, e.g., Lindenberg & Ross, *supra* note 34, at 4.

37. See, e.g., Kee H. Chung & Stephen W. Pruitt, *A Simple Approximation of Tobin’s q*, 23 FIN. MGMT. 70, 71 (1994).

assets as reported in its quarterly report. Therefore, the above formula provides a reasonable approximation of Sirius XM's Tobin's  $q$  on November 14, 2011.

33. As of November 14, 2011, the market value of Sirius XM's equity, which is equal to its market capitalization, was \$6.3 billion.<sup>38</sup> According to Sirius XM's quarterly report for the period ending September 30, 2011, the book value of Sirius XM's liabilities as of that date was slightly more than \$6.7 billion.<sup>39</sup> The book value of Sirius XM's assets (which equals the book value of Sirius XM's equity plus the book value of Sirius XM's liabilities) at that time was slightly more than \$7.3 billion.<sup>40</sup> Using these figures, Tobin's  $q$  for Sirius XM is approximately:

$$q \approx \frac{\$6,709,825,000 + \$6,300,000,000}{\$7,324,837,000} = 1.78.$$

Sirius XM's Tobin's  $q$  of 1.78 exceeds the Tobin's  $q$  that economists would expect in a competitive market. This Tobin's  $q$  implies that the value of Sirius XM as a firm is almost twice what it would cost to replace all of Sirius XM's assets. This valuation of Sirius XM relative to Sirius XM's "book value" indicates that the capital market views Sirius XM as being able to sustain significant profitability in the long run.

34. I conduct an alternative—and more direct—calculation of Sirius XM's Tobin's  $q$  by estimating the replacement cost of Sirius XM's physical assets using information on Sirius XM's capital costs.<sup>41</sup> I show the calculation of the replacement cost in Appendix III. Table 1

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38. Google Finance, Sirius XM Radio Inc. (SIRI), Summary, <http://www.google.com/finance?q=siri> (last visited Nov. 14, 2011).

39. SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2011 (SEC FORM 10-Q), at 2 (filed Nov. 3, 2011) [hereinafter Q3 2011 SIRIUS XM QUARTERLY REPORT].

40. *Id.*

41. My estimation of the replacement cost assumes—for simplicity and to be conservative—that the costs of satellites is not falling significantly. However, there is some indication that the cost of satellite launches has fallen over time. See Elizabeth Montalbano, *DARPA Seeks Better Satellite Launch System*, INFORMATIONWEEK, Nov. 11, 2011, <http://informationweek.com/news/government/enterprise-architecture/231902870>; Peter B. Selding, *Space Forecast Predicts Satellite Production Boom*, SPACE NEWS, June 15, 2009, <http://www.space.com/6839-space->

shows the calculation of Sirius XM's Tobin's  $q$  given my estimate of Sirius XM's replacement cost. As of November 14, 2011, Sirius XM's market capitalization was \$6.3 billion.<sup>42</sup> The book value of Sirius XM's total liabilities as of September 30, 2011, was \$6.7 billion.<sup>43</sup>

TABLE 1: DIRECT ESTIMATION OF SIRIUS XM'S TOBIN'S  $q$

	<b>Lower Bound</b>	<b>Upper Bound</b>
Market Value + Book Liabilities	\$13,009,825,000	\$13,009,825,000
Replacement Cost	\$3,473,329,000	\$2,655,329,000
<b>Tobin's <math>q</math></b>	<b>3.75</b>	<b>4.90</b>

*Sources:* Adjustment of Rates and Terms for Preexisting Subscription and Satellite Digital Audio Radio Services, Written Direct Testimony of David J. Frear, Dkt. No. 2006-1 CRB DSTR, at 8-10 (Oct. 30, 2006); Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 2, 11.

Using these estimates of Sirius XM's replacement costs, I calculated Sirius XM's Tobin's  $q$  to range from 3.75 to 4.90. This high range of Tobin's  $q$  is economic evidence that the capital market believes that Sirius XM can sustain supracompetitive profits in the long run.

### C. Barriers to Entry Will Protect Sirius XM's Profits from 2013 to 2017

35. According to the Horizontal Merger Guidelines, a firm's entry into a market can constrain price only if "entry would be timely, likely, and sufficient in its magnitude, character, and scope to deter or counteract the competitive effects of concern."<sup>44</sup> Sirius XM benefits from multiple barriers to entry, including high sunk costs and the unavailability of additional SDARS spectrum. Such barriers to entry will likely continue to protect Sirius XM's supracompetitive profits for the period from 2013 through 2017.

forecast-predicts-satellite-production-boom.html; *India to Cut Satellite Launch Cost by Half*, INDIA EXPRESS, Apr. 4, 2010, <http://www.indianexpress.com/news/indiatocutsatellitelaunchcostbyhalf/599786/>.

42. Google Finance, Sirius XM Radio Inc. (SIRI), <http://www.google.com/finance?q=siri> (last visited Nov. 14, 2011).

43. Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 11.

44. U.S. DEPT. OF JUSTICE & FED. TRADE COMM'N, HORIZONTAL MERGER GUIDELINES, § 9.0 (2010).

36. The FCC licensed all the spectrum allocated for SDARS exclusively to XM and Sirius.<sup>45</sup> Spectrum is necessary for the uplink and downlink of content delivered by SDARS. No entry is possible unless the FCC releases more frequency bands. It is unreasonable to expect that prospect to be even remotely likely in the foreseeable future. Consequently, Sirius XM will not face price pressure from any SDARS entrant from 2013 to 2017.

## **II. SIRIUS XM IS RELATIVELY IMPERVIOUS TO MACROECONOMIC DOWNTURNS**

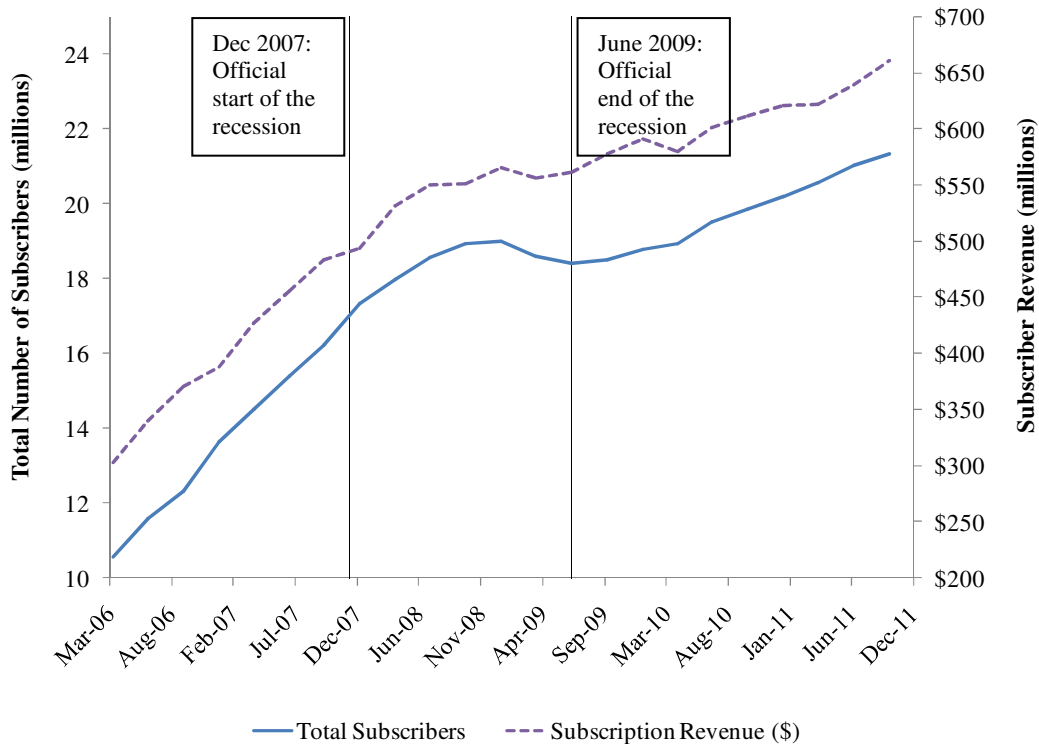
37. Sirius XM faces relatively low risk related to macroeconomic conditions. Sirius XM's subscriptions and subscription revenue experienced little volatility during the recession of December 2007 to June 2009,<sup>46</sup> and both metrics have continuously increased since mid-2009. Figure 1 shows Sirius XM's end-of-quarter total number of subscribers and subscription revenue, from March 2006 to September 2011. The vertical lines mark the recession's official start and end.

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45. Request For Further Comment on Selected Issues Regarding the Authorization of Satellite Digital Audio Radio Service Terrestrial Repeater Networks, Public Notice, DA 01-2570, 1 (Nov. 1, 2001), *available at* [http://www.fcc.gov/ftp/Bureaus/International/Public\\_Notices/2001/pnin1232.doc](http://www.fcc.gov/ftp/Bureaus/International/Public_Notices/2001/pnin1232.doc).

46. The official start and end of a recession are reported by the National Bureau of Economic Research. *See* National Bureau of Economics Research, U.S. Business Cycle Expansions and Contractions, <http://www.nber.org/cycles.html> (last visited Nov. 9, 2011).

FIGURE 1: SIRIUS XM'S TOTAL NUMBER OF END-OF-QUARTER SUBSCRIBERS AND SUBSCRIPTION REVENUES, MAR. 2006–SEPT. 2011



*Notes:* The subscriber numbers and subscription revenues are for the end of the three-month periods ending March 31, June 30, September 30, and December 31. The subscriber numbers from March 2006 to December 2007 are the combined subscriber numbers for Sirius and XM. The subscription revenues from March 2006 to September 2008 are the combined subscription revenues for Sirius and XM.

*Sources:* 2010 SIRIUS XM ANNUAL REPORT, *supra* note 32, at 26, 34; SIRIUS XM RADIO INC., 2009 ANNUAL REPORT (SEC FORM 10-K), at 27, 31 (filed Feb. 25, 2010); SIRIUS XM RADIO INC., 2008 ANNUAL REPORT (SEC FORM 10-K), at 34, 58 (filed Mar. 10, 2009); SIRIUS XM RADIO INC., 2007 ANNUAL REPORT (SEC FORM 10-K), at 29, 30 (filed Feb. 29, 2008); Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 1, 31; SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDING JUNE 30, 2011 (SEC FORM 10-Q), at 1, 30 (filed Aug. 4, 2011); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2011 (SEC FORM 10-Q), at 1, 30 (filed May 5, 2011); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2010 (SEC FORM 10-Q), at 1, 43 (filed Nov. 4, 2010); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2010 (SEC FORM 10-Q), at 1, 43 (filed Aug. 6, 2010); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2010 (SEC FORM 10-Q), at 1, 34 (filed May 7, 2010); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2009 (SEC FORM 10-Q), at 1, 38 (filed Nov. 5, 2009); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2009 (SEC FORM 10-Q), at 1, 41 (filed Aug. 6, 2009); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2009 (SEC FORM 10-Q), at 1, 37 (filed May 8, 2009); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2008 (SEC FORM 10-Q), at 1, 40 (filed Nov. 12, 2008); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2008 (SEC FORM 10-Q), at 1, 28 (filed Aug. 11, 2008); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2008 (SEC FORM 10-Q), at 1, 24 (filed May 12, 2008); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2007 (SEC FORM 10-Q), at 1, 24 (filed Nov. 1, 2007); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2007 (SEC FORM 10-Q), at 1, 25 (filed Aug. 9, 2007); SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2007 (SEC FORM 10-Q), at 1, 24 (filed May 10, 2007); XM SATELLITE RADIO INC., 2007 ANNUAL REPORT (SEC FORM 10-K), at 31, 36 (filed Feb. 28, 2008); XM SATELLITE RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2007 (SEC FORM 10-Q), at 3, 43 (filed Oct. 29, 2007); XM SATELLITE RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2007 (SEC FORM 10-Q), at 3, 43 (filed July 30, 2007); XM SATELLITE RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2007 (SEC FORM 10-Q), at 3, 32 (filed May 2, 2007).

38. The only decline in Sirius XM's subscribership was from the end of December 2008 to June 2009, during the last six months of the recession. One risk factor that Sirius XM disclosed in its 2010 annual report is general economic conditions:

The purchase of a satellite radio subscription is discretionary, and our business and our financial condition can be affected by adverse general economic conditions. For example, the dramatic slowdown in auto sales negatively impacted our subscriber growth in 2008 and 2009.<sup>47</sup>

However, Sirius XM's own management has recognized that the decrease in real income has not severely reduced Sirius XM's subscribership. During the recession, Sirius XM's subscribership fell from 19.0 million subscribers to 18.4 million subscribers—a loss of less than 3.2 percent. By February 2011, in Sirius XM's earnings call for its 2010 fiscal year, Mr. Frear said:

SiriusXM turned in a much better year than expected in the face of a slow improvement in the economy . . . . [U]nemployment remained high, job creation's low, housing values haven't improved much and consumer credit remains scarce. Nevertheless, in a clear demonstration of the strength of our subscriber based business model, SiriusXM delivered record results, solidly beating guidance we raised 3x in the course of the year, finishing a[t] 20.2 million subs, over \$2.8 billion in revenue, \$626 million in EBITDA and \$210 million in free cash flow.<sup>48</sup>

Figure 1 shows that Sirius XM's subscription revenue has increased at a slightly higher rate than the company's subscriptions. Subscription revenues increased by 117.9 percent from \$303.3 million in March 2006 to \$660.9 million in September 2011, while subscriptions increased by 101.8 percent from 10.6 million to 21.5 million. Sirius XM's increasing subscription revenues show that consumers are willing to pay for SDARS even during times of macroeconomic weakness.

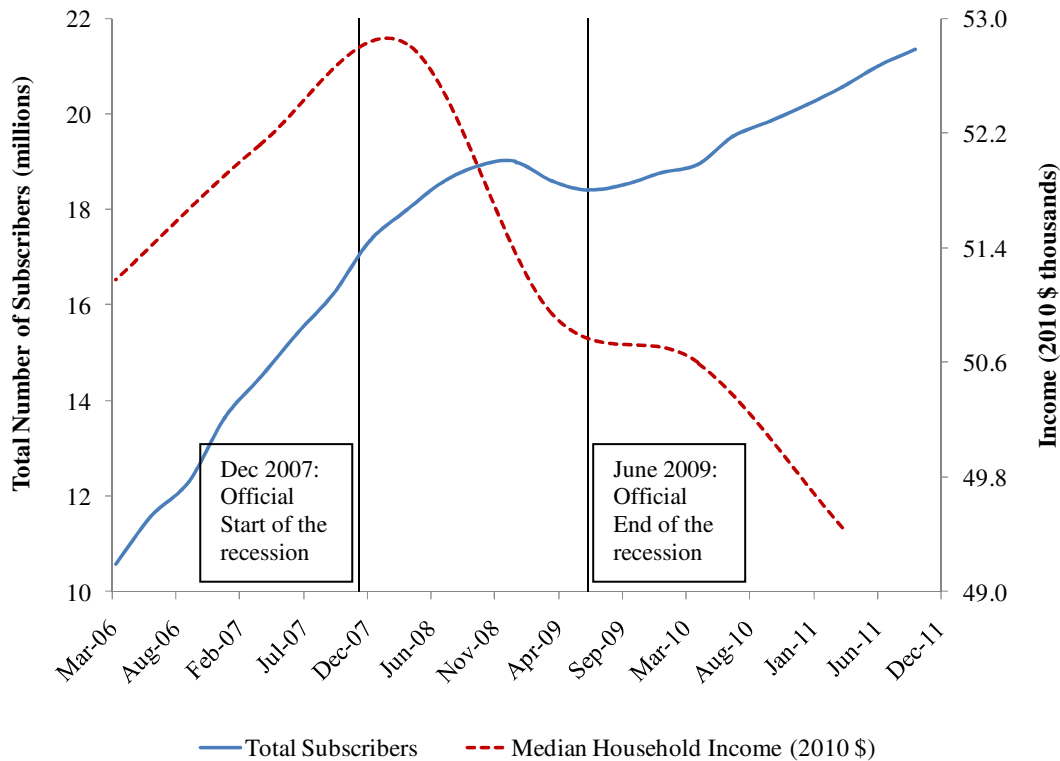
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47. 2010 SIRIUS XM ANNUAL REPORT, *supra* note 32, at 13.

48. Sirius XM Radio's CEO Discusses Q4 2010 Results – Earnings Call Transcript, *available at* Seeking Alpha (Feb. 15, 2011), <http://seekingalpha.com/article/252957-sirius-xm-radio-s-ceo-discusses-q4-2010-results-earnings-call-transcript> (last visited Oct. 19, 2011) [hereinafter Sirius XM Q4 2010 Earnings Call].

39. Real household income has declined dramatically since the start of the recession.<sup>49</sup> Nonetheless, Sirius XM's subscribership has grown during this period. Figure 2 shows median household income in 2010 dollars and Sirius XM's subscribership during and after the recession.

FIGURE 2: SIRIUS XM SUBSCRIBERS AND MEDIAN REAL U.S. HOUSEHOLD INCOME, MAR. 2006–SEPT. 2011



Note: Median household income is in 2010 dollars.

Sources: Subscriber numbers are from Figure 1, *supra*; U.S. Census Bureau, Current Population Survey, Income Statistics, Table H-5, Regions—All Races by Median and Mean Income: 1975 to 2010, available at <http://www.census.gov/hhes/www/income/data/historical/household/> (last visited Nov. 17, 2011).

40. The growth rate of Sirius XM's subscribership has remained relatively unchanged between the period of growing household income and the period of declining household income.

49. See, e.g., Sentier Research, Household Income Trends During the Recession and Economic Recovery (Oct. 10, 2011) available at [http://www.sentierresearch.com/pressreleases/SentierResearch\\_PressRelease\\_October\\_10\\_2011.pdf](http://www.sentierresearch.com/pressreleases/SentierResearch_PressRelease_October_10_2011.pdf); Robert Pear, *Recession Officially Over, U.S. Income Kept Falling*, N.Y. TIMES, Oct. 9, 2011, at A1, available at <http://www.nytimes.com/2011/10/10/us/recession-officially-over-us-incomes-kept-falling.html>.

That trend indicates that Sirius XM's subscribership is not highly sensitive to changes in real household income. Moreover, Sirius XM's number of subscribers since 2006 has increased and has experienced little volatility. Aside from a minor drop in subscribers between December 2008 and June 2009 (of only 0.2 million subscribers), Sirius XM's subscribership has increased in every year since 2003.<sup>50</sup> In 2008, Sirius XM had 19 million subscribers.<sup>51</sup> By September 30, 2011, that number exceeded 21 million.<sup>52</sup> Thus, the economic evidence contradicts the proposition that macroeconomic weakness, should it be present during the next license period, would constrain Sirius XM's ability to pay a higher royalty rate.

### **III. SIRIUS XM CAN PAY A HIGHER ROYALTY FROM 2013 TO 2017 AND STILL EARN A "FAIR INCOME" BECAUSE IT WILL FACE LESS RISK**

41. The various forms of risk that Sirius XM may face are unlikely to diminish its ability to pay a higher royalty. Table 2 lists the risk factors that Sirius XM disclosed in its 2010 annual report, filed in February 2011. I categorize the risks as relating to business matters, competition (which encompasses risks related to demand), technology, legal matters, macroeconomic conditions, and costs. I order the categories by the number of factors listed by Sirius XM. The factors in Table 2 can influence Sirius XM's business, but that influence will not necessarily impair Sirius XM's ability to pay a royalty rate from 2013 to 2017 that is at the upper range of the zone of reasonableness.

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50. See 2010 SIRIUS XM ANNUAL REPORT, *supra* note 32, at 1.

51. *Id.*

52. Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 31.



TABLE 2: SIRIUS XM'S RISK FACTORS REPORTED IN ITS 2010 ANNUAL REPORT

<b>Category</b>	<b>Risk Factor</b>
Competition	Our business depends in large part upon automakers and demand for our service is difficult to predict
Competition	Higher than expected costs of attracting new subscribers or higher turnover (i.e., churn) could each adversely affect our financial performance and operating results
Competition	Our ability to retain subscribers and maintain our average monthly revenue per subscriber is uncertain
Competition	We face substantial competition and that competition is likely to increase over time
Competition	Rapid technological and industry changes could adversely impact our services
Business	Failure of other third parties to perform could adversely affect our business
Business	We may from time to time modify our business plan, and these changes could adversely affect us and our financial condition
Business	Our substantial indebtedness could adversely affect our operations and could limit our ability to react to changes in the economy or our industry
Business	Liberty Media Corporation has significant influence over our business and affairs and its interests may differ from us
Business	Our net operating loss carryforwards could be substantially limited if we experience an ownership change as defined in the Internal Revenue Code
Technology	Failure of our satellites would significantly damage our business and potential satellite losses may not be covered by insurance
Technology	Interruption or failure of our information technology and communications systems could negatively impact our result and our brand
Technology	Our broadcast studios, terrestrial repeater networks, satellite uplink facilities or other ground facilities could be damaged by natural catastrophe or terrorist activities
Technology	Electromagnetic interference from others could damage our business
Legal	Failure to comply with FCC requirements could damage our business
Legal	The unfavorable outcome of pending or future litigation could have a material adverse effect
Legal	Changes in consumer protection laws and their enforcement could damage our business
Legal	Our business may be impaired by third-party intellectual property rights
Macroeconomy	General economic conditions can affect our business
Costs	Royalties for music rights may increase

*Note:* The risk factors are direct quotes from Sirius XM's 2010 annual report.

*Source:* 2010 SIRIUS XM ANNUAL REPORT, *supra* note 32, at 13-20.

42. The largest of the risks that Sirius XM identifies are competitive risks, on which I focus the majority of my analysis. Sirius XM states: "We face substantial competition and that

competition is likely to increase over time.”<sup>53</sup> This disclosure restates the obvious because, for any firm, competition is *always* greater in the long run than in the short run.<sup>54</sup> The relevant question is: To what extent will potential competitors *constrain Sirius XM’s ability to raise its prices (or keep its current prices from falling)* from 2013 to 2017?

**A. Older Forms of Audio Entertainment Have Not Constrained Sirius XM’s Prices and Are Unlikely to Constrain Sirius XM’s Profits Further in the Coming License Period**

43. Sirius XM has considered the various preexisting delivery platforms for audio entertainment described in this section (terrestrial radio, HD Radio<sup>TM</sup>, MP3 devices) to be the closest competitors for its service.<sup>55</sup> However, these alternative platforms have been widely available since at least the start of the current license period.<sup>56</sup> To the extent that they have constrained subscriptions to or the pricing of SDARS to date (and, as noted above, Sirius XM has increased subscribers despite having raised prices), there is no reason to expect that terrestrial radio, HD Radio, and MP3 devices will suddenly start to constrain Sirius XM during the next license period.

**1. Advertiser-Supported Terrestrial Radio**

44. Advertiser-supported terrestrial radio does not constrain Sirius XM’s prices or subscribership because of (1) Sirius XM’s lack of advertising on music channels compared with terrestrial radio’s being entirely advertiser-supported;<sup>57</sup> (2) Sirius XM’s content advantages over terrestrial radio, including both the quantity of content and the range of content that regulators

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53. 2010 SIRIUS XM ANNUAL REPORT, *supra* note 32, at 13.

54. *See, e.g.*, CARLTON & PERLOFF, *supra* note 33, at 62 (“In the long run, firms can adjust their levels of capital so that they can enter [the] market.”). Consequently, competition is greater in the long run than in the short run.

55. 2010 SIRIUS XM ANNUAL REPORT, *supra* note 32, at 1.

56. SIRIUS XM RADIO INC., 2011 ANNUAL MEETING OF STOCKHOLDERS PRESENTATION SLIDES DATED MAY 25, 2011 (SEC FORM 8-K), at slide 3 (filed May 25, 2011) (discussing “[t]remendous [g]rowth [s]ince [o]ur 2001 [l]aunch [d]espite [n]ew [c]ompetition” and listing other delivery platforms for audio entertainment).

57. *See, e.g.*, CLEAR CHANNEL COMMUNICATIONS, INC., 2010 ANNUAL REPORT (SEC FORM 10-K), at 2-3 (filed Feb. 14, 2011).

permit Sirius XM to broadcast as compared with terrestrial radio; and (3) Sirius XM's national distribution footprint.

45. First, terrestrial radio does not constrain Sirius XM's prices or subscribership because of the implicit cost to listeners of advertisements on music channels. The effective price to a subscriber of advertiser-supported radio is the product of (1) the value of that subscriber's time (as measured by the subscriber's wage rate) and (2) the commercial time to which that subscriber would be exposed as a listener to terrestrial radio. According to Forrester Research, the success of SDARS partly reflects listeners' desire to avoid hearing advertising on music channels.<sup>58</sup> If anything, it is SDARS that constrains terrestrial radio. At the end of 2004, Clear Channel (the largest radio broadcasting company in the United States<sup>59</sup>) cut its ad time and reduced the length of commercial spots from 60 seconds to 30 seconds in an attempt to "win back listeners, boost ratings, and in turn lead to higher ad rates."<sup>60</sup>

46. Even for Sirius XM subscribers willing to endure commercials on music channels, Sirius XM has significant content advantages over terrestrial radio. The number of terrestrially delivered radio stations available in any given geographic market is severely constrained compared with the number of channels available on Sirius XM. Sirius XM offers over 140 channels to its subscribers, including 71 advertisement-free music channels,<sup>61</sup> compared to many fewer stations in radio markets across the country.<sup>62</sup> Even in the largest radio markets, the diversity of musical genres available is quite limited. Bernstein Research said in 2005 that digital

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58. *Why Radio is Worth Watching*, THE ECONOMIST, June 11, 2005, at 15 (citing analyst Ted Schadler).

59. ClearChannel, ClearChannel Radio, <http://www.clearchannel.com/Radio/> (last visited Nov. 9, 2011).

60. Tom Lowry, *Antenna Adjustment: Clear Channel is pulling apart its empire as it scrambles to compete in a changed media world*, BUS. WK., June 20, 2005, at 64.

61. Sirius XM, What Is Sirius XM?, <http://www.siriusxm.com/whatisirsiriusxm> (last visited Nov. 3, 2011).

62. Arbitron, [http://www.arbitron.com/home/ratings\\_topline.htm](http://www.arbitron.com/home/ratings_topline.htm) (last visited Nov. 3, 2011).

terrestrial radio “poses little threat to the growth in satellite radio subscriptions.”<sup>63</sup> Six years later, that assessment remains valid.

47. Moreover, some content on Sirius XM would be unlawful to deliver by terrestrial radio stations. The FCC regulates “obscene, indecent, or profane language” transmitted “by means of radio communication.”<sup>64</sup> It bars the terrestrial broadcast of indecent content between the hours of 6 a.m. and 10 p.m.<sup>65</sup> Sirius XM is exempt from these indecency rules.<sup>66</sup> A number of Sirius XM’s channels contain indecent content. Music channels marked with an “XL” on Sirius XM’s web site contain explicit lyrics.<sup>67</sup> They are SiriusXM Limited Engagements, Heavy Metal, Music of Action Sports – Tony Hawk, Hip-Hop Hits, Eminem’s Uncut Hip-Hop Channel, and Old Skool Rap.<sup>68</sup> Consumers cannot turn to terrestrial radio broadcasts to receive such content.

48. Finally, unlike Sirius XM, advertiser-supported terrestrial radio stations lack a ubiquitous footprint. As early as 2001, XM’s nationwide service could reach nearly 100 million listeners age twelve and over who were beyond the range of the largest 50 radio markets, as measured by Arbitron.<sup>69</sup> At that time, XM estimated that, of these 100 million listeners, 36 million lived beyond the largest 276 Arbitron markets.<sup>70</sup> XM also estimated that 22 million people age twelve and older received five or fewer stations.<sup>71</sup> A significant percentage of radio listeners, such as truckers, routinely travelled through two or more Arbitron radio markets on a

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63. Craig Moffet & Amelia Wong, *Satellite Radio: Limitations of Digital Radio Suggest Impact on Satellite Radio Will Likely Be Small*, BERNSTEIN RESEARCH CALL, Dec. 8, 2005, at 1.

64. 18 U.S.C. § 1464 (2000).

65. 47 C.F.R. § 73.3999 (2006).

66. In the Matter of Satellite CD Radio, Inc., Memorandum Opinion and Order, FCC Dkt. No. 01-335, 16 F.C.C.R. 21,458, 21,460 (2001).

67. Sirius XM Satellite Radio, SiriusXM Channel Lineup, <http://www.siriusxm.com/servlet/Satellite?blobcol=urlimage&blobheadername1=Content-Type&blobheadervalue1=application%2Fpdf&blobkey=id&blobtable=ImageAsset&blobwhere=1283879646982&sbinary=true> (last visited Nov. 11, 2011) (“XL [m]ay include frequent explicit language or mature programming”).

68. *Id.*

69. XM SATELLITE RADIO, INC., 2000 ANNUAL REPORT (SEC FORM 10-K), at 3 (Mar. 15, 2001).

70. *Id.* (citing census data and The Arbitron Company Fall 1999 Market Rankings).

71. *Id.* (citing The Satellite Report 1999, C. E. Unterberg, Towbin).

frequent basis.<sup>72</sup> Those consumers who either have access to very few terrestrial radio stations or frequently travel through multiple radio markets clearly would not perceive terrestrial radio broadcasts to be a reasonable substitute Sirius XM.

## 2. HD Radio

49. Sirius XM faces little competition from HD Radio for the same reasons that Sirius XM faces little competition from terrestrial radio broadcasters. HD Radio provides substantially the same service as terrestrial radio, with only two differences: HD Radio has higher audio quality than terrestrial radio, and HD Radio offers more content than terrestrial radio. These two differences are not significant enough for HD Radio to constrain the future profitability of Sirius XM.

50. Like terrestrial radio, HD Radio is advertiser-supported, HD Radio's volume of content pales in comparison to that of Sirius XM, and HD radio broadcasts are subject to FCC indecency regulations. Moreover, HD Radio has an even smaller geographic coverage than traditional terrestrial radio. Not all areas that receive an analog signal also receive an HD signal. Listeners typically can use an HD radio receiver only in urban areas,<sup>73</sup> where HD signals are actually broadcast.

51. HD Radio requires listeners to purchase HD Radio receivers. HD Radio's products web page shows car stereos ranging from \$129.00 to \$2,000.00<sup>74</sup> and car stereo converters ranging from \$99.00 to \$199.95.<sup>75</sup> HD Radio's web page for home audio products

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72. *Id.* at 5.

73. *See, e.g.*, David Lee, R-Tools Technology, HD Radio vs. Satellite Radio, <http://hdradio-vs-satelliteradio.articles.r-tt.com/> (Feb. 17, 2011).

74. HD Radio, Buyer's Guide, Car Audio, Car Stereo, <http://www.hdradio.com/buyers-guide/car-stereo> (last visited Nov. 16, 2011).

75. HD Radio, Buyer's Guide, Car Audio, Converter, <http://www.hdradio.com/buyers-guide/converter> (last visited Nov. 16, 2011).

shows receivers, tuners, and iPod docks ranging from \$99.99 to \$7,000.00.<sup>76</sup> A subscriber to Sirius XM similarly must purchase a Sirius XM radio if the subscriber's car does not already have a Sirius XM radio installed in it. Whether they listen to HD radio or Sirius XM, consumers must purchase stereos. Moreover, as I will describe in Part III.B, new and used cars increasingly have pre-installed Sirius XM radios and free trial subscriptions to Sirius XM.

52. Sirius and XM contended in their merger application that HD Radio would significantly threaten SDARS.<sup>77</sup> For example, they said that, “[b]y some estimates, almost one-third of one million Americans already listen to HD Radio on a weekly basis, and this number is expected to increase to approximately 12 million by 2010.”<sup>78</sup> The February 2007 Bridge Ratings report that Sirius and XM cited in their merger application projected that HD Radio sales would reach 1.5 million units by the end of 2007 and 12 million units by 2010.<sup>79</sup> However, actual consumer adoption of HD Radio has grown much more slowly.<sup>80</sup> By September 2008, HD Radio receiver sales had reached only 600,000 units.<sup>81</sup> By June 2010, 3 million HD Radio receivers had been sold to consumers,<sup>82</sup> which was only 25 percent of Bridge Ratings' projection. HD Radio clearly is not the competitive threat that Sirius and XM predicted.

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76. HD Radio, Buyer's Guide, Home Audio, <http://www.hdradio.com/buyers-guide/home-audio> (last visited Nov. 16, 2011).

77. 2007 Sirius-XM Consolidated Merger Application, *supra* note 18, at 26-28.

78. *Id.* at 27 (citing Bridge Ratings, Digital Media Growth Projections (Feb. 19, 2007), [http://www.bridgeratings.com/press\\_021907-digitalprojectionsupd.htm](http://www.bridgeratings.com/press_021907-digitalprojectionsupd.htm)).

79. Bridge Ratings, Digital Media Growth Projections (Feb. 19, 2007), [http://www.bridgeratings.com/press\\_021907-digitalprojectionsupd.htm](http://www.bridgeratings.com/press_021907-digitalprojectionsupd.htm).

80. *See, e.g.*, Sarah McBride, *Weak Signals: Can HD Radio Find Listeners?*, WALL ST. J., Nov. 8, 2008, at D1.

81. Joseph Palenchar & Amy Gilroy, *HD Radio Continues Slow-but-Steady Growth*, TWICE (This Week in Consumer Electronics), Jan. 8, 2009, [http://www.twice.com/article/253539-HD\\_Radio\\_Continues\\_Slow\\_But\\_Steady\\_Growth.php](http://www.twice.com/article/253539-HD_Radio_Continues_Slow_But_Steady_Growth.php).

82. Ibiquity Digital Corp., Company History, [http://www.ibiquity.com/about\\_us/company\\_history](http://www.ibiquity.com/about_us/company_history) (last visited Nov. 16, 2011).

### 3. MP3s Delivered over an iPod

53. MP3s delivered over an iPod or other MP3 players do not constrain the pricing for Sirius XM programming. Many U.S. consumers listen to MP3s downloaded on iPods.<sup>83</sup> However, the widespread adoption of iPods and the growth in MP3 downloads does not prove that MP3s delivered over an iPod constrain Sirius XM's ability to increase its prices or to pay a higher royalty for sound recordings. Apple released the iPod in 2001, about the same time that Sirius and XM began broadcasting. Since then, Sirius XM's subscribership has increased precipitously, even as its prices have risen. It is not reasonable to expect iPods or other MP3 players to constrain Sirius XM in the next rate term more than they currently do, which is negligible.

### B. There Is Insufficient Evidence to Conclude That, from 2013 to 2017, Sirius XM Will Face Competition from the New Technology of Mobile Internet Radio in Cars

54. Although current competition in the market for audio entertainment delivery platforms has not constrained Sirius XM's prices, there remains the possibility that the competitive landscape could change in the coming license period. As I explained above, there is no evidence or reason to believe that the older audio entertainment delivery platforms will constrain Sirius XM any further in the coming license period than they do now. Consequently, the salient question is whether Sirius XM will face increased competition from *newer* forms of audio entertainment. The only identifiable competitive threat to Sirius XM is mobile Internet radio in cars.<sup>84</sup> However, for the reasons that I explain below, great uncertainty exists as to

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83. See, e.g., Donald Melanson, *Apple: 16 Billion iTunes Songs Downloaded, 300 million iPods Sold*, ENGADGET, Oct. 4, 2011, <http://www.engadget.com/2011/10/04/apple-16-billion-itunes-songs-downloaded-300-million-ipods-sol/> (reporting that Tim Cook, Apple's chief executive officer, "confirmed that there's now been . . . 16 billion songs downloaded from iTunes, and 300 million iPods sold").

84. In my discussion of mobile Internet radio, I am including both non-interactive webcasting services that operate under the statutory license and interactive (or "on-demand") streaming services that offers the consumer the ability to hear exactly the song that she requests. Both the non-interactive and the interactive streaming services offer a radio-like service that streams musical content based on selected genres, artists, or user preferences. In

whether and to what extent mobile Internet radio in cars can compete effectively with Sirius XM by 2017. Two questions are relevant to assessing the competitive threat posed by mobile Internet radio in cars in the next license period. First, how widely adopted will mobile Internet radio in cars be by 2017? Second, will the adoption of mobile Internet radio in cars *displace* subscriptions to SDARS?

**1. Mobile Internet Radio Is Unlikely to Overcome Sirius XM’s Commanding Distribution Advantage with Automobile Manufacturers by 2017**

55. Sirius XM has a formidable distribution advantage with automobile manufacturers. Potential substitutes for Sirius XM (including mobile Internet radio in cars) pose little threat of significant competition until they can catch up with Sirius XM’s penetration of new and used cars that are pre-installed with Sirius XM. Sirius XM has agreements “with *every* major automaker to include satellite radios in new vehicles.”<sup>85</sup> That 100-percent penetration among major automakers will help to protect Sirius XM from being displaced in the near future by audio streaming services. Satellite radio is already built into 65 percent of new cars.<sup>86</sup> Sales of most of these cars include a free introductory subscription to Sirius XM.<sup>87</sup>

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addition, the interactive streaming services allow users to select directly a song or album they wish to hear or to play cached playlists (created by the users). These aspects of interactive streaming services, which are the primary selling points of such a service, provide an experience much more similar to an iPod, albeit without the need for a subscriber to purchase the music. With respect to these features, the ability of interactive services to constrain Sirius XM’s prices or subscribership is limited in the same way as MP3s delivered over an iPod.

85. 2010 SIRIUS XM ANNUAL REPORT, *supra* note 32, at 13 (emphasis added).

86. *Sirius XM Ramps Up Used Car Market with Nissan Announcement*, SEEKING ALPHA (Oct. 10, 2011), <http://seekingalpha.com/article/298663-sirius-xm-ramps-up-used-car-market-with-nissan-announcement>.

87. *E.g.*, Press Release, Sirius XM, Ford Motor Company to Offer Nationwide Introductory Trial of Sirius XM Radio on Certified Pre-Owned Ford and Lincoln Mercury Vehicles (Feb. 4, 2010) [hereinafter Press Release of Feb. 4, 2010] (“Ford will continue to offer SIRIUS as a factory-installed feature with a 6-month subscription of SIRIUS included on most new Ford and Lincoln Mercury vehicles sold in the United States.”); Press Release, Sirius XM, General Motors Dealers to Offer 3-Month Subscription to SiriusXM on Pre-Owned Vehicles (June 20, 2011) [hereinafter Press Release of June 20, 2011] (“General Motors will continue to offer customers a 3-month subscription to SiriusXM with the purchase of new and Certified Pre-Owned Cadillac/Chevrolet/Buick/GMC vehicles that are factory equipped with SiriusXM.”); Press Release, Sirius XM, Subaru to Offer SiriusXM on All Models Beginning with Model Year 2012 Vehicles (Oct. 4, 2011) (“All Subaru customers purchasing new satellite radio-equipped vehicles will automatically receive a 4-month trial subscription to the XM Select package”); Press Release, Sirius XM, Hyundai to Offer Introductory Subscription to XM on Certified Pre-Owned Vehicles (May 24, 2011) [hereinafter Press Release of May 24, 2011] (“Hyundai also offers a 3-month introductory subscription to XM



56. Moreover, satellite radios have been built into certain new cars since at least 2003;<sup>88</sup> consequently, satellite radios are currently built into a large volume of *used* cars. The proportion of cars on the road in the United States that are equipped with Sirius XM will increase as more new cars equipped with satellite radio enter the used-car market and replace older used cars not equipped with Sirius XM. Many dealerships sell far more used cars than new cars.<sup>89</sup> Many automobile manufacturers now offer a free three-month Sirius XM subscription with all used cars equipped with satellite radio that are purchased. These manufacturers include Ford,<sup>90</sup> General Motors,<sup>91</sup> Nissan and Infiniti,<sup>92</sup> Hyundai,<sup>93</sup> and others.

57. If manufacturers were to begin pre-installing a new technology for music delivery in cars *today*, it would not be reasonable to expect that the new technology would achieve by 2017 the level of penetration that satellite radio currently has. Pandora, for example, did not begin until 2009 to have agreements with automobile manufacturers to provide in-dashboard options.<sup>94</sup> In contrast, Sirius XM is factory-installed in models at least as old as 2003, and a purchaser of one of these used cars can receive a free introductory subscription with her used-car

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with the purchase of new Hyundai vehicles sold in the United States and factory equipped with XM.”); Press Release, Sirius XM, Nissan North America to Offer Introductory Subscription to XM on Certified Pre-Owned Nissan and Infinity Vehicles (Jan. 10, 2011) (“Customers buying new Nissan and Infiniti vehicles will continue to receive a three-month introductory subscription to the ‘XM Everything’ package in new XM factory-equipped vehicles sold in the United States.”); Press Release, Sirius XM, BMW Motorcycles to Offer SIRIUS as Standard Equipment on Model Year 2011 Radio Equipped Motorcycles (Dec. 22, 2010) (“BMW Motorcycle will include an introductory one-year subscription to the ‘SIRIUS Everything’ package with the purchase of every new radio-equipped RT, GT and GTL Touring Motorcycles produced from January 2011.”).

88. *See, e.g.*, Press Release, Sirius Satellite Radio, Sirius Now Available in BMW 3 Series, 5 Series, and X5 Vehicles (Jan. 9, 2003); Press Release, Sirius Satellite Radio, SIRIUS Satellite Radio Arrives at Chrysler, Dodge and Jeep® Dealerships Nationwide (Jan. 22, 2003); Press Release, Sirius Satellite Radio, Sirius Satellite Radio Now Available on Select Ford, Lincoln and Mercury Vehicles (Sept. 18, 2003).

89. *Sirius XM Ramps Up Used Car Market with Nissan Announcement*, *supra* note 86.

90. Press Release of Feb. 4, 2010, *supra* note 87. Ford is offering the subscription on all “Ford and Lincoln Mercury Certified Pre-owned vehicles.” *Id.*

91. Press Release of June 20, 2011, *supra* note 87. General Motors is offering the subscription on all used cars that General Motors dealerships sell that are factory-equipped with satellite radio, regardless of the manufacturer. *Id.*

92. Press Release, Sirius XM, Nissan and Infinity Dealers to Offer 3-Month XM Subscription on All Pre-Owned Vehicles with Factory-Installed Satellite Radios (Oct. 6, 2011).

93. Press Release of May 24, 2011, *supra* note 87.

94. PANDORA MEDIA, INC., QUARTERLY REPORT FOR THE PERIOD ENDED JULY 31, 2011 (SEC FORM 10-Q), at 21 (filed Sept. 2, 2011).

purchase. Sirius XM's advantage in automobile distribution, particularly within used cars, will make it difficult for audio streaming to compete effectively with Sirius XM from 2013 to 2017.

**2. It Is Doubtful That Mobile Internet Radio in Cars Will Constrain Sirius XM's Prices or Number of Subscribers Before 2017**

58. Currently, consumers face significant technological limitations to mobile Internet radio services through car stereos. The iPhone itself was not introduced until 2007.<sup>95</sup> When a car is not smartphone-compatible, the driver faces significant technological and safety limitations to listening to mobile Internet radio. These limitations prevent mobile Internet radio in cars from constraining Sirius XM's prices or number of subscribers.

**a. Technological Limitations to Data Usage and Internet Connectivity Exist in Cars**

59. Sirius XM has a significant technological advantage over Internet radio services due to the data limitations of smartphones. Bandwidth and data-usage limitations constrain mobile Internet radio from being an adequate in-car substitute for Sirius XM. Although Pandora and other audio streaming providers offer services without a paid subscription, even these "free" services require the user to incur the cost of data usage. Moreover, with respect to interactive services, such as Spotify, mobile streaming of any sort requires the purchase of a subscription, generally priced at \$9.99.<sup>96</sup>

60. According to Verizon Wireless' data-usage calculator, streaming one hour of audio on a 3G or 4G smartphone per day in a single month uses 1.76 gigabytes (GB).<sup>97</sup> A 2-GB monthly data plan with Verizon Wireless costs \$30 per month, and a 5-GB plan and a 4-GB plan

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95. Press Release, Apple Inc., *Apple Reinvents the Phone with the iPhone* (Jan. 9, 2007).

96. See Spotify, Get Spotify, <http://www.spotify.com/us/get-spotify/overview/> (last visited Nov. 6, 2011).

97. Verizon Wireless, Data Usage Calculator, [http://www.verizonwireless.com/splash\\_includes/datacalculator.html](http://www.verizonwireless.com/splash_includes/datacalculator.html) (last visited Nov. 10, 2011).

with mobile hotspot each cost \$50 per month.<sup>98</sup> If a user decides to purchase a 5-GB plan instead of a 2-GB plan to accommodate her demand for mobile Internet radio, she will have paid an additional \$20 per month to be able to receive a “free” mobile Internet radio. That \$20 outlay exceeds Sirius XM’s current and planned monthly subscription prices. Alternatively, if the consumer purchases only the 2-GB plan, she must incur an overage charge of *\$10 per gigabyte* if she exceeds her data limit. Mobile Internet radio thus can be substantially more expensive than a subscription to Sirius XM.

61. Internet connectivity in cars is a prerequisite for mobile Internet radio to compete effectively with Sirius XM radio. Audio streaming through a smartphone is not possible in a sparsely populated area without 3G service. In contrast, because Sirius XM has a national geographic footprint in the continental United States, a consumer can receive content from Sirius XM, at the same sound quality, in rural and urban regions alike. Even in densely populated urban areas, limitations to Internet connectivity can impair mobile Internet radio in cars and foreclose its ability to constrain Sirius XM’s pricing or number of subscribers during the next license period.<sup>99</sup>

**b. Technological and Safety Limitations Prevent the Seamlessness of Mobile Internet Radio in Cars**

62. Mobile Internet radio has inferior ease-of-use in cars compared with Sirius XM. One industry analyst, commenting in September 2011, put the point succinctly: “Content is no longer king, instead it is *easily accessible content* that is king.”<sup>100</sup> He explained that “Sirius XM

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98. Verizon Wireless, Nationwide Single-Line Plans, <http://www.verizonwireless.com/b2c/plans/?page=single> (last visited Nov. 10, 2011).

99. John R. Quain, *Will the Internet Kill Traditional Car Radio?*, N.Y. TIMES, May 7, 2010, <http://www.nytimes.com/2010/05/09/automobiles/09RADIO.html?pagewanted=all>. (noting that, even in New York City, “there were occasional dead spots when the music dropped out as the cellphone searched for a signal).

100. Spencer Osborne, *Sirius XM’s Advantages Defined*, Seeking Alpha, <http://seekingalpha.com/article/296471-sirius-xm-s-advantages-defined?source=yahoo> (Sept. 28, 2011) (emphasis added).

works in the dashboard seamlessly along with terrestrial radio.”<sup>101</sup> In contrast, “true integration [of smartphones] in enough cars to make a material difference [to Sirius XM] is years away.”<sup>102</sup> Consequently, he concluded, “[f]or the foreseeable future Sirius XM can still thrive in the dashboard.”<sup>103</sup> The fact that the large majority of cars on the road do not currently have seamless access to smartphone applications, and will not for the foreseeable future, limits the suitability of mobile Internet radio as a close substitute for satellite radio over the next license period.<sup>104</sup>

63. When a car is not smartphone-compatible, audio streaming through the car stereo requires multiple steps. Pandora’s website lists numerous ways to stream music from a smartphone through a car stereo,<sup>105</sup> most of which require purchasing additional equipment. One option is to install an in-dashboard stereo that supports Pandora. However, certain in-dashboard stereos are only compatible with certain phones. For example, the Pioneer and Alpine stereos both require an iPhone,<sup>106</sup> leaving users with other types of smartphones, including phones with the Android operating system, unable to connect to Pandora through these in-dashboard mechanisms.

64. The other options besides an in-dashboard system require the user to use her cell phone directly, which Pandora has recognized may create a distraction and hazard.<sup>107</sup> These

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101. *Id.*

102. *Id.*

103. *Id.*

104. Even cars that are “fully” compatible with audio streaming still require a connection, whether wired or wireless, to a smartphone to handle the actual music streaming. *See, e.g.*, Pandora, How to Listen to Pandora in the Car, <http://help.pandora.com/customer/portal/articles/24523-how-to-listen-to-pandora-in-the-car> (last visited Nov. 22, 2011) (“All of the currently available systems that support full integration with car stereo controls still require a smartphone to handle the actual music streaming.”).

105. *Id.*

106. Pandora, FAQ, Pandora and Pioneer, [http://blog.pandora.com/mt/mt-search.cgi?blog\\_id=25&tag=Pandora%20Mobile&limit=20](http://blog.pandora.com/mt/mt-search.cgi?blog_id=25&tag=Pandora%20Mobile&limit=20) (last visited Nov. 10, 2011); Pandora, FAQ, Pandora and Alpine, <http://help.pandora.com/customer/portal/articles/83143-pandora-and-alpine> (last visited Nov. 10, 2011). These stereos also cost \$150 or significantly more.

107. Pandora, How to Listen to Pandora in the Car, *supra* note 104 (“For your safety: ONLY use your mobile device when allowed by law and conditions permit safe use. ALWAYS set up your mobile device and start Pandora before beginning to drive. Avoid interacting with your device while the vehicle is in motion. NEVER let your use of

safety considerations impede the ability of mobile Internet radio to offer consumers automobile compatibility that is as seamless as Sirius XM.

65. According to the *New York Times*, Pandora's CEO expects that "there will be a *gradual* migration in the car to services like Pandora" and that Pandora "will not become a mainstream service until *all* new cars feature systems that can tap into apps."<sup>108</sup> This degree of automobile compatibility has not yet occurred. There is no reason to believe that mobile Internet radio services such as Pandora will be so widely adopted as to constrain Sirius XM's prices or subscribership to any significant extent by 2017.

**C. Sirius XM Will Face a Lesser Economic Cost of Technological Risk in the Next License Period Than It Has Faced in the Current License Period**

66. Sirius XM has nine satellites in orbit.<sup>109</sup> The only other satellite that Sirius XM reportedly intends to launch (Sirius FM-6) will be launched by early 2012.<sup>110</sup> Sirius XM stated in its 2010 annual report that, if any satellite fails, there are multiple in-orbit spares for both the Sirius and XM satellites.<sup>111</sup> Because Sirius XM has these spares, the risk that a satellite failure *will cause economic harm to its operations and business* is necessarily less than the risk that a satellite will fail. Moreover, Sirius XM has purchased insurance to cover significant portions of any loss from a satellite failure or disruption to a satellite's useful life.<sup>112</sup> Consequently, any risk that arises from Sirius XM's technologies and equipment should receive less weight in this royalty rate proceeding than it did in the previous proceeding.

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a mobile device distract you from the driving task. Always drive safely, with your hands on the wheel and eyes and attention on the road.”).

108. Quain, *supra* note 99 (emphasis added) (reporting remarks of Joe Kennedy, chief executive of Pandora).

109. Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 9.

110. *Id.* at 36.

111. 2010 SIRIUS XM ANNUAL REPORT, *supra* note 32, at 14

112. *See id.* at 5.

**D. Sirius XM Will Face a Low Degree of Legal and Regulatory Risk**

67. Since the merger, Sirius XM has faced unremarkable legal and regulatory risk. The merger of Sirius and XM created a single licensee of SDARS spectrum, and it is not reasonable to expect that the FCC will allocate more spectrum for SDARS entrants. Starting in 2012, Sirius XM will be rid of price regulation. Consequently, it is not reasonable to expect that legal or regulatory risk will suppress Sirius XM's profits and render it incapable of paying a higher royalty rate from 2013 to 2017.

**IV. A HIGHER ROYALTY RATE WILL NOT DISRUPT THE SDARS MARKET**

68. In 2008, the CRJs said that “a royalty rate that would cause the SDARS to cease operating or dramatically change the nature of its product would clearly be disruptive.”<sup>113</sup> The royalty rates that SoundExchange requests would not cause Sirius XM to cease operating. Sirius XM would not cease operations unless its average subscription price fell below its average variable cost.<sup>114</sup> I calculate that Sirius XM would need to pay a royalty rate of 57.8 percent of gross revenue to necessitate exiting the market. That royalty rate far exceeds what SoundExchange seeks in this proceeding.

69. For the fiscal quarter ending in September 2011, Sirius XM reported subscriber revenue of \$660.8 million, and the sum of its costs of services (which I use to approximate Sirius XM's variable cost<sup>115</sup>) equaled \$277.4 million, or less than half of Sirius XM's subscriber

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113. CRJ 2008 Final Rule and Order, *supra* note 1, at 4097.

114. *See, e.g.*, CARLTON & PERLOFF, *supra* note 33, at 59-60.

115. *See* CHARLES T. HORNGREN, GEORGE FOSTER & SRIKANT M. DATAR, *COST ACCOUNTING: A MANAGERIAL EMPHASIS* 61 (8th ed., Prentice-Hall, Inc. 1994). Operating cost is synonymous with “operating expenses” and consists of variable operating cost and fixed operating cost. Sirius XM's operating expenses consist of cost of services, subscriber acquisition costs, sales and marketing, engineering, design, and development, general administrative, depreciation and amortization, and restructuring, impairments, and related costs. I use cost of services to approximate Sirius XM's variable cost.

revenue.<sup>116</sup> Even Sirius XM's reported *total* operating expenses of \$578.1 million (which I use to approximate Sirius XM's total cost) was less than its subscription revenue.<sup>117</sup> Sirius XM's operating profit margin as of September 30, 2011 was 22.0 percent.<sup>118</sup> Consequently, Sirius XM's existing royalty rate clearly is not threatening the company's profitability, let alone its viability.

70. A higher royalty rate could disrupt the SDARS industry in terms of causing Sirius XM to cease supplying SDARS only if the royalty rate caused Sirius XM's average variable cost to exceed its subscription price. An informative exercise is to determine the minimum royalty rate that would raise Sirius XM's average variable cost above its subscription price. I refer to this royalty rate as Sirius XM's "shutdown royalty rate." The purpose of this exercise is not to determine a reasonable rate. It is to show what the shutdown royalty rate would be. Table 3 shows my calculation of Sirius XM's shutdown royalty rate, using financial data that Sirius XM reported in its quarterly report for the three months ending September 30, 2011. The column "10-Q" reports Sirius XM's actual financial results. The column "Shutdown Scenario" calculates the costs and royalties that would cause Sirius XM to make the shutdown decision and cease operating.

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116. Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 1.

117. *Id.*

118. Yahoo! Finance, SIRIUS XM Radio Inc. (SIRI), Key Statistics, <http://finance.yahoo.com/q/ks?s=SIRI+Key+Statistics> (last visited Nov. 15, 2011).

TABLE 3: CALCULATION OF SIRIUS XM'S SHUTDOWN ROYALTY RATE, USING Q3 2011 DATA

<i>(in \$ thousands, except for royalty rates)</i>		10-Q	Shutdown Scenario	
[1]	Subscriber revenue	660,837	660,837	
[2]	Total revenue	762,550	762,550	
[3]	Total cost of services	277,360	660,837	= [1]
[4]	Revenue share and royalties	117,043	500,520	= [3] – [5]
[5]	<ul style="list-style-type: none"> <li>Programming and content</li> <li>Customer service and billing</li> <li>Satellite and transmission</li> <li>Cost of equipment</li> </ul>	70,509	70,509	
		64,239	64,239	
		19,681	19,681	
		5,888	5,888	
[6]	Royalties paid to SoundExchange	57,191	440,668	= [4] – [7]
[7]	Other revenue share and royalties	59,852	59,852	
[8]	<b>Royalty rate paid to SoundExchange</b>	<b>7.5%</b>	<b>57.8%</b>	<b>= [6]/[2]</b>

*Note:* Shaded cells highlight numbers that change from reality to the shutdown scenario.

*Source:* Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 1.

71. My calculation shown in Table 3 is as follows. For the three months ending September 30, 2011, Sirius XM had \$660.8 million in subscriber revenues. To reach Sirius XM's shutdown price, the new royalty rate would need to be so high as to increase Sirius XM's total cost of services (my proxy for variable costs) to \$660.8 million. Holding the other sources of cost of services constant, "revenue share and royalties" costs would need to increase to \$500.5 million for Sirius XM to reach its shutdown royalty rate.

72. Sirius XM's total royalties paid to SoundExchange in 2011 is 7.5 percent of Sirius XM monthly gross revenue.<sup>119</sup> For the purpose of this shutdown-royalty-rate calculation, I assume that Sirius XM's gross revenue from July 1, 2011 to September 30, 2011 equals its reported total revenue, \$762.6 million. A 7.5-percent royalty rate implies that Sirius XM would pay \$57.2 million in royalties over those three months (equal to 7.5% × \$762.6 million). The difference between Sirius XM's total "revenue share and royalties" cost (\$117.0 million) and the \$57.2 million that Sirius XM would pay in royalties to SoundExchange is \$59.9 million. Holding

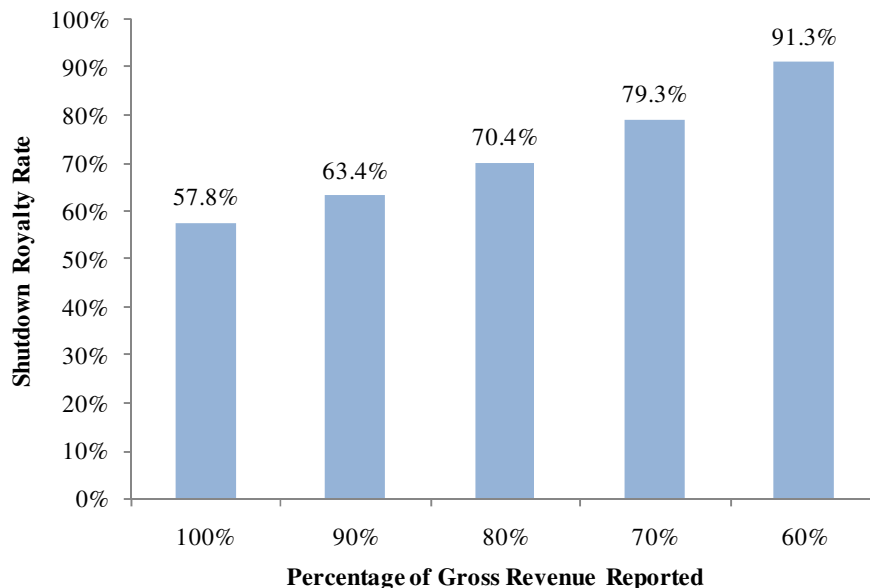
119. CRJ 2008 Final Rule and Order, *supra* note 1, at 4102.



those other “revenue share and royalties” cost constant, to increase Sirius XM’s “revenue share and royalties” cost to \$500.5 million, Sirius XM’s royalties paid to SoundExchange would need to increase from \$57.2 million to \$440.7 million. That amount would yield a royalty rate equal to 57.8 percent of Sirius XM’s total reported revenue.

73. I understand that, for purposes of calculating Sirius XM’s royalty obligation to SoundExchange, regulations define Sirius XM’s revenue more narrowly than its total revenue that Sirius XM discloses in its annual report.<sup>120</sup> I thus recalculated the shutdown royalty rate for the scenarios in which Sirius XM reports 60 percent, 70 percent, 80 percent, and 90 percent of its total revenues to SoundExchange for purposes of computing royalties due to SoundExchange. Figure 3 shows the shutdown royalty rates corresponding to each percentage of gross revenues reported.

FIGURE 3: SHUTDOWN ROYALTY RATES DEPENDING ON THE PERCENTAGE OF GROSS REVENUE THAT SIRIUS XM REPORTS



Source: Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 1.

120. 37 C.F.R. § 382.11 (2007).

As Figure 3 shows, the shutdown royalty rate increases as Sirius XM reports a smaller percentage of its gross revenue for purpose of computing royalties due to SoundExchange. Thus, regardless of the percentage of gross revenue that Sirius XM reports, the *lowest* its shutdown royalty rate could be is 57.8 percent. Consequently, any royalty rate below 57.8 percent would not disrupt the SDARS market in the sense of causing Sirius XM to exit the market. Of course, the maximum royalty rate that SoundExchange has requested is well below a 57.8-percent shutdown royalty rate. Thus, Sirius XM can pay a higher royalty rate without any risk that the higher rate will cause it to exit the SDARS market.

74. Finally, Sirius XM's expectations of future growth support its ability to pay a royalty rate from 2013 to 2017 that considerably exceeds its current royalty rate. Sirius XM's management expects the company's subscribership to increase in the near future,<sup>121</sup> which, in the presence of economies of scale, will decrease its average variable cost further and thereby generate even larger positive margins. In 2010, Sirius XM "continued to grow revenue faster than expenses,"<sup>122</sup> indicating that Sirius XM continues to achieve economies of scale. Furthermore, as I mentioned earlier, Sirius XM has announced increases in its subscription prices.<sup>123</sup> Increasing subscription prices will further increase Sirius XM's margin. Thus, from 2013 to 2017, it is reasonable to expect that Sirius XM could pay a substantially higher royalty rate without coming close to its shutdown point. The higher royalty rates requested by SoundExchange pose no credible threat of disrupting the SDARS market by shutting down Sirius XM's operations.

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121. See, e.g., Sirius XM Q3 2011 Earnings Call, *supra* note 31.

122. Sirius XM Q4 2010 Earnings Call, *supra* note 48.

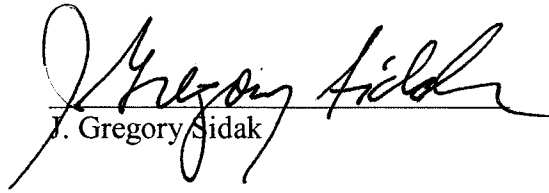
123. Press Release, Sirius XM Radio, Inc., SiriusXM Provides 2012 Financial Guidance (Sept. 14, 2011).

**V. CONCLUSION**

75. Sirius XM is, and will be, more able to pay higher royalty rates in the next license period than it was in the current license period. SoundExchange's rate proposal would not disrupt the provision of SDARS.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: 11/23/11

  
J. Gregory Sidak



**APPENDIX I: CURRICULUM VITAE OF J. GREGORY SIDAK**

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## E D U C A T I O N

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CRITERION ECONOMICS, L.L.C., Washington, D.C.: Chairman, 2008-present. Founder, 1999-present.

TILBURG UNIVERSITY, Tilburg, The Netherlands: Ronald Coase Professor of Law and Economics, 2009-present.

*JOURNAL OF COMPETITION LAW & ECONOMICS*, published by the Oxford University Press, Oxford, United Kingdom:  
 Founding editor, 2004-present.

## E M P L O Y M E N T H I S T O R Y

GEORGETOWN UNIVERSITY, Washington, D.C.: Visiting Professor of Law, 2005-2007.

AMERICAN ENTERPRISE INSTITUTE FOR PUBLIC POLICY RESEARCH, Washington, D.C.: Resident Scholar and F.K. Weyerhaeuser Fellow in Law and Economics Emeritus, 2002-2005. Director, AEI Studies in Telecommunications Deregulation, 1992-1995. F.K. Weyerhaeuser Fellow in Law and Economics, 1995-2002. Resident Scholar, 1992-1995.

YALE UNIVERSITY, New Haven, Connecticut: Senior Lecturer, Yale School of Management, 1993-1999.

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FEDERAL COMMUNICATIONS COMMISSION, Washington, D.C.: Deputy General Counsel, 1987-1989.

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## AUTHORED BOOKS

*Broadband in Europe: How Can Brussels Wire the Information Society*, co-authored with Dan Maldoom, Richard Marsden, and Hal J. Singer (Springer 2005).

*Deregulatory Takings and the Regulatory Contract: The Competitive Transformation of Network Industries in the United States* (Cambridge University Press 1997), co-authored with Daniel F. Spulber. Chinese translation: Horizon Media Co. Ltd.

*Foreign Investment in American Telecommunications* (University of Chicago Press 1997).

*Protecting Competition from the Postal Monopoly* (AEI Press 1996), co-authored with Daniel F. Spulber.

*Transmission Pricing and Stranded Costs in the Electric Power Industry* (AEI Press 1995), co-authored with William J. Baumol.

*Toward Competition in Local Telephony* (MIT Press & AEI Press 1994), co-authored with William J. Baumol. Korean translation: Korea Information Society Development Institute 1996.

## EDITED BOOKS

*Competition and Regulation in Telecommunications: Examining Germany and America* (J. Gregory Sidak, Christoph Engel & Günter Knieps, editors, Kluwer Academic Press 2000).

*Is the Telecommunications Act of 1996 Broken? If So, How Can We Fix It?* (J. Gregory Sidak, editor, AEI Press 1999).

*Governing the Postal Service* (J. Gregory Sidak, editor, AEI Press 1994).

## JOURNAL ARTICLES

*Innovation Spillovers and the "Dirt Road" Fallacy: The Intellectual Bankruptcy of Banning Optional Transactions for Enhanced Delivery over the Internet*, 6 JOURNAL OF COMPETITION LAW & ECONOMICS 521 (2010), co-authored with David J. Teece.

*Dynamic Competition in Antitrust Law*, 5 JOURNAL OF COMPETITION LAW & ECONOMICS 581 (2009), co-authored with David J. Teece.

*Google and the Proper Antitrust Scrutiny of Orphan Books*, 5 JOURNAL OF COMPETITION LAW & ECONOMICS 411 (2009), co-authored with Jerry A. Hausman.

*Rewriting the Horizontal Merger Guidelines in the Name of Dynamic Competition*, 16 GEORGE MASON LAW REVIEW 885 (2009), co-authored with David J. Teece.

*Patent Holdup and Oligopsonistic Collusion in Standard Setting Organizations*, 5 JOURNAL OF COMPETITION LAW & ECONOMICS 123 (2009).

*Abolishing the Price Squeeze as a Theory of Antitrust Liability*, 4 JOURNAL OF COMPETITION LAW & ECONOMICS 279 (2008).

*Are Regulators Forward-Looking? The Market Price of Copper Versus the Regulated Price of Mandatory Access to Unbundled Local Loops in Telecommunications Networks*, 61 FEDERAL COMMUNICATIONS LAW JOURNAL 199 (2008), co-authored with Jerry A. Hausman and Timothy J. Tariff.

*Holdup, Royalty Stacking, and the Presumption of Injunctive Relief for Patent Infringement: A Reply to Lemley and Shapiro*, 92 MINNESOTA LAW REVIEW 713 (2008).



*Evaluating Market Power with Two-Sided Demand and Preemptive Offers to Dissipate Monopoly Rent: Lessons for High-Technology Industries from the Antitrust Division's Approval of the XM-Sirius Satellite Radio Merger*, 4 JOURNAL OF COMPETITION LAW & ECONOMICS 697 (2008), co-authored with Hal J. Singer.

*Should Antitrust Consent Decrees Regulate Post-Merger Pricing?*, 3 JOURNAL OF COMPETITION LAW & ECONOMICS 471 (2007), co-authored with Farrell Malone.

*Evaluating Market Power Using Competitive Benchmark Prices Instead of the Hirschman-Herfindahl Index*, 74 ANTITRUST LAW JOURNAL 387 (2007), co-authored with Jerry A. Hausman.

*Vertical Foreclosure in Video Programming Markets: Implications for Cable Operators*, 6 REVIEW OF NETWORK ECONOMICS 348 (2007), co-authored with Hal J. Singer, available at <http://www.rnejournal.com/index.html>.

*What Is the Network Neutrality Debate Really About?*, 1 INTERNATIONAL JOURNAL OF COMMUNICATIONS 377 (2007).

*Patent Damages and Real Options: How Judicial Characterization of Non-Infringing Alternatives Reduces Incentives to Innovate*, 22 BERKELEY TECHNOLOGY LAW JOURNAL 825 (2007), co-authored with Jerry A. Hausman and Gregory K. Leonard.

*Does Video Delivered Over a Telephone Network Require a Cable Franchise?*, 59 FEDERAL COMMUNICATIONS LAW JOURNAL 251 (2007), co-authored with Robert W. Crandall and Hal J. Singer.

*A Consumer-Welfare Approach to Network Neutrality Regulation of the Internet*, 2 JOURNAL OF COMPETITION LAW & ECONOMICS 349 (2006).

*When Does an Optional Tariff Not Lead to a Pareto Improvement? The Ambiguous Effects of Self-Selecting Nonlinear Pricing When Demand Is Interdependent or Firms Do Not Maximize Profit*, 2 JOURNAL OF COMPETITION LAW & ECONOMICS 285 (2006), co-authored with John C. Panzar.

*The Quasi War Cases—and Their Relevance to Whether “Letters of Marque and Reprisal” Constrain Presidential War Powers*, 27 HARVARD JOURNAL OF LAW & PUBLIC POLICY 465 (2005).

*The Future of the Postal Monopoly: American and European Perspectives After the Presidential Commission and Flamingo Industries*, 28 WORLD COMPETITION 163 (2005), co-authored with Damien Geradin.

*Did Mandatory Unbundling Achieve Its Purpose? Empirical Evidence from Five Countries*, 1 JOURNAL OF COMPETITION LAW & ECONOMICS 173 (2005), co-authored with Jerry A. Hausman.

*Überregulation without Economics: The World Trade Organization's Decision in the U.S.-Mexico Arbitration on Telecommunications Services*, 57 FEDERAL COMMUNICATIONS LAW JOURNAL 1 (2004), co-authored with Hal J. Singer.

*Do States Tax Wireless Services Inefficiently? Evidence on the Price Elasticity of Demand*, 24 VIRGINIA TAX REVIEW 249 (2004), co-authored with Allan T. Ingraham.

*Why Do the Poor and the Less-Educated Pay More for Long-Distance Calls?*, CONTRIBUTIONS IN ECONOMIC AND POLICY RESEARCH, vol. 3, issue 1, article 3 (2004), co-authored with Jerry A. Hausman, available at <http://www.bepress.com/bejeap/contributions/vol3/iss1/art3/>.

*Should Regulators Set Rates to Terminate Calls on Mobile Networks?*, 21 YALE JOURNAL ON REGULATION 261 (2004), co-authored with Robert W. Crandall.

*Competition Law for State-Owned Enterprises*, 71 ANTITRUST LAW JOURNAL 479 (2003), co-authored with David E. M. Sappington.

*An Economic Theory of Censorship*, 11 SUPREME COURT ECONOMIC REVIEW 81 (2003).

*Remedies and the Institutional Design of Regulation in Network Industries*, 2003 MICHIGAN STATE DCL LAW REVIEW 741 (2003).

*Interim Pricing of Local Loop Unbundling in Ireland: Epilogue*, 4 JOURNAL OF NETWORK INDUSTRIES 119 (2003), co-authored with Hal J. Singer.

*The Failure of Good Intentions: The WorldCom Fraud and the Collapse of American Telecommunications After Deregulation*, 20 YALE JOURNAL ON REGULATION 207 (2003).

*Mandatory Unbundling, UNE-P, and the Cost of Equity: Does TELRIC Pricing Increase Risk for Incumbent Local Exchange Carriers?*, 20 YALE JOURNAL ON REGULATION 389 (2003), co-authored with Allan T. Ingraham.

*Incentives for Anticompetitive Behavior by Public Enterprises*, 22 REVIEW OF INDUSTRIAL ORGANIZATION 183 (2003), co-authored with David E. M. Sappington.

*The Price of Experience: The Constitution After September 11, 2001*, 19 CONSTITUTIONAL COMMENTARY 37 (2002).

*Does Bell Company Entry into Long-Distance Telecommunications Benefit Consumers?*, 70 ANTITRUST LAW JOURNAL 463 (2002), co-authored with Jerry A. Hausman and Gregory K. Leonard.

*The Empirical Case Against Asymmetric Regulation of Broadband Internet Access*, 17 BERKELEY TECHNOLOGY LAW JOURNAL 953 (2002), co-authored with Robert W. Crandall and Hal J. Singer.

*The Pig in the Python: Is Lumpy Capacity Investment Used and Useful?*, 23 ENERGY LAW JOURNAL 383 (2002), co-authored with William J. Baumol.

*Exporting Telecommunications Regulation: The U.S.-Japan Negotiations on Interconnection Pricing*, 43 HARVARD INTERNATIONAL LAW JOURNAL 317 (2002), co-authored with Jeffrey H. Rohlfs.

*Is Structural Separation of Incumbent Local Exchange Carriers Necessary for Competition?*, 19 YALE JOURNAL ON REGULATION 335 (2002), co-authored with Robert W. Crandall.

*How Can Regulators Set Nonarbitrary Interim Rates? The Case of Local Loop Unbundling in Ireland*, 3 JOURNAL OF NETWORK INDUSTRIES 273 (2002), co-authored with Hal J. Singer.

*The Legislator-in-Chief*, 44 WILLIAM & MARY LAW REVIEW 1 (2002), co-authored with Vasan Kesavan.

*Capital Subsidies, Profit Maximization, and Acquisitions by Partially Privatized Telecommunications Carriers*, 26 TELECOMMUNICATIONS POLICY 287 (2002).

*Why Did the U.S. Telecommunications Industry Collapse?*, 28 INFOCOM REVIEW 17 (2002) (in Japanese).

*The Efficient Allocation of Proceeds from a Utility's Sale of Assets*, 22 ENERGY LAW JOURNAL 233 (2001), co-authored with Paul W. MacAvoy.

*Acquisitions by Partially Privatized Firms: The Case of Deutsche Telekom and VoiceStream*, 54 FEDERAL COMMUNICATIONS LAW JOURNAL 1 (2001).

*Antitrust Divestiture in Network Industries*, 68 UNIVERSITY OF CHICAGO LAW REVIEW 1 (2001), co-authored with Howard A. Shelanski.

*Mr. Justice Nemo's Social Statics*, 79 TEXAS LAW REVIEW 737 (2001).

*An Antitrust Rule for Software Integration*, 18 YALE JOURNAL ON REGULATION 1 (2001).

*Cable Modems and DSL: Broadband Internet Access for Residential Customers*, 91 AMERICAN ECONOMIC ASSOCIATION PAPERS AND PROCEEDINGS 302 (2001), co-authored with Jerry A. Hausman and Hal J. Singer.

*True God of the Next Justice*, 18 CONSTITUTIONAL COMMENTARY 9 (2001).

*Residential Demand for Broadband Telecommunications and Consumer Access to Unaffiliated Internet Content Providers*, 18 YALE JOURNAL ON REGULATION 129 (2001), co-authored with Jerry A. Hausman and Hal J. Singer.

*Are Public Enterprises the Only Credible Predators?*, 67 UNIVERSITY OF CHICAGO LAW REVIEW 271 (2000), co-authored with David E. M. Sappington.

*Innovation, Investment, and Unbundling*, 17 YALE JOURNAL ON REGULATION 1 (2000), co-authored with Thomas M. Jorde and David J. Teece.

*A Consumer-Welfare Approach to Mandatory Unbundling of Telecommunications Networks*, 109 YALE LAW JOURNAL 417 (1999), co-authored with Jerry A. Hausman.

*What Is Wrong with American Telecommunications?*, MULTIMEDIA UND RECHT, Mar. 1999, at 15, co-authored with Paul W. MacAvoy, reprinted in COMPETITION AND REGULATION IN TELECOMMUNICATIONS: EXAMINING GERMANY AND AMERICA (J. Gregory Sidak, Christoph Engel & Günter Knieps, editors, Kluwer Academic Press 2000).

*A General Framework for Competitive Analysis in Wireless Telecommunications*, 50 HASTINGS LAW JOURNAL 1639 (1999), co-authored with David J. Teece and Hal J. Singer.

*Essential Facilities*, 51 STANFORD LAW REVIEW 1185 (1999), co-authored with Abbott B. Lipsky, Jr. Spanish translation republished as *Facilidades esenciales*, 27 IUS ET VERITAS 126 (2004).

*The Petty Larceny of the Police Power*, 86 CALIFORNIA LAW REVIEW 655 (1998) (review essay).

*Deregulation and Managed Competition in Network Industries*, 15 YALE JOURNAL ON REGULATION 117 (1998), co-authored with Daniel F. Spulber.

*Cyberjam: The Law and Economics of Internet Congestion of the Telephone Network*, 21 HARVARD JOURNAL OF LAW & PUBLIC POLICY 337 (1998), co-authored with Daniel F. Spulber.

*Network Access Pricing and Deregulation*, 6 INDUSTRIAL AND CORPORATE CHANGE 757 (1997), co-authored with Daniel F. Spulber.

*Givings, Takings, and the Fallacy of Forward-Looking Costs*, 72 NEW YORK UNIVERSITY LAW REVIEW 1068 (1997), co-authored with Daniel F. Spulber.

*The Tragedy of the Telecommons: Government Pricing of Unbundled Network Elements Under the Telecommunications Act of 1996*, 97 COLUMBIA LAW REVIEW 1081 (1997), co-authored with Daniel F. Spulber.

*Monopoly and the Mandate of Canada Post*, 14 YALE JOURNAL ON REGULATION 1 (1997), co-authored with Daniel F. Spulber.

*Deregulatory Takings and Breach of the Regulatory Contract*, 71 NEW YORK UNIVERSITY LAW REVIEW 851 (1996), co-authored with Daniel F. Spulber.

*Pricing of Services Provided to Competitors by the Regulated Firm*, 3 HUME PAPERS ON PUBLIC POLICY, No. 3, at 15 (1995), co-authored with William J. Baumol.

*Stranded Costs*, 18 HARVARD JOURNAL OF LAW & PUBLIC POLICY 835 (1995), co-authored with William J. Baumol.

*The Line-Item Veto Amendment*, 80 CORNELL LAW REVIEW 1498 (1995).

*Competition and Regulatory Policies for Interactive Broadband Networks*, 68 SOUTHERN CALIFORNIA LAW REVIEW 1203 (1995), co-authored with Robert W. Crandall.

*The Pricing of Inputs Sold to Competitors: Rejoinder and Epilogue*, 12 YALE JOURNAL ON REGULATION 177 (1995), co-authored with William J. Baumol.

*The Pricing of Inputs Sold to Competitors*, 11 YALE JOURNAL ON REGULATION 171 (1994), co-authored with William J. Baumol.

*Telecommunications in Jericho*, 81 CALIFORNIA LAW REVIEW 1209 (1993) (review essay).

*War, Liberty, and Enemy Aliens*, 67 NEW YORK UNIVERSITY LAW REVIEW 1402 (1992).

*Why Did President Bush Repudiate the "Inherent" Line-Item Veto?*, 9 JOURNAL OF LAW & POLITICS 39 (1992), co-authored with Thomas A. Smith.

*The Inverse Coase Theorem and Declarations of War*, 41 DUKE LAW JOURNAL 325 (1991).

*To Declare War*, 41 DUKE LAW JOURNAL 27 (1991).

*Takeover Premiums, Appraisal Rights, and the Price Elasticity of a Firm's Publicly Traded Stock*, 25 GEORGIA LAW REVIEW 783 (1991), co-authored with Susan E. Woodward.

*Corporate Takeovers, the Commerce Clause, and the Efficient Anonymity of Shareholders*, 84 NORTHWESTERN UNIVERSITY LAW REVIEW 1092 (1990), co-authored with Susan E. Woodward.

*Four Faces of the Item Veto: A Reply to Tribe and Kurland*, 84 NORTHWESTERN UNIVERSITY LAW REVIEW 437 (1990), co-authored with Thomas A. Smith.

*The President's Power of the Purse*, 1989 DUKE LAW JOURNAL 1162.

*The Recommendation Clause*, 77 GEORGETOWN LAW JOURNAL 2079 (1989).

*The "New Payola" and the American Record Industry: Transactions Costs and Precautionary Ignorance in Contracts for Illicit Services*, 10 HARVARD JOURNAL OF LAW & PUBLIC POLICY 521 (1987), co-authored with David E. Kronemyer.

*Debunking Predatory Innovation*, 83 COLUMBIA LAW REVIEW 1121 (1983).

*A Framework for Administering the 1916 Antidumping Act: Lessons from Antitrust Economics*, 18 STANFORD JOURNAL OF INTERNATIONAL LAW 377 (1982).

*Antitrust Preliminary Injunctions in Hostile Tender Offers*, 30 KANSAS LAW REVIEW 491 (1982).

*The Deterrent Effect of Antitrust Enforcement*, 89 JOURNAL OF POLITICAL ECONOMY 429 (1981), co-authored with Michael K. Block and Frederick C. Nold.

*Rethinking Antitrust Damages*, 33 STANFORD LAW REVIEW 329 (1981) (student note).

*The Cost of Antitrust Deterrence: Why Not Hang a Price Fixer Now and Then?*, 68 GEORGETOWN LAW JOURNAL 1131 (1980), co-authored with Michael K. Block.

#### CHAPTERS IN BOOKS

*Favouring Dynamic Competition over Static Competition in Antitrust Law*, in INTELLECTUAL PROPERTY, COMPETITION LAW AND ECONOMICS IN ASIA 53 (R. Ian McEwin, ed., Hart Publishing 2011), co-authored with David J. Teece.

*Telecommunications Regulation: Current Approaches with the End in Sight*, in ECONOMIC REGULATION AND ITS REFORM: WHAT HAVE WE LEARNED? (Nancy L. Rose, ed., National Bureau of Economic Research & University of Chicago Press, forthcoming), co-authored with Jerry A. Hausman, available at [http://www.nber.org/books\\_in\\_progress/econ-reg/index.html](http://www.nber.org/books_in_progress/econ-reg/index.html).

*An Antitrust Analysis of the World Trade Organization's Decision in the U.S.-Mexico Arbitration on Telecommunications Services*, in HANDBOOK OF TRANS-ATLANTIC ANTITRUST 679 (Philip Marsden ed. Edward Elgar 2006), co-authored with Hal J. Singer.

*European and American Approaches to Antitrust Remedies and the Institutional Design of Regulation in Telecommunications*, in THE HANDBOOK OF TELECOMMUNICATIONS ECONOMICS, volume 2 (Martin Cave, Sumit Kumar Majumdar & Ingo Vogelsang, eds. North-Holland 2006), co-authored with Damien Geradin.

*Remedies in Network Industries—A View from the United States*, in REMEDIES IN NETWORK INDUSTRIES: EC COMPETITION LAW VS. SECTOR-SPECIFIC REGULATION 255 (Damien Geradin ed., Intersentia 2004).

*Competition Law for State-Owned Enterprises*, in COMPETING WITH THE GOVERNMENT: ANTICOMPETITIVE BEHAVIOR AND PUBLIC ENTERPRISES (Rick Geddes ed., Hoover Institution Press 2004), co-authored with David E. M. Sappington.

*The Failure of Good Intentions: The Collapse of American Telecommunications After Six Years of Deregulation*, in SUCCESS AND FAILURES IN REGULATING AND DEREGULATING UTILITIES: EVIDENCE FROM THE UK, EUROPE AND THE USA 1 (Colin Robinson ed., Edward Elgar 2004).

*What Is Wrong with American Telecommunications?*, in COMPETITION AND REGULATION IN TELECOMMUNICATIONS: EXAMINING GERMANY AND AMERICA (J. Gregory Sidak, Christoph Engel & Günter Knieps, editors, Kluwer Academic Press 2000), co-authored with Paul W. MacAvoy.

*The Dismal Science of Law*, 1992 PUBLIC INTEREST LAW REVIEW 121 (book review of DANIEL A. FARBER & PHILIP P. FRICKEY, LAW AND PUBLIC CHOICE: A CRITICAL INTRODUCTION (1991)).

*The Economic Perspective on Broadcasting Regulation*, in THE NATIONAL ECONOMISTS CLUB READER 15 (Richard T. Gill ed. 1991).

*Two Factors That Reduce Record Company Profitability*, 1987 ENTERTAINMENT, PUBLISHING AND THE ARTS HANDBOOK 371, co-authored with David E. Kronemyer.

*Risk and Responsibility*, in 1987 ECONOMIC REPORT OF THE PRESIDENT 179, co-authored with Stephen J. DeCanio, Arlene S. Holen, and Susan E. Woodward.

*The Structure and Performance of the U.S. Record Industry*, 1986 ENTERTAINMENT, PUBLISHING AND THE ARTS HANDBOOK 263, co-authored with David E. Kronemyer.

#### NEWSPAPER, MAGAZINE, AND WEBSITE ARTICLES

*Foxes in the Henhouse: FCC Regulation through Merger Review*, MILKEN INSTITUTE REVIEW, vol. 10, no. 1, Jan. 2008, at 46, co-authored with Hal J. Singer.

*Trusting the Antitrust Laws: Sirius and XM Are No Different*, NATIONAL REVIEW ONLINE, Oct. 3, 2007, <http://article.nationalreview.com/?q=Zjk5NTJjNjc1MjE1ZjUwZjBiMDQ0YWNjNjRlYjFhNTk=>.

*Misunderstanding the XM/Sirius Merger*, WASHINGTON TIMES, Aug. 24, 2007, co-authored with Hal J. Singer.

*Network Neutrality: Should Congress Require Broadband Providers to Treat Similar Types of Internet Traffic Equally?*, CONGRESSIONAL DIGEST, vol. 86, no. 2, at 57 (Feb. 2007).

*The F.C.C.'s Duty*, NEW YORK TIMES, Oct. 8, 2002, at A31.

*Should Consumers Pay the "Stranded Costs" of Utility Companies?*, INSIGHT, Nov. 9, 1998, at 24.

*Voters Should Back State's Besieged Law on Retail Competition*, BOSTON SUNDAY HERALD, May 24, 1998, at 25.

*Avoiding America's Regulatory Mistakes in Hong Kong's Telecoms Market*, HONG KONG ECONOMIC JOURNAL, Aug. 29, 1997 (in Cantonese).

*Telecommunications: America's Investment Xenophobia*, JOURNAL OF COMMERCE, Aug. 22 1997, at 8A

*The line-item veto: two views; Next stop: Supreme Court*, JOURNAL OF COMMERCE, Aug. 20, 1997, at 9A.

*Antitrust and the Federal Software Commission*, JOBS & CAPITAL, vol. 6, at 18 (winter 1997).

*Stranded Cost Recovery Benefits Consumers*, REGULATION, 1996 no. 2, at 12 (1996), co-authored with William J. Baumol.

*Let Utilities Recover Stranded Costs*, WALL STREET JOURNAL, June 17, 1996, at A15, co-authored with William J. Baumol.

*Competition and the Postal Service*, THE AMERICAN ENTERPRISE, vol. 7, no. 3, at 74 (May/June 1996).

*When Competition Amounts to Taking*, NATIONAL LAW JOURNAL, Apr. 1, 1996, at A19.

*Post Office Monopoly: Unfair Market Practice*, NATIONAL LAW JOURNAL, Oct. 23, 1995, at A23.

*The Unregulated Infobahn*, JOBS & CAPITAL, vol. 4, at 28 (summer 1995), co-authored with Robert W. Crandall, reprinted in Australia in POLICY, vol. 11, no. 2, at 9 (winter 1995).

*Stranded Cost Recovery: Fair and Reasonable*, PUBLIC UTILITIES FORTNIGHTLY, May 15, 1995, at 20, co-authored with William J. Baumol.

*Telecommunications: Unleashing the Industry*, THE AMERICAN ENTERPRISE, vol. 5, no. 5, at 42 (Sept./Oct. 1994).

*Don't Stifle Global Merger Mania*, WALL STREET JOURNAL, July 6, 1994, at A18.

*Telecommunications: The Big Picture*, ROLL CALL, June 27, 1994, at 4 (supp.).

*Broadcast News*, THE AMERICAN ENTERPRISE, vol. 3, no. 2, at 70 (Mar./Apr. 1992).

*The Veto Power: How Free Is the President's Hand?*, THE AMERICAN ENTERPRISE 58, vol. 2, no. 2 (Mar./Apr. 1991), co-authored with Thomas A. Smith.

*Spending Riders Would Unhobble the Executive*, WALL STREET JOURNAL, November 2, 1989, at A18, col. 3.

*How Congress Erodes the Power of the Presidency: The Appropriations Muzzle*, WALL STREET JOURNAL, Feb. 6, 1989, at A8, col. 3.

*Marketplace Solution to Midair Collisions*, WALL STREET JOURNAL, Mar. 2, 1987, at 20, col. 3.

#### MEDIA INTERVIEWS

*Microsoft-Yahoo Merger Faces Antitrust Hurdles*, ALL THINGS CONSIDERED, NATIONAL PUBLIC RADIO, Feb. 2, 2008, available at <http://www.npr.org/templates/story/story.php?storyId=18636379> (interviewed by Andrea Seabrook).

#### MISCELLANEOUS PUBLICATIONS

*Is Harm Ever Irreparable?* (Tilburg University 2011) (inaugural address).

*The Economics of Mail Delivery: A Comment*, in GOVERNING THE POSTAL SERVICE 14 (J. Gregory Sidak, ed., AEI Press 1994).

*The Appropriations Power and the Necessary and Proper Clause*, 68 WASHINGTON UNIVERSITY LAW QUARTERLY 651 (1990) (questioner for symposium panel discussion).

TESTIMONY, REPORTS,  
AND BRIEFS *AMICUS CURIAE*

Declaration of Economists and Antitrust Scholars on Behalf of Radiomóvil Dipsa S.A. de C.V. (Telcel), Reconsideration Recourse, RA-007-2011, Case File No. DE-37-2006, Comisión Federal de Competencia (Republic of Mexico) (Oct. 14, 2011), co-authored with Robert H. Bork, Michael J. Boskin, Kenneth G. Elzinga, Paul W. MacAvoy, George L. Priest, Pablo T. Spiller, Daniel F. Spulber, and David J. Teece.

Deposition of J. Gregory Sidak, In the Matter of Certain Reduced Ignition Proclivity Cigarette Paper Wrappers and Products Containing Same, Investigation No. 337-TA-756, U.S. International Trade Commission (Aug. 3, 2011) (on behalf of Astra Tobacco Corp., Delfortgroup AG, Dosal Tobacco Corp., Farmer's Tobacco Co., S&M Brands, Inc., and Tantus Tobacco LLC) (subject to protective order).

Deposition of J. Gregory Sidak, *EchoStar Satellite L.L.C. v. ESPN, Inc., et al.*, Index No. 08-600282, Supreme Court of New York, County of New York (July 29, 2011) (on behalf of ESPN and other Disney companies) (subject to protective order).

Expert Report of J. Gregory Sidak on behalf of Astra Tobacco Corp., Delfortgroup AG, Dosal Tobacco Corp., Farmer's Tobacco Co., S&M Brands, Inc., and Tantus Tobacco LLC, In the Matter of Certain Reduced Ignition Proclivity Cigarette Paper Wrappers and Products Containing Same, Investigation No. 337-TA-756, U.S. International Trade Commission (filed July 7, 2011) (subject to protective order).

Rebuttal Testimony of J. Gregory Sidak on behalf of Hypercube Telecom, LLC, *in* In re DeltaCom, Inc. v. KMC Data LLC and Hypercube Telecom, LLC, Public Service Commission of Alabama, Dkt. No. 31176 (filed July 28, 2010) (subject to protective order).

Rebuttal Testimony of J. Gregory Sidak on behalf of Hypercube Telecom, LLC, *in* In re DeltaCom, Inc. v. KMC Data LLC and Hypercube Telecom, LLC, Public Service Commission of Florida, Dkt. No. 090327-TP (filed July 9, 2010) (subject to protective order).

Direct Testimony of J. Gregory Sidak on behalf of Hypercube Telecom, LLC, *in* In re DeltaCom, Inc. v. KMC Data LLC and Hypercube Telecom, LLC, Public Service Commission of Alabama, Dkt. No. 31176 (filed July 7, 2010) (subject to protective order).

Direct Testimony of J. Gregory Sidak on behalf of Hypercube Telecom, LLC, *in* In re DeltaCom, Inc. v. KMC Data LLC and Hypercube Telecom, LLC, Public Service Commission of Florida, Dkt. No. 090327-TP (filed June 15, 2010) (subject to protective order).

Innovation Spillovers and the "Dirt Road" Fallacy: The Intellectual Bankruptcy of Banning Optional Transactions for Enhanced Delivery over the Internet, co-authored with David J. Teece, *appended to* Reply Comments of AT&T Inc., Federal Communications Commission, In the Matter of Preserving the Open Internet Broadband Industry Practices, GN Dkt. No. 09-191, WC Dkt. No. 07-52 (filed Apr. 26, 2010).

Declaration of J. Gregory Sidak on behalf of Hypercube Telecom, LLC, in Hypercube Telecom, LLC v. Level 3 Communications, LLC, Public Utilities Commission of California, Case 09-05-009 (filed Jan. 11, 2010).

Is Regulation of Access and Interconnection Necessary for Bermuda's Telecommunications Markets to Achieve Effectively Competitive Outcomes?, Response to Access and Interconnection in Bermuda Consultation Paper (6 Oct. 2009), Ministry of Energy, Telecommunications, and E-Commerce, Government of Bermuda (filed Nov. 17, 2009), on behalf of The Bermuda Telephone Company Limited.

Comments of J. Gregory Sidak and David J. Teece, Horizontal Merger Guidelines Review Project, Federal Trade Commission & U.S. Department of Justice, Project No. P092900 (filed Nov. 9, 2009).

Letter of J. Gregory Sidak to Jonathan Daniels, Esq., Vice President, Regulatory Law, Bell Canada (Mar. 11, 2009), *attached to* Petition to the Governor in Council to Vary Telecom Decision CRTC 2008-117, Cybersurf Corp.'s Application Related to Matching Service Speed Requirements for Wholesale Internet Services, and to Rescind Telecom Order CRTC 2009-111, Cybersurf's Application Related to the Implementation of Telecom Decision 2008-117 Regarding the Matching Speed Requirement by Bell Aliant and Bell Canada (filed Mar. 11, 2009) (on behalf of Bell Canada).

Rebuttal Declaration of J. Gregory Sidak on behalf of Nichia Corporation, Panasonic Communications Co., Ltd., Panasonic Corporation, La Cie, Ltd., Hitachi Ltd., and Hitachi America, Ltd., In the Matter of Certain Short Wavelength Semiconductor Lasers and Products Containing the Same, U.S. International Trade Commission, Investigation No. 337-TA-627 (filed Dec. 12, 2008).

Brief of *Amici Curiae* Professors and Scholars in Law and Economics in Support of the Petitioners, Pacific Bell Telephone Co. v. linkLine Communications, Inc., Supreme Court of the United States, No. 07-512 (filed Sept. 4, 2008) (brief on behalf of William J. Baumol, Robert H. Bork, Robert W. Crandall, George Daly, Harold Demsetz, Jeffrey A. Eisenach, Kenneth G. Elzinga, Richard A. Epstein, Gerald Faulhaber, Franklin M. Fisher, Charles J. Goetz, Robert Hahn, Jerry A. Hausman, Keith N. Hylton, Thomas M. Jorde, Robert E. Litan, Paul W. MacAvoy, Sam Peltzman, J. Gregory Sidak, Pablo T. Spiller, and Daniel F. Spulber), *available at* [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1264103](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1264103) (merits brief).

Declaration of J. Gregory Sidak on behalf of ATCO Utilities in In the Matter of Review of Rate Related Implications of Utility Asset Dispositions Following the Supreme Court's Calgary Stores Block Decision (The Utility Asset Disposition Rate Review Proceeding), Alberta Utilities Commission, Application No. 1566373, Proceeding ID. No. 20 (filed Aug. 25, 2008).

The Static and Dynamic Inefficiency of Abandoning Unrestricted Auctions for Spectrum: A Critique of Professor Wilkie's Analysis of the M2Z Proposal (July 2008), co-authored with Robert W. Hahn, Allan T. Ingraham & Hal J. Singer (commissioned by CTIA).

Fourth Supplemental Declaration of J. Gregory Sidak on behalf of the Consumer Coalition for Competition in Satellite Radio Concerning the Competitive Consequences of the Proposed Merger of Sirius Satellite Radio, Inc. and XM Satellite Radio, Inc., Federal Communications Commission, MB Dkt. 07-57 (Jan. 23, 2008).

Brief of *Amici Curiae* Professors and Scholars in Law and Economics in Support of the Petitioners, Pacific Bell Telephone Co. v. linkLine Communications, Inc., Supreme Court of the United States, No. 07-512 (filed Nov. 16, 2007) (brief on behalf of William J. Baumol, Robert H. Bork, Robert W. Crandall, George Daly, Harold Demsetz, Jeffrey A. Eisenach, Kenneth G. Elzinga, Gerald Faulhaber, Franklin M. Fisher, Charles J. Goetz, Robert Hahn, Jerry A. Hausman, Thomas M. Jorde, Robert E. Litan, Paul W. MacAvoy, J. Gregory Sidak, Pablo T. Spiller, and Daniel F. Spulber), *available at* [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1030990](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1030990).

Third Supplemental Declaration of J. Gregory Sidak on behalf of the Consumer Coalition for Competition in Satellite Radio Concerning the Competitive Consequences of the Proposed Merger of Sirius Satellite Radio, Inc. and XM Satellite Radio, Inc., Federal Communications Commission, MB Dkt. 07-57 (Oct. 1, 2007).

Declaration of J. Gregory Sidak on behalf of United Parcel Service, United States Postal Service Study, Project No. P071200, Federal Trade Commission (filed Aug. 6, 2007).

Second Supplemental Declaration of J. Gregory Sidak on behalf of the Consumer Coalition for Competition in Satellite Radio Concerning the Competitive Consequences of the Proposed Merger of Sirius Satellite Radio, Inc. and XM Satellite Radio, Inc., Federal Communications Commission, MB Dkt. 07-57 (July 24, 2007).

Supplemental Declaration of J. Gregory Sidak on behalf of the Consumer Coalition for Competition in Satellite Radio Concerning the Competitive Consequences of the Proposed Merger of Sirius Satellite Radio, Inc. and XM Satellite



Radio, Inc., Federal Communications Commission, MB Dkt. 07-57 (July 9, 2007).

U.S. Federal Trade Commission & U.S. Department of Justice, Sherman Act Section 2 Joint Hearing Understanding Single-Firm Behavior: Conduct as Related to Competition (May 8, 2007) (Deborah Platt Majoras & Thomas Barnett, moderators) (panel discussion among Susan Creighton, Jeffrey Eisenach, Timothy Muris, Robert Pitofsky, Douglas Melamed, James Rill, Charles F. (Rick) Rule, and J. Gregory Sidak), available at <http://www.ftc.gov/os/sectiontwohearings/docs/070508trans.pdf>.

Direct and Cross Examination Testimony of J. Gregory Sidak, *RLH Industries, Inc. v. SBC Communications, Inc.*, Case No. 02 CC 16869, Superior Court of California for the County of Orange, California (Mar. 19, 2007) (expert testimony for SBC Communications in antitrust litigation).

Expert Declaration of J. Gregory Sidak on behalf of the Consumer Coalition for Competition in Satellite Radio Concerning the Competitive Consequences of the Proposed Merger of Sirius Satellite Radio, Inc. and XM Satellite Radio, Inc., Federal Communications Commission, MB Dkt. 07-57 (Mar. 16, 2007).

The Economic Effect of Granting the Alberta Energy and Utilities Board Authority to Direct the Disposition of Proceeds When a Public Utility Divests Assets (Mar. 2007) (prepared for ATCO Gas), co-authored with Paul W. MacAvoy.

Cross Examination Testimony of J. Gregory Sidak on behalf of the Newspaper Association of America, Postal Rate Commission, Postal Rate and Fee Change, 2006, Dkt. No. R2006-1 (Nov. 29, 2006).

Rebuttal Testimony of J. Gregory Sidak on behalf of the Newspaper Association of America, Postal Rate Commission, Postal Rate and Fee Change, 2006, Dkt. No. R2006-1 (filed Nov. 20, 2006).

Direct Testimony of J. Gregory Sidak on behalf of the Newspaper Association of America, Postal Rate Commission, Postal Rate and Fee Change, 2006, Dkt. No. R2006-1 (filed Sept. 5, 2006).

VIDEO GAMES: SERIOUS BUSINESS FOR AMERICA'S ECONOMY, co-authored with Robert W. Crandall (2006) (commissioned by the Entertainment Software Association).

Testimony of J. Gregory Sidak on Net Neutrality, Committee on Commerce, Science, and Transportation, United States Senate, Feb. 7, 2006.

Cross Examination Testimony of J. Gregory Sidak on behalf of Public Service Electric and Gas Company on the Appropriation of Non-Regulated, Generation-Related Merger Synergies and Asset Transfer Proceeds to Fund Rate Reductions, In the Matter of the Joint Petition of Public Service Electric and Gas Company and Exelon Corporation for Approval of a Change in Control of Public Service Electric and Gas Company, and Related Authorizations, New Jersey Board of Public Utilities, BPU Dkt. No. EM05020106, OAL Dkt. No. PUC-1874-05, JP-36 (Jan. 11, 2006).

Rebuttal Testimony of J. Gregory Sidak on behalf of Public Service Electric and Gas Company on the Appropriation of Non-Regulated, Generation-Related Merger Synergies and Asset Transfer Proceeds to Fund Rate Reductions, In the Matter of the Joint Petition of Public Service Electric and Gas Company and Exelon Corporation for Approval of a Change in Control of Public Service Electric and Gas Company, and Related Authorizations, New Jersey Board of Public Utilities, BPU Dkt. No. EM05020106, OAL Dkt. No. PUC-1874-05, JP-36 (filed Dec. 12, 2005).

Cross Examination Testimony of J. Gregory Sidak on behalf of Videsh Sanchar Nigam Limited, In the Matter of Flag Telecom Group Limited, Claimant, Videsh Sanchar Nigam Limited, Respondent, Case No. 13 638/JNK/EBS, International Court of Arbitration, International Chamber of Commerce, The Hague (Nov. 18, 2005).

Reply Declaration of J. Gregory Sidak and Hal J. Singer on behalf of TCR Sports Broadcasting Holding, L.L.P., In the Matter of Applications for Consent to the Assignment and/or Transfer of Control of Licenses Adelphia Communications Corporation, (and subsidiaries, debtors-in-possession), Assignors, to Time Warner Cable Inc. (subsidiaries), Assignees; Adelphia Communications Corporation, (and subsidiaries, debtors-in-possession), Assignors and Transferors, to Comcast Corporation (subsidiaries), Assignees and Transferees; Comcast Corporation, Transferor, to Time Warner Inc., Transferee; Time Warner Inc., Transferor to Comcast Corporation, Transferee, Federal

Communications Commission, MB Dkt. No. 05-192 (filed Nov. 14, 2005) (filed on behalf of the holding company for the Baltimore Orioles baseball team).

Expert Report of J. Gregory Sidak on behalf of eircom P.L.C., in Market Requirements Document: Local Loop Unbundling: High Level Statement of Requirements Document, ComReg: 05/04, Commission for Communications Regulation, Republic of Ireland (filed Oct. 24, 2005).

Declaration of J. Gregory Sidak and Hal J. Singer on behalf of the Power Mobility Coalition in *Power Mobility Coalition v. Leavitt*, Case No. 1:05CV02027 (filed D.D.C. Oct. 13, 2005) (in support of plaintiff's motion for preliminary injunction concerning proposed changes in Medicare rules concerning patient reimbursement for power mobility devices).

Expert Report of J. Gregory Sidak on behalf of Telstra Corporation Ltd., In the Matter of Assessment of Telstra's Unconditioned Local Loop Service and Line Sharing Service Monthly Charge Undertakings, Australian Competition and Consumer Commission (filed Sept. 23, 2005).

Expert Report of J. Gregory Sidak on behalf of Videsh Sanchar Nigam Limited, In the Matter of Flag Telecom Group Limited, Claimant, Videsh Sanchar Nigam Limited, Respondent, Case No. 13 638/JNK/EBS, International Court of Arbitration, International Chamber of Commerce, The Hague (filed Sept. 16, 2005).

Supplemental Testimony of J. Gregory Sidak on behalf of PECO Energy Company, Joint Application of PECO Energy Company and Public Service Electric and Gas Company for Approval of the Merger of Public Service Enterprise Group Incorporated with and into Exelon Corporation, Pennsylvania Public Utility Commission, Dkt. No. A-110550F0160 (filed Aug. 26, 2005).

Rebuttal Testimony of J. Gregory Sidak on behalf of PECO Energy Company, Concerning the Appropriation of Non-Regulated, Generation-Related Merger Synergies and Asset Sale Proceeds to Fund Rate Reductions by PECO Energy Company, Joint Application of PECO Energy Company and Public Service Electric and Gas Company for Approval of the Merger of Public Service Enterprise Group Incorporated with and into Exelon Corporation, Pennsylvania Public Utility Commission, Dkt. No. A-110550F0160 (filed July 29, 2005).

Declaration of J. Gregory Sidak and Hal J. Singer on behalf of TCR Sports Broadcasting Holding, L.L.P., In the Matter of Applications for Consent to the Assignment and/or Transfer of Control of Licenses Adelpia Communications Corporation, (and subsidiaries, debtors-in-possession), Assignors, to Time Warner Cable Inc. (subsidiaries), Assignees; Adelpia Communications Corporation, (and subsidiaries, debtors-in-possession), Assignors and Transferors, to Comcast Corporation (subsidiaries), Assignees and Transferees; Comcast Corporation, Transferor, to Time Warner Inc., Transferee; Time Warner Inc., Transferor to Comcast Corporation, Transferee, Federal Communications Commission, MB Dkt. No. 05-192 (filed July 21, 2005) (filed on behalf of the holding company for the Baltimore Orioles baseball team).

Deposition of J. Gregory Sidak, *RLH Industries, Inc. v. SBC Communications, Inc.*, Case No. 02 CC 16869, Superior Court of California for the County of Orange, California (Sept. 2, 2004) (expert testimony for SBC Communications in antitrust litigation).

A Critical Review of Europe Economics' Proposed Model for Estimating Operating Costs for a Hypothetically Efficient Irish Telecommunications Carrier (prepared for eircom P.L.C. for submission to the Commission for Communications Regulation, Republic of Ireland, Mar. 2004), co-authored with Jerry A. Hausman.

Competition in Broadband Provision and Its Implications for Regulatory Policy (prepared on behalf of the Brussels Round Table (Alcatel, BT, Deutsche Telekom, Ericsson, France Telecom, Siemens, Telefónica de España, and Telecom Italia) for submission to the European Commission, Oct. 15, 2003), co-authored with Dan Maldoom, Richard Marsden, and Hal J. Singer.

Expert Report of J. Gregory Sidak, Arbitration Between Levicom International Holdings BV, Levicom Investments Curaçao NV, Claimants, and Tele2 Sverige AB, Tele2 AB, Respondents, Arbitration No: 2392, London Court of International Arbitration (filed July 25, 2003).

Declaration of J. Gregory Sidak on behalf of the National Association of Broadcasters, Application of General Motors

Corporation, Hughes Electronics Corporation, Transferors, and The News Corporation Limited, Transferee, For Authority to Transfer Control, Federal Communications Commission, MB Dkt. No. 03-124 (filed June 20, 2003).

Is State Taxation of the Wireless Industry Counterproductive? (prepared for Verizon Wireless Apr. 2, 2003).

Improving the U.S. Postal Service as a Public Service Government Agency (prepared for the Newspaper Association of America for submission to the Presidential Commission on the United States Postal Service, Apr. 2003).

An Economic Assessment of the Industry Advisory Group's Final Report to the Commission for Communications Regulation on Interim Pricing for Local Loop Unbundling in Ireland (prepared for eircom P.L.C. for submission to the Commission for Communications Regulation, Republic of Ireland, Feb. 14, 2003).

Declaration of J. Gregory Sidak on behalf of Qwest Corporation, In the Matter of the Complaint of the Minnesota Department of Commerce Against Qwest Corporation Regarding Unfiled Agreements, Minnesota Public Utilities Commission, Dkt. No. P-421/C-02-197 (filed Nov. 8, 2002).

*Telecommunications and Trade Promotion Authority: Meaningful Market Access Goals for Telecommunications Services in International Trade Agreements: Hearing before the Subcommittee on Commerce, Trade, and Consumer Protection of the Committee on Energy and Commerce, U.S. House of Representatives, 107th Cong., 2d Sess. (Oct. 9, 2002).*

The Economic Benefits of Permitting Winning Bidders to Opt Out of Auction 35 (prepared for Verizon Communications, Aug. 26, 2002).

Letter Concerning Spectrum Auction 35 to the Honorable Michael K. Powell, Chairman, Federal Communications Commission, from Peter C. Cramton, Robert W. Crandall, Robert W. Hahn, Robert G. Harris, Jerry A. Hausman, Thomas W. Hazlett, Douglas G. Lichtman, Paul W. MacAvoy, Paul R. Milgrom, Richard Schmalensee, J. Gregory Sidak, Hal J. Singer, Vernon L. Smith, William Taylor, and David J. Teece (Aug. 16, 2002).

Reply Declaration of J. Gregory Sidak on behalf of the National Association of Broadcasters, Application of EchoStar Communications Corporation, General Motors Corporation, Hughes Electronics Corporation, Transferors, and EchoStar Communications Corporation, Transferee, For Authority to Transfer Control, Federal Communications Commission, CS Dkt. No. 01-348 (filed Apr. 24, 2002).

Declaration of J. Gregory Sidak on behalf of the National Association of Broadcasters, Application of EchoStar Communications Corporation, General Motors Corporation, Hughes Electronics Corporation, Transferors, and EchoStar Communications Corporation, Transferee, For Authority to Transfer Control, Federal Communications Commission, CS Dkt. No. 01-348 (filed Feb. 4, 2002).

Replying Affidavit of J. Gregory Sidak, *eircom P.L.C. v. Director of Telecommunications Regulation*, No. 2001 No. 539 JR, High Court of the Republic of Ireland (filed on behalf of *eircom plc*, Dec. 12, 2001).

Declaration of Robert W. Crandall and J. Gregory Sidak on behalf of SBC Communications Inc., In the Matter of SBC Petition for Expedited Ruling that It Is Non-Dominant in Its Provision of Advanced Services and for Forbearance from Dominant Carrier Regulation of Those Services, Federal Communications Commission (filed Oct. 1, 2001).

Declaration of J. Gregory Sidak and Hal J. Singer on behalf of The Walt Disney Company, *et al.*, In the Matter of Nondiscrimination in the Distribution of Interactive Television Services over Cable, Notice of Inquiry, Federal Communications Commission, CS Dkt. No. 01-7 (filed May 11, 2001).

Expert Report of J. Gregory Sidak, *Arista Records, Inc. v. MP3Board, Inc.*, No. 00 Civ. 4660 (SAS) (S.D.N.Y. filed Mar. 28, 2001) (report on behalf of various record companies in copyright infringement litigation).

Declaration of J. Gregory Sidak on behalf of Deutsche Telekom AG, In the Matter of VoiceStream Wireless Corporation and Powertel, Inc., Transferors, and Deutsche Telekom AG, Transferee, Federal Communications Commission, IB Dkt. No. 00-187 (filed Jan. 8, 2001).

*Foreign Government Ownership of American Telecommunications Companies, Hearings before the Subcommittee on Telecommunications, Trade, and Consumer Protection of the Committee on Commerce, U.S. House of Representatives, 106th Cong., 2d Sess. 101 (Sept. 7, 2000) (testimony on behalf of Deutsche Telekom AG).*

Declaration of J. Gregory Sidak on behalf of U S WEST Communications, Inc., *U S WEST Communications, Inc. v. United States*, No. 00-43, U.S. Court of Federal Claims (filed May 17, 2000).

Declaration of J. Gregory Sidak on behalf of United Parcel Service, In the Matter of Predatory Pricing Complaint Against Deutsche Post AG, Commission of the European Communities Directorate-General, Competition, Bruxelles (filed Feb. 11, 2000).

Ex Parte Reply Declaration of Jerry A. Hausman and J. Gregory Sidak on behalf of GTE Corporation, In the Matter of Applications for Consent to the Transfer of Control of Licenses, MediaOne Group, Inc., Transferor, To AT&T Corp., Transferee, Federal Communications Commission, CS Dkt. No. 99-251 (filed Nov. 1, 1999).

Declaration of Daniel L. Rubinfeld and J. Gregory Sidak on behalf of GTE Corporation, In the Matter of Applications for Consent to the Transfer of Control of Licenses, MediaOne Group, Inc., Transferor, To AT&T Corp., Transferee, Federal Communications Commission, CS Dkt. No. 99-251 (filed Aug. 23, 1999).

Reply Affidavit of Jerry A. Hausman and J. Gregory Sidak, appended to Comments of BellSouth Corporation *in* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Second Further Notice of Proposed Rulemaking, Federal Communications Commission, CC Dkt. No. 96-98 (filed June 10, 1999).

Declaration of J. Gregory Sidak on behalf of Telecom Eireann, In the Matter of Local Loop Unbundling, Consultation Paper, Document No. ODTR 99/21, Office of the Director of Telecommunications Regulation, Republic of Ireland (filed June 8, 1999).

Affidavit of Jerry A. Hausman and J. Gregory Sidak, appended to Comments of the United States Telephone Association *in* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Second Further Notice of Proposed Rulemaking, Federal Communications Commission, CC Dkt. No. 96-98 (filed May 26, 1999).

Affidavit of Thomas M. Jorde, J. Gregory Sidak, and David J. Teece, appended to Comments of the United States Telephone Association *in* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Second Further Notice of Proposed Rulemaking, Federal Communications Commission, CC Dkt. No. 96-98 (filed May 26, 1999).

Prepared Statement of J. Gregory Sidak, Local Broadcast Ownership: An En Banc Hearing, Federal Communications Commission (Feb. 12, 1999).

Opinion of Law Concerning Initial Comments of Various Parties in *Direct Access to the INTELSAT System*, filed on behalf of Comsat Corporation in Direct Access to the INTELSAT System, Notice of Proposed Rulemaking, Federal Communications Commission, IB Dkt. No. 98-192 (filed Jan. 29, 1999).

Declaration of J. Gregory Sidak and David J. Teece on behalf of GTE Corporation in 1998 Biennial Regulatory Review of Spectrum Aggregation Limits for Wireless Telecommunications Carriers, Cellular Telecommunications Industry Association's Petition for Forbearance From the 45 MHz CMRS Spectrum Cap, Amendment of Parts 20 and 24 of the Commission's Rules of Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap Implementation of Sections 3(n) and 332 of the Communications Act Regulatory Treatment of Mobile Services, Notice of Proposed Rulemaking, Federal Communications Commission, WT Dkt. Nos. 98-205, 96-59, GN Dkt. No. 93-252 (filed Jan. 25, 1999).

Declaration of Robert W. Crandall and J. Gregory Sidak on behalf of Bell Atlantic Corporation and GTE Corporation, In the Matter of GTE Corporation, Transferor, and Bell Atlantic Corporation, Transferee, For Consent to Transfer of Control, Federal Communications Commission, CC Dkt. No. 98B184 (filed Dec. 23, 1998).

Opinion of Law Concerning the Constitutionality of the Commission's Proposal to Require Level 3 Direct Access

to Space Segment Capacity on the INTELSAT System, filed on behalf of Comsat Corporation in Direct Access to the INTELSAT System, Notice of Proposed Rulemaking, Federal Communications Commission, IB Dkt. No. 98-192 (filed Dec. 22, 1998).

Direct Testimony and Cross Examination Testimony of J. Gregory Sidak on behalf of Public Service Company of New Mexico, Application of and Complaint by Residential Electric, Inc. *v.* Public Service Company of New Mexico, Case No. 2867, Application of Residential Electric, Inc. for a Certificate of Public Convenience and Necessity, Case No. 2868, New Mexico Public Utility Commission (Nov. 17, 1998).

Affidavit of J. Gregory Sidak on behalf of Public Service Company of New Mexico, Application of and Complaint by Residential Electric, Inc. *v.* Public Service Company of New Mexico, Case No. 2867, Application of Residential Electric, Inc. for a Certificate of Public Convenience and Necessity, Case No. 2868, New Mexico Public Utility Commission (filed Nov. 9, 1998).

Affidavit of Joseph Gregory Sidak on behalf of Hong Kong Telephone Company Limited, *Hong Kong Telephone Company Limited v. Office of the Telecommunications Authority*, High Court of the Hong Kong Special Administrative Region, Court of First Instance (filed Sept. 22, 1998).

Cross Examination Testimony of J. Gregory Sidak on behalf of the Edison Electric Institute in *Public Service Company of New Hampshire v. New Hampshire Electric Cooperative, Inc.*, Federal Energy Regulatory Commission, Dkt. No. EL96-53-002 (Sept. 10, 1998).

Prefiled Direct Testimony of J. Gregory Sidak on behalf of the Edison Electric Institute in *Public Service Company of New Hampshire v. New Hampshire Electric Cooperative, Inc.*, Federal Energy Regulatory Commission, Dkt. No. EL96-53-002 (filed Aug. 27, 1998).

Affidavit of J. Gregory Sidak on behalf of PECO Energy Company, *Omnipoint Corporation v. PECO Energy Company*, Federal Communications Commission, No. PA 97B002 (filed Aug. 5, 1998).

Affidavit of J. Gregory Sidak, appended to comments of the Newspaper Association of America, *in* 1998 Biennial Regulatory Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996, Notice of Inquiry, Federal Communications Commission, MM Docket No. 98-35 (filed July 21, 1998).

A Report to the Minister for Communications, the Information Economy, and the Arts on the State of Competition in Australian Telecommunications Services One Year after Deregulation (June 30, 1998) (prepared for Telstra Corporation Ltd.)

Affidavit of J. Gregory Sidak, appended to Comments of Telstra Corporation Ltd. *in* Declaration of Local Telecommunications Services, Australian Competition and Consumer Commission (May 21, 1998).

Opinion of Law Concerning the Commission's Authority to Permit the Acquisition by CanWest Global Communications Corporation of More Than 25 Percent of the Stock of an American Broadcast Licensee, Letter to William E. Kennard, Chairman, Federal Communications Commission (May 11, 1998).

Testimony of J. Gregory Sidak, *Bell Atlantic v. United States*, Case No. 96CV-8657 (E.D. Pa.) (Mar. 18, 1998) (investment tax credit refund litigation).

Deposition of J. Gregory Sidak, *Bell Atlantic v. United States*, Case No. 96CV-8657 (E.D. Pa.) (Mar. 3, 1998) (investment tax credit refund litigation).

Affidavit of J. Gregory Sidak, appended to Comments of the United States Telephone Association *in* Jurisdictional Separations Reform and Referral to the Federal-State Joint Board, Notice of Proposed Rulemaking, Federal Communications Commission, CC Docket No. 80-286 (filed Dec. 10, 1997), *and in* Amendment to Uniform System of Accounts for Interconnection, Notice of Proposed Rulemaking, Federal Communications Commission, CC Docket No. 97-212 (filed Dec. 10, 1997).

Cross Examination Testimony of J. Gregory Sidak on behalf of PECO Energy Company, Application of PECO Energy Company for Approval of Its Restructuring Plan Under Section 2806 of the Public Utility Code, Regarding the Enron Choice Plan, Pennsylvania Public Utility Commission, Dkt. Nos. R-00973953, P-00971265 (Nov. 17, 1997).

Prefiled Testimony of J. Gregory Sidak, Application of PECO Energy Company for Approval of Its Restructuring Plan Under Section 2806 of the Public Utility Code, Regarding the Enron Choice Plan, Pennsylvania Public Utility Commission, Dkt. Nos. R-00973953, P-00971265 (filed Nov. 7, 1997).

Prefiled Testimony of J. Gregory Sidak on behalf of El Paso Electric Company, City of Las Cruces, New Mexico, Federal Energy Regulatory Commission, Dkt. No. SC97-2-000 (filed Oct. 3, 1997).

Reply Comments of J. Gregory Sidak, Rules and Policies on Foreign Participation in the U.S. Telecommunications Market, Order and Notice of Proposed Rulemaking, Federal Communications Commission, IB Dkt. No. 97-142 (filed Aug. 11, 1997).

Prefiled Rebuttal Testimony of J. Gregory Sidak, Regarding an Economic Analysis of the Appropriate Standard of Conduct That Should Govern the Relationship Between PECO's Regulated Wire Business and Its Competitive, Unregulated Generation and Other Businesses and An Economic and Constitutional Analysis of the Justness and Reasonableness of PECO's Full Recovery of Its Stranded Costs, Application of PECO Energy Company for Approval of Its Restructuring Plan Under Section 2806 of the Public Utility Code, Dkt. No. R-00973953, Pennsylvania Public Utility Commission (filed July 18, 1997).

Statement of J. Gregory Sidak on behalf of Hong Kong Telephone Company Concerning Interconnect Access Charging Principles, Submission on the Hong Kong Local Interconnect Charging Regime, OFTA Review of Statement No. 7, Carrier-to-Carrier Charging, Office of Telecommunications Authority, Hong Kong (filed May 13, 1997).

*Hearings on H.R. 22, The Postal Reform Act of 1997*, Subcommittee on the Postal Service of the House Committee on Government Reform and Oversight, 105th Congress, 1st Session (Apr. 16, 1997).

Prefiled Testimony of J. Gregory Sidak, Regarding an Economic and Constitutional Analysis of the Justness and Reasonableness of PECO's Full Recovery of Its Stranded Costs, Application of PECO Energy Company for Approval of Its Restructuring Plan Under Section 2806 of the Public Utility Code, Dkt. No. R-00973953, Pennsylvania Public Utility Commission (filed Mar. 26, 1997).

Affidavit of J. Gregory Sidak and Daniel F. Spulber, appended to Comments of the United States Telephone Association *in* Usage of the Public Switched Network by Information Service and Internet Access Providers, Notice of Inquiry, Federal Communications Commission, CC Dkt. No. 96-263 (filed Mar. 24, 1997).

Reply Affidavit of J. Gregory Sidak and Daniel F. Spulber, appended to Reply Comments of the United States Telephone Association *in* Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing; Usage of the Public Switched Network by Information Service and Internet Access Providers, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, Federal Communications Commission, CC Dkt. Nos. 96-262, 94-1, 91-213, 96-263 (filed Feb. 14, 1997).

Affidavit of J. Gregory Sidak and Daniel F. Spulber, appended to Comments of the United States Telephone Association *in* Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing; Usage of the Public Switched Network by Information Service and Internet Access Providers, Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, Federal Communications Commission, CC Dkt. Nos. 96-262, 94-1, 91-213, 96-263 (filed Jan. 29, 1997).

Testimony of J. Gregory Sidak on behalf of GTE South Inc., Petition of AT&T Communications of the South Central States, Inc., for Arbitration of Certain Terms and Conditions of a Proposed Agreement with GTE South Inc. Concerning Interconnection and Resale Under the Telecommunications Act of 1996, Case No. 96-478, Public Service Commission of Kentucky (Jan. 14, 1997).

Cross Examination Testimony of J. Gregory Sidak on behalf of GTE North Inc., In the Matter of Sprint Communications Company L.P.'s Petition for Arbitration of Interconnection Rates, Terms, Conditions and Related Arrangements with GTE North Inc., Case No. 96-10210-TP-ARB, Public Utilities Commission of Ohio (Nov. 21, 1996).

Testimony of J. Gregory Sidak on behalf of GTE South Inc., Petition of MCI, Public Service Commission of Kentucky (Nov. 12, 1996).

Direct Testimony of J. Gregory Sidak on behalf of GTE North Inc., Petition of Sprint, Public Utilities Commission of Pennsylvania (Nov. 7, 1996).

Direct Testimony of J. Gregory Sidak on behalf of GTE Midwest Inc., Petition of MCI, Public Utilities Commission of Indiana (Nov. 1, 1996).

Direct Testimony of J. Gregory Sidak on behalf of GTE Midwest Inc., *AT&T Communications of the Midwest Inc. v. GTE Midwest Inc.*, Iowa Utilities Board, Dkt. No. ARB-96-3 (Oct. 15, 1996).

Direct Testimony of J. Gregory Sidak on behalf of GTE North Inc., Petition of AT&T, Public Utilities Commission of Pennsylvania (filed Sept. 9, 1996).

Affidavit of J. Gregory Sidak, appended to Memorandum of Law in Support of Petition of the Energy Association of New York State in *Energy Association of New York State v. Public Service Commission of the State of New York*, Index No. 5830-96 (filed Supreme Ct. N.Y., County of Albany, Sept. 18, 1996).

Rebuttal Testimony of J. Gregory Sidak on behalf of Central Power and Light Company *in* Application of Central Power and Light Company for Authority to Change Rates, Competitive Issues Phase, Public Utility Commission of Texas, SOAH Dkt. No. 473-95-1563, PUCT Dkt No. 14965 (filed Aug. 1, 1996).

Reply Affidavit of J. Gregory Sidak, appended to Reply Comments of the United States Telephone Association *in* Allocation of Costs Associated with Local Exchange Carrier Provision of Video Programming Services, Federal Communications Commission, CC Dkt. No. 96-112 (filed June 12, 1996).

Affidavit of J. Gregory Sidak, appended to Comments of the United States Telephone Association *in* Allocation of Costs Associated with Local Exchange Carrier Provision of Video Programming Services, Federal Communications Commission, CC Dkt. No. 96-112 (filed May 31, 1996).

Affidavit of Michael J. Doane, J. Gregory Sidak, and Daniel F. Spulber, appended to Reply Comments of GTE Service Corporation *in* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Federal Communications Commission, CC Dkt. No. 96-98 (filed May 30, 1996).

*An Empirical Analysis of the Efficient Component-Pricing Rule and Sections 251 and 252 of the Telecommunications Act of 1996*, appended to Comments of GTE Service Corporation *in* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Federal Communications Commission, CC Dkt. No. 96-98 (filed May 16, 1996), co-authored with Michael J. Doane and Daniel F. Spulber.

*Technological, Environmental and Financial Issues Raised by Increasingly Competitive Electricity Markets, Hearings before the Subcommittee on Energy and Power of the House Committee on Commerce*, 104th Congress, 2d Session (Mar. 28, 1996).

*Monopoly and the Mandate of Canada Post*, in Submission of the Director of Investigation and Research, Competition Bureau, to Canada Post Corporation Mandate Review Committee (Ottawa, Feb. 15, 1996).

Reply Comments of J. Gregory Sidak, Market Entry and Regulation of Foreign-affiliated Entities, Notice of Proposed Rulemaking, Federal Communications Commission, IB Dkt. No. 95-22 (filed May 12, 1995).

Comments of J. Gregory Sidak, Market Entry and Regulation of Foreign-affiliated Entities, Notice of Proposed Rulemaking, Federal Communications Commission, IB Dkt. No. 95-22 (filed Apr. 11, 1995).

*The Line-Item Veto Amendment: Hearings before the Subcommittee on the Constitution of the Senate Judiciary Committee*, 104th Congress, 1st Session (Jan. 24, 1995).

*Competition and Regulatory Policies for Interactive Broadband Networks*, in *Competition Policy, Regulation and the Information Economy: Submission of the Director of Investigation and Research, Bureau of Competition Policy, to the Canadian Radio-television and Telecommunications Commission, Public Notice CRTC 1994-130, Order in Council P.C. 1994-1689* (Ottawa, Jan. 16, 1995), co-authored with Robert W. Crandall.

*Line Item Veto: The President's Constitutional Authority: Hearing before the Subcommittee on the Constitution of the Senate Judiciary Committee*, 103d Congress, 2d Session (June 15, 1994).

Opinion of Law Concerning Legislation to Reform the Cost-Justification Defense to Discrimination in the Sale of Telecommunications Services, Letter to Ms. Deena Shiff, General Manager, Corporate Affairs, Telstra Corporation Limited, Sydney, New South Wales, Australia (Jan. 13, 1994) (distributed to the Australian Parliament).

Brief of *Amicus Curiae* J. Gregory Sidak, Association of American Physicians and Surgeons, Inc. *v.* Hillary Rodham Clinton, 997 F.2d 898 (D.C. Cir. 1993), filed Apr. 5, 1993.

#### B A R A D M I S S I O N S

California (1982); District of Columbia (1989); Supreme Court of the United States (1989).

#### M E M B E R S H I P S

American Law Institute

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November 17, 2011





**APPENDIX II: MATERIALS RELIED UPON****DOCUMENTS FROM THE 2008 SDARS ROYALTY RATE PROCEEDING**

Adjustment of Rates and Terms for Preexisting Subscription and Satellite Digital Audio Radio Services, Written Direct Testimony of David J. Frear, Dkt. No. 2006-1 CRB DSTRA (Oct. 30, 2006) (Public Version).

Adjustment of Rates and Terms for Preexisting Subscription and Satellite Digital Audio Radio Services, Direct Testimony of Gary Parsons (on behalf of XM Satellite Radio Inc.), Dkt. No. 2006-1 CRB DSTRA (Oct. 30, 2006) (Public Version).

Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, Final Rule and Order, 73 Fed. Reg. 4080 (Jan. 24, 2008).

**STATUTES & COURT DOCUMENTS**

17 U.S.C. § 801(b)(1).

18 U.S.C. § 1464 (2000).

37 C.F.R. § 382.11 (2007).

47 C.F.R. § 73.3999 (2006).

U.S. DEPT. OF JUSTICE & FED. TRADE COMM’N, HORIZONTAL MERGER GUIDELINES, § 9.0 (2010).

Blessing v. Sirius XM Radio Inc., 2011 WL 1194707, No. 09 CV 10035(HB), 2011-1 Trade Cas. ¶ 77,468 (S.D.N.Y. Mar. 29, 2011).

Blessing v. Sirius XM Radio Inc., 2011 WL 3739024, No. 09 CV 10035(HB), 2011-2 Trade Cas. ¶ 77,579 (S.D.N.Y. Aug. 24, 2011).

Letter from James S. Blitz, Vice President, Regulatory Counsel, Sirius XM Radio Inc., to Jacqueline Ellington, Esq., Spectrum Enforcement Division, Enforcement Bureau, Fed. Commc’ns Comm’n (May 12, 2010), Exhibit 72, *in* Motion for Summary Judgment, Declaration of James J. Sabella in Opposition, Blessing v. Sirius XM Radio Inc., 1:09-cv-10035-HB –RLE, at 68-71 (filed May 16, 2011).

Consolidated Application for Authority to Transfer Control of XM Radio Inc. and Sirius Satellite Radio Inc., MB. Dkt. No. 07-57, at 10 (Mar. 20, 2007).

Applications for Consent to the Transfer of Control of Licenses, XM Satellite Radio Holdings Inc. to Sirius Satellite Radio Inc., Memorandum Opinion and Order and Report and Order, 23 F.C.C.R. 12,348 (2008).

Applications for Consent to the Transfer of Control of Licenses, XM Satellite Radio Holdings Inc. to Sirius Satellite Radio Inc., Memorandum Opinion and Order, 26 F.C.C.R. 10,539 (2011).

Request For Further Comment on Selected Issues Regarding the Authorization of Satellite Digital Audio Radio Service Terrestrial Repeater Networks, Public Notice, DA 01-2570, 1 (Nov. 1, 2001).

In the Matter of Satellite CD Radio, Inc., Memorandum Opinion and Order, FCC Dkt. No. 01-335, 16 F.C.C.R. 21,458, 21,460 (2001).

## BOOKS

CHARLES T. HORNGREN, GEORGE FOSTER & SRIKANT M. DATAR, *COST ACCOUNTING: A MANAGERIAL EMPHASIS* 61 (8th ed., Prentice-Hall, Inc. 1994).

DENNIS W. CARLTON & JEFFREY M. PERLOFF, *MODERN INDUSTRIAL ORGANIZATION* 59-60, 62, 105, 239, 695 (3d ed., Addison-Wesley 2000).

THOMAS W. HAZLETT & MATTHEW L. SPITZER, *PUBLIC POLICY TOWARD CABLE TELEVISION* 21 (MIT Press 1997).

## ACADEMIC ARTICLES

Eric B. Lindenberg & Stephen A. Ross, *Tobin's q Ratio and Industrial Organization*, 54 J. BUS. 1 (1981).

James Tobin & William C. Brainard, *Asset Markets and the Cost of Capital*, in *PRIVATE VALUES AND PUBLIC POLICY: ESSAYS IN HONOR OF WILLIAM FELLNER* 235 (North-Holland 1977).

Joseph Farrell & Carl Shapiro, *Recapture, Pass-through, and Market Definition*, 76 ANTITRUST L.J. 585 (2010).

Kee H. Chung & Stephen W. Pruitt, *A Simple Approximation of Tobin's q*, 23 FIN. MGMT. 70, 71 (1994).

Luke Froeb, Steven Tschantz & Gregory J. Werden, *Pass-through Rates and the Price Effects of Mergers*, 23 INT'L J. INDUS. ORG. 703 (2005).

Michael A. Salinger, *Tobin's q, Unionization, and the Concentration Profits Relationship*, 15 RAND J. ECON. 159 (1984).

Michael Smirlock, Thomas Gilligan & William Marshall, *Tobin's Q and the Structure-Performance Relationship*, 74 AM. ECON. REV. 1051 (1984).

Morten Ravn, Stephanie Schmitt-Grohe & Martin Uribe, *Incomplete Pass-through Under Deep Habits* (Nat'l Bureau of Econ. Research, Working Paper No. 12961, 2007).

## NEWS ARTICLES

Craig Moffet & Amelia Wong, *Satellite Radio: Limitations of Digital Radio Suggest Impact on Satellite Radio Will Likely Be Small*, BERNSTEIN RESEARCH CALL, Dec. 8, 2005, at 1.

David Lee, R-Tools Technology, *HD Radio vs. Satellite Radio*, <http://hdradio-vs-satelliteradio.articles.r-tt.com/> (Feb. 17, 2011).

Donald Melanson, *Apple: 16 Billion iTunes Songs Downloaded, 300 million iPods Sold*, ENGADGET, Oct. 4, 2011, <http://www.engadget.com/2011/10/04/apple-16-billion-itunes-songs-downloaded-300-million-ipods-sol/>.

Elizabeth Montalbano, *DARPA Seeks Better Satellite Launch System*, INFORMATIONWEEK, Nov. 11, 2011, <http://informationweek.com/news/government/enterprise-architecture/231902870>.

*India to Cut Satellite Launch Cost by Half*, INDIA EXPRESS, Apr. 4, 2010, <http://www.indianexpress.com/news/indiatocutsatellitelaunchcostbyhalf/599786/>.

J. P. Mangalindan, *What Howard Stern's \$400 Million Sirius Contract Means to the Street*, FORTUNE, Dec. 9, 2010, <http://money.cnn.com/2010/12/09/news/companies/Sirius-Stern-400-million.fortune/index.htm> (quoting Brett Harriss, Gabelli and Company).

John R. Quain, *Will the Internet Kill Traditional Car Radio?*, N.Y. TIMES, May 7, 2010, <http://www.nytimes.com/2010/05/09/automobiles/09RADIO.html?pagewanted=all>.

Joseph Palenchar & Amy Gilroy, *HD Radio Continues Slow-but-Steady Growth*, TWICE (This Week in Consumer Electronics), Jan. 8, 2009, [http://www.twice.com/article/253539-HD\\_Radio\\_Continues\\_Slow\\_But\\_Steady\\_Growth.php](http://www.twice.com/article/253539-HD_Radio_Continues_Slow_But_Steady_Growth.php).

Peter B. Selding, *Space Forecast Predicts Satellite Production Boom*, SPACE NEWS, June 15, 2009, <http://www.space.com/6839-space-forecast-predicts-satellite-production-boom.html>.

Robert Pear, *Recession Officially Over, U.S. Income Kept Falling*, N.Y. TIMES, Oct. 9, 2011, at A1, available at <http://www.nytimes.com/2011/10/10/us/recession-officially-over-us-incomes-kept-falling.html>.

Sarah McBride, *Weak Signals: Can HD Radio Find Listeners?*, WALL ST. J., Nov. 8, 2008, at D1.

*Sirius XM Ramps Up Used Car Market with Nissan Announcement*, SEEKING ALPHA, Oct. 10, 2011, <http://seekingalpha.com/article/298663-sirius-xm-ramps-up-used-car-market-with-nissan-announcement>.

Spencer Osborne, *Sirius XM's Advantages Defined*, Seeking Alpha, <http://seekingalpha.com/article/296471-sirius-xm-s-advantages-defined?source=yahoo> (Sept. 28, 2011).

Tom Lowry, *Antenna Adjustment; Clear Channel is pulling apart its empire as it scrambles to compete in a changed media world*, BUS. WK., June 20, 2005, at 64.

*Why Radio is Worth Watching*, THE ECONOMIST, June 11, 2005, at 15 (citing analyst Ted Schadler).

## **PRESS RELEASES**

Press Release, Sirius Satellite Radio, Sirius Now Available in BMW 3 Series, 5 Series, and X5 Vehicles (Jan. 9, 2003).

Press Release, Sirius Satellite Radio, SIRIUS Satellite Radio Arrives at Chrysler, Dodge and Jeep® Dealerships Nationwide (Jan. 22, 2003).

Press Release, Sirius Satellite Radio, Sirius Satellite Radio Now Available on Select Ford, Lincoln and Mercury Vehicles (Sept. 18, 2003).

Press Release, Space Systems/Loral, Space Systems/Loral to Build Next Generation Satellite for XM Satellite Radio (June 7, 2005).

Press Release, Apple Inc., *Apple Reinvents the Phone with the iPhone* (Jan. 9, 2007).

Press Release, Sirius XM, Ford Motor Company to Offer Nationwide Introductory Trial of Sirius XM Radio on Certified Pre-Owned Ford and Lincoln Mercury Vehicles (Feb. 4, 2010).

Press Release, Sirius XM, BMW Motorcycles to Offer SIRIUS as Standard Equipment on Model Year 2011 Radio Equipped Motorcycles (Dec. 22, 2010).

Press Release, Sirius XM, Nissan North America to Offer Introductory Subscription to XM on Certified Pre-Owned Nissan and Infinity Vehicles (Jan. 10, 2011).

Press Release, Sirius XM, Hyundai to Offer Introductory Subscription to XM on Certified Pre-Owned Vehicles (May 24, 2011).

Press Release, Sirius XM, General Motors Dealers to Offer 3-Month Subscription to SiriusXM on Pre-Owned Vehicles (June 20, 2011).

Press Release, Sirius XM Radio, Inc., SiriusXM Provides 2012 Financial Guidance (Sept. 14, 2011).

Press Release, Sirius XM, Subaru to Offer SiriusXM on All Models Beginning with Model Year 2012 Vehicles (Oct. 4, 2011).

Press Release, Sirius XM, Nissan and Infinity Dealers to Offer 3-Month XM Subscription on All Pre-Owned Vehicles with Factory-Installed Satellite Radios (Oct. 6, 2011).

#### **PUBLIC DOCUMENTS AND WEB PAGES**

Arbitron, [http://www.arbitron.com/home/ratings\\_topline.htm](http://www.arbitron.com/home/ratings_topline.htm) (last visited Nov. 3, 2011).

Bridge Ratings, Digital Media Growth Projections (Feb. 19, 2007), [http://www.bridgeratings.com/press\\_021907-digitalprojectionsupd.htm](http://www.bridgeratings.com/press_021907-digitalprojectionsupd.htm).

Bureau of Labor Statistics, Consumer Price Index – All Urban Consumers, *available at* <http://data.bls.gov/cgi-bin/surveymost> (last visited Nov. 22, 2011).

ClearChannel, ClearChannel Radio, <http://www.clearchannel.com/Radio/> (last visited Nov. 9, 2011).

Google Finance, Sirius XM Radio Inc. (SIRI), Summary, <http://www.google.com/finance?q=siri> (last visited Nov. 14, 2011).

HD Radio, Buyer's Guide, Car Audio, Car Stereo, <http://www.hdradio.com/buyers-guide/car-stereo> (last visited Nov. 16, 2011).

HD Radio, Buyer's Guide, Car Audio, Converter, <http://www.hdradio.com/buyers-guide/converter> (last visited Nov. 16, 2011).

HD Radio, Buyer's Guide, Home Audio, <http://www.hdradio.com/buyers-guide/home-audio> (last visited Nov. 16, 2011).

Ibiquity Digital Corp., Company History, [http://www.ibiquity.com/about\\_us/company\\_history](http://www.ibiquity.com/about_us/company_history) (last visited Nov. 16, 2011).

National Bureau of Economics Research, U.S. Business Cycle Expansions and Contractions, <http://www.nber.org/cycles.html>.

Pandora, FAQ, Pandora and Alpine, <http://help.pandora.com/customer/portal/articles/83143-pandora-and-alpine> (last visited Nov. 10, 2011).

Pandora, FAQ, Pandora and Pioneer, [http://blog.pandora.com/mt/mt-search.cgi?blog\\_id=25&tag=Pandora%20Mobile&limit=20](http://blog.pandora.com/mt/mt-search.cgi?blog_id=25&tag=Pandora%20Mobile&limit=20) (last visited Nov. 10, 2011).

Pandora, How to Listen to Pandora in the Car, <http://help.pandora.com/customer/portal/articles/24523-how-to-listen-to-pandora-in-the-car> (last visited Nov. 22, 2011).

Sentier Research, Household Income Trends During the Recession and Economic Recovery (Oct. 10, 2011) *available at* [http://www.sentierresearch.com/pressreleases/SentierResearch\\_PressRelease\\_October\\_10\\_2011.pdf](http://www.sentierresearch.com/pressreleases/SentierResearch_PressRelease_October_10_2011.pdf).

Sirius XM, Our Most Popular Packages for SiriusXM, <http://www.siriusxm.com/ourmostpopularpackages-sxm>.

Sirius XM Satellite Radio, SiriusXM Channel Lineup, <http://www.siriusxm.com/servlet/Satellite?blobcol=urlimage&blobheadname1=Content-Type&blobheadvalue1=application%2Fpdf&blobkey=id&blobtable=ImageAsset&blobwhere=1283879646982&ssbinary=true> (last visited Nov. 11, 2011).

Sirius XM, What Is Sirius XM?, <http://www.siriusxm.com/whatissiriusxm> (last visited Nov. 3, 2011).

Spotify, Get Spotify, <http://www.spotify.com/us/get-spotify/overview/> (last visited Nov. 6, 2011).

U.S. Census Bureau, Current Population Survey, Income Statistics, Table H-5, Regions—All Races by Median and Mean Income: 1975 to 2010, *available at* <http://www.census.gov/hhes/www/income/data/historical/household/> (last visited Nov. 17, 2011).

Verizon Wireless, Data Usage Calculator, [http://www.verizonwireless.com/splash\\_includes/datacalculator.html](http://www.verizonwireless.com/splash_includes/datacalculator.html) (last visited Nov. 10, 2011).

Verizon Wireless, Nationwide Single-Line Plans, <http://www.verizonwireless.com/b2c/plans/?page=single> (last visited Nov. 10, 2011).

Yahoo! Finance, Sirius XM Radio Inc. (SIRI), Key Statistics, <http://finance.yahoo.com/q/ks?s=SIRI+Key+Statistics> (last visited Nov. 15, 2011).

## SEC FILINGS

CLEAR CHANNEL COMMUNICATIONS, INC., 2010 ANNUAL REPORT (SEC FORM 10-K) (filed Feb. 14, 2011).

PANDORA MEDIA, INC., QUARTERLY REPORT FOR THE PERIOD ENDED JULY 31, 2011 (SEC FORM 10-Q) (filed Sept. 2, 2011).

SIRIUS XM RADIO INC., 2011 ANNUAL MEETING OF STOCKHOLDERS PRESENTATION SLIDES DATED MAY 25, 2011 (SEC FORM 8-K) (filed May 25, 2011).

SIRIUS XM RADIO INC., 2010 ANNUAL REPORT (SEC FORM 10-K) (filed Feb. 16, 2011).

SIRIUS XM RADIO INC., 2009 ANNUAL REPORT (SEC FORM 10-K) (filed Feb. 25, 2010).

SIRIUS XM RADIO INC., 2008 ANNUAL REPORT (SEC FORM 10-K) (filed Mar. 10, 2009).

SIRIUS XM RADIO INC., 2007 ANNUAL REPORT (SEC FORM 10-K) (filed Feb. 29, 2008).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2011 (SEC FORM 10-Q) (filed Nov. 3, 2011).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDING JUNE 30, 2011 (SEC FORM 10-Q) (filed Aug. 4, 2011).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2011 (SEC FORM 10-Q) (filed May 5, 2011).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2010 (SEC FORM 10-Q) (filed Nov. 4, 2010).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2010 (SEC FORM 10-Q) (filed Aug. 6, 2010).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2010 (SEC FORM 10-Q) (filed May 7, 2010).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2009 (SEC FORM 10-Q) (filed Nov. 5, 2009).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2009 (SEC FORM 10-Q) (filed Aug. 6, 2009).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2009 (SEC FORM 10-Q) (filed May 8, 2009).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2008 (SEC FORM 10-Q) (filed Nov. 12, 2008).



SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2008 (SEC FORM 10-Q) (filed Aug. 11, 2008).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2008 (SEC FORM 10-Q) (filed May 12, 2008).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2007 (SEC FORM 10-Q) (filed Nov. 1, 2007).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2007 (SEC FORM 10-Q) (filed Aug. 9, 2007).

SIRIUS XM RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2007 (SEC FORM 10-Q) (filed May 10, 2007).

XM SATELLITE RADIO INC., 2007 ANNUAL REPORT (SEC FORM 10-K) (filed Feb. 28, 2008).

XM SATELLITE RADIO, INC., 2000 ANNUAL REPORT (SEC FORM 10-K) (filed Mar. 15, 2001).

XM SATELLITE RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED SEPTEMBER 30, 2007 (SEC FORM 10-Q) (filed Oct. 29, 2007).

XM SATELLITE RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED JUNE 30, 2007 (SEC FORM 10-Q) (filed July 30, 2007).

XM SATELLITE RADIO INC., QUARTERLY REPORT FOR THE PERIOD ENDED MARCH 31, 2007 (SEC FORM 10-Q) (filed May 2, 2007).

#### **EARNINGS CALL TRANSCRIPTS**

Sirius XM Radio's CEO Discusses Q4 2010 Results – Earnings Call Transcript, *available at* Seeking Alpha (Feb. 15, 2011), <http://seekingalpha.com/article/252957-sirius-xm-radio-s-ceo-discusses-q4-2010-results-earnings-call-transcript> (last visited Oct. 19, 2011).

Sirius XM Radio's CEO Discusses Q3 2011 Results – Earnings Call Transcript, *available at* Seeking Alpha (Nov. 1, 2011), <http://seekingalpha.com/article/303987-sirius-xm-radio-s-ceo-discusses-q3-2011-results-earnings-call-transcript> (last visited Nov. 9, 2011).

**APPENDIX III: CALCULATION OF SIRIUS XM'S REPLACEMENT COST**

1. Table A.1 shows Sirius XM's capital costs as reported in the written direct testimony of Mr. David Frear, currently Sirius XM's executive vice president and chief financial officer, filed on October 20, 2006 in the last rate proceeding (when he was Sirius's CFO)<sup>124</sup> and in Sirius XM's quarterly report ending September 30, 2011.

TABLE A.1: SIRIUS XM'S CAPITAL COSTS USED TO ESTIMATE SIRIUS XM'S REPLACEMENT COST

<b>Item</b>	<b>Lower Bound</b>	<b>Upper Bound</b>
Sirius satellites		
Sirius FM-1	\$259,000,000	\$273,000,000
Sirius FM-2	\$259,000,000	\$273,000,000
Sirius FM-3	\$259,000,000	\$273,000,000
Sirius FM-4	\$130,000,000	\$130,000,000
Sirius FM-5	\$260,000,000	\$500,000,000
Sirius FM-6	\$260,000,000	\$500,000,000
XM satellites		
XM-1	\$259,000,000	\$273,000,000
XM-2	\$259,000,000	\$273,000,000
XM-3	\$259,000,000	\$273,000,000
XM-4	\$259,000,000	\$273,000,000
XM-5	\$260,000,000	\$500,000,000
Spectrum	\$173,300,000	\$173,300,000
Tracking, telemetry, & control system	\$57,917,000	\$57,917,000
Terrestrial repeaters	\$111,888,000	\$111,888,000
Leasehold improvements	\$43,392,000	\$43,392,000
Broadcast studio equipment	\$52,554,000	\$52,554,000
Capitalized software and hardware	\$181,712,000	\$181,712,000
Furniture, fixtures, equipment, & other	\$64,673,000	\$64,673,000
Land	\$38,411,000	\$38,411,000
Building	\$56,952,000	\$56,952,000
Construction in progress	\$365,827,000	\$365,827,000
Accumulated depreciation and amortization	-\$1,214,289,000	-\$1,214,289,000
<b>Total estimated replacement cost</b>	<b>\$2,655,329,000</b>	<b>\$3,473,329,000</b>

*Sources:* Frear 2006 Testimony, *supra* note 124, at 8-10 (Oct. 30, 2006); Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 11.

124. Adjustment of Rates and Terms for Preexisting Subscription and Satellite Digital Audio Radio Services, Written Direct Testimony of David J. Frear, Dkt. No. 2006-1 CRB DSTRA, at 8-10 (Oct. 30, 2006) [hereinafter Frear 2006 Testimony].

2. Mr. Frear said in his direct testimony that the total cost of each of Sirius's three first-generation satellites was approximately \$259 million to \$273 million.<sup>125</sup> The total cost of Sirius's FM-4 satellite, according to Mr. Frear, was \$130 million.<sup>126</sup> Each of Sirius's next-generation satellites (the FM-5 and FM-6 satellites) cost approximately \$260 million, and the total cost of the entire next-generation satellite program was \$1 billion.<sup>127</sup> Thus, I estimate that the replacement cost of each of Sirius' FM-5 and FM-6 satellites is \$260 million to \$500 million.

3. I was not provided with information on the capital costs of XM's satellites. Therefore, for purposes of estimating Sirius XM's replacement cost, I have assumed that the replacement costs of the XM satellites are equivalent to those of the Sirius satellites. I approximated the replacement cost of the XM-1, XM-2, XM-3, and XM-4 satellites to be equal to \$259 million to \$273 million each. Because XM-5 is a next-generation satellite,<sup>128</sup> I assume that its replacement cost is \$260 million to \$500 million.

4. The remaining, non-satellite capital costs are the costs of Sirius XM's spectrum and property, plant, and equipment. Sirius and XM together paid a total of \$173.3 million for the SDARS spectrum.<sup>129</sup> According to Sirius XM's quarterly report for the third quarter of 2011, the value of the company's non-satellite property and equipment cost was approximately \$973 million.<sup>130</sup> However, Sirius XM's accumulated depreciation and amortization costs were -\$1.2

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125. *Id.* at 8.

126. *Id.*

127. *Id.* at 9.

128. *See, e.g.*, Press Release, Space Systems/Loral, Space Systems/Loral to Build Next Generation Satellite for XM Satellite Radio (June 7, 2005).

129. Frear 2006 Testimony, *supra* note 124, at 8 (stating that Sirius paid \$83.3 million for its license); Adjustment of Rates and Terms for Preexisting Subscription and Satellite Digital Audio Radio Services, Direct Testimony of Gary Parsons (on behalf of XM Satellite Radio Inc.), Dkt. No. 2006-1 CRB DSTRA, at 5 ¶ 8 (Oct. 30, 2006) (stating that XM paid \$90 million for its license).

130. Q3 2011 SIRIUS XM QUARTERLY REPORT, *supra* note 39, at 11.

billion.<sup>131</sup> The sum of Sirius XM's total estimated replacement cost is thus \$2.7 billion to \$3.5 billion.

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131. *Id.*

**Before the  
UNITED STATES COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

In the Matter of:

Determination of Rates and Terms for  
Preexisting Subscription Services and  
Satellite Digital Audio Radio Services

Docket No. 2011-1  
CRB PSS/Satellite II

**TESTIMONY OF**

**GEORGE S. FORD**

**President, Applied Economic Studies**

**Witness for SoundExchange, Inc.**

## **My Experience and Qualifications**

My name is George S. Ford. I am the President of Applied Economic Studies, a private consulting firm specializing in economic and econometric analysis, located in Birmingham, Alabama. I am also the Chief Economist of the Phoenix Center for Advanced Legal & Economic Policy Studies, a Washington, D.C.-based 501(c)(3) research organization that specializes in the legal and economic analysis of public policy issues involving the communications and technology industries. In addition, I am an Adjunct Professor at Samford University, a private university located in Birmingham, Alabama, where I teach economics in the graduate program of the business school. I serve as a member of the Alabama Broadband Taskforce upon appointment by Alabama Governor Bob Riley.

I received a Ph.D. in Economics from Auburn University in 1994. Since then, I have worked as a professional economist in both government and industry. In 1994, I became an economist in the Competition Division of the Federal Communications Commission, an organization located in the General Counsel's Office that provided competition analysis support to the many bureaus of that organization. My primary interests were multichannel video services and broadcasting policies, though my work ranged from international policy to radio interference standards to statistical analysis. After my government tenure, I became an economist at MCI Communications, where my work focused on telecommunications policy. In April 2000, I became the Chief Economist of Z-Tel Communications in Tampa, Florida, a small competitive telephone company where I performed both regulatory and business analysis. I have been in my present employment since the Summer of 2004.

My areas of specialty in economics include Industrial Economics, Regulation, and Public Policy, with an emphasis on the communications industries, including broadcast radio and television. I have written many papers on telecommunications and media policy, and much of this work has been published in economic and law journals, including the *Journal of Law & Economics*, *Empirical Economics*, the *Journal of Business*, the *Journal of Regulatory Economics*, the *Antitrust Bulletin*, *Energy Economics*, the *Yale Journal on Regulation*, the *Federal Communications Law Journal*, and many others. I have testified before numerous public service commissions, state legislative bodies, and committees of the U.S. Congress on communications policy and rate setting. I also filed testimony before the Copyright Royalty Judges in the Matter of Distribution

of the 2004 and 2005 Cable Royalty Funds, Docket No. 2007-3 CRB CD 2004-2005 and in the Matter of Digital Performance Rights in Sound Recordings and Ephemeral Recordings, Docket No. 2009-1 CRB Webcasting III. A copy of my curriculum vitae is attached as Appendix A.

## **Overview**

The purpose of this proceeding is to establish the rates and terms for certain digital public performances of sound recordings under Section 114 of the Copyright Act and for the making of ephemeral copies in furtherance of such performances under Section 112(e) of the Copyright Act. I was engaged by SoundExchange, Inc. to provide an economic framework useful for establishing a rate for (i) the ephemeral copies paid by both the pre-existing subscription services (“PSS”) and the satellite digital audio radio services (“SDARS”) under the statutory license provided in Section 112(e) of the Copyright Act, and (ii) the public performance of sound recordings by the PSS, Music Choice and Muzak.

*Ephemerals.* With respect to the ephemeral rate, I understand that SoundExchange has proposed that the ephemeral royalty be bundled with the performance royalty and that 5% of the bundled royalty rate be allocated to the Section 112 royalty for making ephemeral copies. As I will explain below in further detail, with respect to the ephemeral copies, I have concluded that sound principles of economic theory as well as observed marketplace benchmarks firmly establish that ephemeral copies have economic value. I have also concluded on the basis of marketplace benchmarks that the economic value of ephemeral copies is properly measured as a fixed percentage of the overall value of the rights acquired by the PSS or SDARS under Sections 112 and 114. However, there exists very little in the way of traditional marketplace benchmarks to facilitate the proper computation of that percentage. This is because the hypothetical “marketplace” envisioned by Section 112 is made up of actors with very different economic interests from the marketplace that exists outside of the statutory framework.

In the unregulated marketplace, where copyright owners and services that publicly perform sound recordings freely negotiate to determine rates, the buyers and sellers are less concerned about the allocation of those royalty rates between payments for ephemeral copies and payments for public performances. However, when copyright owners and the service providers must abide by rates determined under Sections 112 and 114, the explicit allocation of

payments between those two components becomes much more relevant, because the ephemeral copy payments under Section 112(e) are made directly to copyright owners (or record companies in this case), while the performance payments under Section 114 are shared equally between copyright owners and artists. This particular division of payments is solely an artifact of the statute and does not bind or constrain market transactions.

While this division of royalties among upstream providers makes little difference to the “willing buyer” of ephemeral copies in the hypothetical unregulated marketplace – that is, the PSS and the SDARS – it makes a significant difference to the “willing seller” or “sellers,” *i.e.*, the record companies that own the rights to the sound recordings and the artists who get a share of the royalties. Record companies and artists care about what portion of royalty payments are allocated to ephemerals because the higher the portion allocated to ephemerals, the lower the portion paid directly to artists per the terms of the Section 114 license. Record companies and artists therefore have every incentive to negotiate over the proper percentage of royalty payments that are allocated to ephemeral copies. This negotiation is precisely what one would expect to happen in a free market in which both artists and record companies are forced by statute to share 50-50 in performance royalty payments.

Such a negotiation is the basis of the rate proposal advanced by SoundExchange. SoundExchange, a collective made up of both record companies and artists, has proposed a rate that represents the result of negotiations between the artists and the record companies that make up its board. As long as the ephemeral rate is defined as a percentage subset of the total royalty payment, the “willing buyer” – the PSS and SDARS – is indifferent to the ephemeral copy rate. As such, marketplace negotiations between the “willing buyer” – the PSS and SDARS – and the “willing seller” – the copyright owner – while potentially informative, may or may not establish a specific ephemeral copy rate. From a ratemaking standpoint, it does not matter. The SoundExchange proposal is what the “willing seller” in such a marketplace would propose. Because the “willing buyer” is indifferent, the rate proposed by SoundExchange is legitimately viewed as the proper marketplace rate for ephemeral copies. The proposal resolves the problem of a non-market allocation of royalties, and is the best evidence available of the market rate of, and rate mechanism for, ephemeral copies under Section 112.



PSS. I have also been asked to provide my opinion on the reasonableness of the rates proposed by SoundExchange to be paid by the PSS (Music Choice and Muzak)<sup>1</sup> for the performance rights for digital audio transmissions of sound recordings. The PSS are subject to the pricing standard set forth in Sections 114(f)(1) and 801(b)(1) of the Copyright Act. These sections of the Copyright Act require that the Copyright Royalty Judges establish “reasonable” royalty rates for the Section 114 license that comport with four policy objectives. In the case of the Section 112 license, a “willing buyer/willing seller” standard applies to all copyright users.

It is my understanding that SoundExchange has proposed that the PSS pay a revenue-based fee of 15% in 2013 with increases of five or ten percentage points each year to a rate of 45% in 2017. In my assessment of the reasonableness of these rates I adopt the basic economic concept that sound recording copyright owners should be comparably compensated for comparable uses of their rights at rates consistent with marketplace outcomes. This basic economic concept is consistent with, if not the foundation of, the benchmark approach commonly applied in establishing the rates for performance rights. I recognize, however, that the 801(b) statutory standard has a “broader scope”<sup>2</sup> than does the “willing buyer/willing seller” standard for which benchmarking is commonly used. Thus, I will consider also whether the 801(b) policy objectives “weigh in favor of divergence from the results indicated by the benchmark marketplace evidence.”<sup>3</sup>

For reasons expressed in greater detail in later sections of my testimony, I conclude the evidence implies that SoundExchange’s proposed revenue-based royalty fee of 45% is reasonable. The proposed rate is probably at or below the lower bound of a royalty rate consistent with a marketplace benchmark and by implementing the increase over a period of five years, I believe SoundExchange’s proposed rate satisfies the 801(b) statutory standard.

## **I. Analysis of the Section 112 License for Ephemeral Copies**

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<sup>1</sup> I understand that Muzak has withdrawn from this proceeding and Music Choice is the only PSS that is still participating.

<sup>2</sup> Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, Final Rule and Order, 73 Fed. Reg. 4080, 4088 (Jan. 24, 2008) [hereinafter *SDARS I*].

<sup>3</sup> *SDARS I* at 4094.

For the Section 112 license for both the SDARS and the PSS, the Copyright Act requires that the Copyright Royalty Judges establish rates that most clearly represent those “that would have been negotiated in the marketplace between a willing buyer and a willing seller,” and that the Judges take into account two specific factors: (1) whether the use of the services may substitute for or promote the sale of phonorecords; and (2) whether the copyright owner or the service provider makes relatively larger contributions to the service ultimately provided to the consuming public with respect to creativity, technology, capital investment, cost and risk.<sup>4</sup>

In measuring the value of the Section 112(e) statutory license, just as in measuring the value of the Section 114(f)(1) license, a key consideration in setting a proper rate is the identification of proper marketplace benchmarks.<sup>5</sup> The Copyright Royalty Judges have essentially adopted the CARP’s observations that: “[T]he quest to derive rates which would have been observed in the hypothetical willing buyer/willing seller marketplace is best based on a review of actual marketplace agreements, if they involve comparable rights and comparable circumstances.”<sup>6</sup>

As I will explain below, in reviewing the most closely analogous marketplace agreements, I come to three conclusions about the proper royalty rate for ephemeral copies under Section 112(e). First, marketplace benchmarks as well as basic economic theory demonstrate that ephemeral copies have economic value to services that publicly perform sound recordings because these services cannot as a practical matter properly function without those copies.

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<sup>4</sup> 17 U.S.C. § 112(e)(4).

<sup>5</sup> *SDARS I* at 4088 (explaining that “a good starting point for the determination of what constitutes a reasonable rate encompassing the four [Section 801(b)] policy factors is to focus on comparable marketplace royalty rates as ‘benchmarks,’ indicative of the prices that prevail for services purchasing similar music inputs”). I recognize that the Section 114 standard involves a slightly “broader scope” than the “willing buyer/willing seller” standard, *id.*, but I do not believe that the “broader scope” should materially impact the value of the Section 112(e) license.

<sup>6</sup> In re Rate Setting for Digital Performance Right in Sound Recordings and Ephemeral Recordings, No. 2000-9 CARP DTRA 1 & 2, slip op. at 43 (CARP Feb. 20, 2002); *see also* Digital Performance Right in Sound Recordings and Ephemeral Recordings (“*Webcasting II*”), 72 Fed. Reg. 24084, 24092 (May 1, 2007) (“we adopt a benchmark approach to determining . . . rates”); Digital Performance Right in Sound Recordings and Ephemeral Recordings (“*Webcasting III*”), 76 Fed. Reg. 13026 (Mar. 9, 2011) (adopting a benchmarking approach of comparable rights and circumstances to determine rates).

Second, marketplace benchmarks show that the royalty rate for ephemeral copies, if directly established, is almost always expressed as a percentage of the overall royalty rate for combined activities under Sections 112 and 114. Third, because the only actors in the hypothetical three-party market established by the statute – PSS/SDARS, record companies, and artists – that have any economic interest in the measure of that allocation are the artists and the copyright owners, SoundExchange’s proposals in *SDARS I* and *Webcasting III* as to that allocation, both of which were adopted by the Judges, are the best measure of how a willing buyer and a willing seller would allocate royalty payments between performance royalties and ephemeral copies, and would value the ephemeral license in the course of a marketplace negotiation for public performances.

#### **A. The Ephemeral License Has Economic Value**

As an initial proposition, it is beyond serious question that ephemeral copies of sound recordings have economic value. This is because, as Congress recognized in enacting Section 112(e), PSS, SDARS, and other music services simply could not exist without the ability to make ephemeral copies. In fact, because PSS and SDARS must have both the ephemeral copy right as well as the performance right in order to operate their services, as a matter of economic theory one could say that the Section 114 right has zero economic value without the Section 112 right, and the Section 112 right has zero economic value without the Section 114 right. One cannot remove the Section 112(e) right from the full complement of rights required by PSS and SDARS any more than one can remove oxygen molecules from water and still have water.

This theoretical proposition is confirmed by a number of marketplace benchmarks as well as by prior precedent of the CRJs. First, in the marketplace deals between record companies and music services, such as webcasters, for non-statutory forms of licenses, it is typical for ephemeral copy rights to be expressly included among the grant of rights provided to the services. Most of these agreements do not set a distinct rate for those ephemeral copies, incorporating them instead into the overall rate that the music services pay for the combined ephemeral copy rights and performance rights. Nonetheless, economic theory teaches that rational companies do not give away something for nothing. Because these ephemeral copy rights are essential for the music providers to operate their services, it follows that the value of

ephemeral copy rights has been included in the overall rate that webcasters pay under these agreements.

Second, I am aware of several agreements over the years between record companies and services that publicly perform sound recordings that do establish specific rate mechanisms for ephemeral copies. For example, I have reviewed an agreement between a major record label and a webcaster that covered ad-supported internet radio service, subscription radio service, and on-demand streaming and recited the parties' agreement that 10% of the royalty payments made under the agreement shall be designated as payment for ephemeral copies. Other agreements have contained similar language. For example, in *SDARS I* and *Webcasting II* the CRJs were presented with evidence of agreements negotiated by Sony BMG and by Warner Music Group which provided that 10% of the overall fees for streaming are attributable to the making of ephemeral copies.<sup>7</sup>

Third, I am also aware that, more recently, SoundExchange negotiated a number of voluntary agreements for the Section 112 and 114 rights at issue in the *Webcasting III* proceeding. In those agreements, the willing participants in the market agreed to structure the ephemeral reproduction rate as an allocation of the correlative performance royalty.<sup>8</sup>

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<sup>7</sup> See *Webcasting II* at 24101. The actual rates established in such marketplace agreements, while potentially informative, are not necessarily the best proxy for the ephemeral rate in the instant proceeding. These agreements are made without statutory constraints on how ephemeral and performance royalties are allocated between copyright owners and artists. Had these agreements been bound by such statutory conditions, then the outcomes may very well have been different. But these agreements are relevant in two important ways: First, they demonstrate that willing buyers and willing sellers do trade in ephemeral rights, which would be economically irrational if they had no value. Second, as discussed more fully in the next section below, they demonstrate that the payments for ephemeral rights, even absent regulatory constraint, employ a percent-of-total mechanism where ephemeral royalties are expressed as a percentage of payments metered on performances.

<sup>8</sup> Notification of Agreements Under the Webcaster Settlement Act of 2008, Agreed Rates and Terms for Broadcasters, 74 Fed. Reg. 9293, 9299 (2009); Notification of Agreements Under the Webcaster Settlement Act of 2009, Agreed Rates and Terms for Webcasts by Commercial Webcasters, 74 Fed. Reg. 40614 (2009); Notification of Agreements Under the Webcaster Settlement Act of 2009, Agreed Rates and Terms for Noncommercial Educational Webcasters, 74 Fed. Reg. 40614, 40616 (2009).

Fourth, the CRJs have recognized in prior proceedings that the ephemeral copy rights have economic value and have accordingly adopted regulations determining a value to those rights.<sup>9</sup>

**B. It Is Appropriate to Express the Value of Ephemeral Copies as a Fixed Percentage of the Performance Royalty**

Setting the ephemeral rate as a share of the total performance royalty fee does no injustice to economic theory. In fact, marketplace benchmarks consistently confirm that a percentage share is the appropriate measure. The marketplace has spoken with near unanimity in structuring the Section 112(e) ephemeral reproduction license as a percentage of the Section 114 performance royalty where such performance royalty is established. As discussed above, I have seen numerous voluntary agreements between willing buyers and willing sellers in which the rate for the ephemeral reproduction license was expressed as a percentage of the performance royalty. Similarly, as mentioned above, SoundExchange has previously negotiated a number of voluntary agreements concerning Section 112 and 114 rights similar to those at issue in this proceeding. There, again, the participants, although operating in the context of the statutory license, agreed to structure the ephemeral reproduction rate as an allocation of the correlative performance royalty.<sup>10</sup>

Thus, it appears that, where a rate for ephemeral copies is set in the marketplace, it is set as a percentage of overall royalties. As a structural matter, the available evidence suggests that setting the ephemeral rate as a percentage of an overall payment is consistent with marketplace negotiation. Moreover, the CRJs have accepted this view and adopted regulations setting the Section 112(e) royalties as a percentage of Section 114 performance royalty in the remand of the prior SDARS proceeding and in the Webcasting III proceeding.<sup>11</sup>

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<sup>9</sup> See, e.g., 37 C.F.R. § 382.12; 37 C.F.R. § 380.22.

<sup>10</sup> Although these agreements did not set the specific allocation, but left that open to future determination, the point here is that the willing buyers and willing sellers agreed to structure the ephemeral rate as an allocation of the performance rate.

<sup>11</sup> Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, 75 Fed. Reg. 5513 (Feb. 3, 2010); *Webcasting III* at 13027; see also 37 C.F.R. § 382.12; 37 C.F.R. § 380.22.

**C. The Best Market Benchmark is the Agreement Between Artists and Record Companies.**

Having established that the Section 112(e) ephemeral reproduction right clearly has value and is best expressed as a percentage of a bundled Section 112/114 royalty where such royalty is set, the final step in the analysis is to determine the appropriate percentage. As noted above, most agreements that set a rate for ephemeral copies specify that rate as a percentage of total royalty payments. Given the nature of the rights at issue, that is not a surprising outcome. Where performance royalties are negotiated in a free market setting, that is, outside of the Section 114 context, the copyright owner (in this case the record companies) and the service provider should have less at stake with respect to the allocation of payments between ephemeral copies and performances.

By contrast, Congress radically altered this market dynamic when it comes to the statutory licenses. There is a very significant difference between payments under the Section 112(e) compulsory license and the Section 114 compulsory license: payments under Section 114 are by law split between copyright owners and artists, while payments under Section 112(e) go entirely to copyright owners. The implication of this phenomenon is immediate. The sharing of income between record companies and artists for performances is set by law. Thus, if it is to have any relevance for the Judges, the willing buyer/willing seller market analysis suggested by Section 112(e) for ephemeral rates must reflect this statutory alteration to the market dynamics whereby the artists and the record companies jointly have a real interest in negotiating the Section 112(e) rate while the PSS and SDARS (as the willing buyers) do not.

By the very nature of the statute, the agreements reached under the constraints relevant in this proceeding will not be the same as in the unregulated market. Evidence suggests that rates agreed upon between the “willing buyer” in this hypothetical market – the PSS and SDARS – and the “willing seller” – the record companies – will either embody the ephemeral copy rate in a bundled rate or express the ephemeral rate as a percentage of the total overall royalty payment. If so, the buyer is indifferent to the allocation of payments between ephemeral copies and performance royalties. But the “willing seller” – the record companies – will not be so indifferent under the statutory division of royalties that cannot be assumed away. Under plausible conditions, only the record companies and artists are parties to the establishment of

the ephemeral rate, and these parties have arrived at a royalty rate for ephemeral copies that reflects a more market-based allocation of payments between ephemerals and performance royalties.

Because the willing buyer is disinterested with respect to that allocation, the agreement between the record companies and the artists thereby becomes the best indication of the proper allocation of royalties.

My understanding is that recording artists and record companies have determined that the royalty rate for the Section 112 license should be five percent (5%) of the bundled royalties under Section 112(e) and 114. This is the percentage that SoundExchange proposed last year in resolving the remand of the prior SDARS proceeding. The CRJs accepted and adopted that settlement. In addition, in the *Webcasting III* proceeding, based on the evidence in the record (which is essentially the same as the evidence set forth herein) and a stipulation between the parties, the CRJs accepted and adopted the same proposed 5% ephemeral rate.<sup>12</sup> And of course SoundExchange is again proposing the same 5% proposal in this proceeding.

In light of the principles I have articulated above, SoundExchange's proposal is reasonable and credibly represents the result that would in fact obtain in a hypothetical marketplace negotiation between a willing buyer and the interested willing sellers under the relevant constraints.

## **II. Framework for Evaluating Royalty Rates Paid by the PSS to SoundExchange**

Sections 114(f)(1) and 801(b)(1) of the Copyright Act require that the Copyright Royalty Judges establish "reasonable" royalty rates for the Section 114 license that comport with four specific policy objectives:

- (A) to maximize the availability of creative works to the public;
- (B) to afford the copyright owner a fair return for his creative work and the copyright user a fair income under existing economic conditions;

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<sup>12</sup> Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, 75 Fed. Reg. 5513 (Feb. 3, 2010); *Webcasting III* at 13027.

- (C) to reflect the relative roles of the copyright owner and the copyright user in the product made available to the public with respect to relative creative contribution, technological contribution, capital investment, cost, risk, and contribution to the opening of new markets for creative expression and media for their communication; and
- (D) to minimize any disruptive impact on the structure of the industries involved and on generally prevailing industry practices.<sup>13</sup>

It is my understanding that in only one prior case have the Copyright Royalty Judges established performance rates under the 801(b) standard – the SDARS case of 2008.<sup>14</sup> In that decision, the Copyright Royalty Judges outlined a two-step procedure for setting rates under this statute. As a first step, the focus is on identifying comparable marketplace royalty rates that serve as benchmarks, and which are “indicative of the prices that prevail for services purchasing similar music inputs for use in digital programming ultimately made available to consumers.”<sup>15</sup> In other words, the first step is the same willing buyer/willing seller standard that is required for setting the § 112 ephemeral rate outlined above. In the second step, the “broader scope”<sup>16</sup> of Section 801(b) leads to an evaluation of whether the 801(b) policy objectives “weigh in favor of divergence from the results indicated by the benchmark marketplace evidence.”<sup>17</sup> I will follow this two-step process throughout my testimony.

### III. Establishing Rates by Benchmarking

In a rate-setting environment, benchmarking refers to the use of outcomes observed in market transactions – the benchmark market – to aid in establishing a rate in situations where

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<sup>13</sup> 17 U.S.C. § 114(f)(1)(B) and 17 U.S.C. § 801(b)(1).

<sup>14</sup> *SDARS I* at 4084. The Copyright Royalty Judges also previously affirmed a settlement agreement between the PSS and SoundExchange for the royalty that would have been set subject to the 801(b) statutory standard. Adjustment of Rates and Terms for Preexisting Subscription and Satellite Digital Audio Radio Services, 72 Fed. Reg. 71795 (Dec. 19, 2007).

<sup>15</sup> *SDARS I* at 4088.

<sup>16</sup> *SDARS I* at 4088.

<sup>17</sup> *SDARS I* at 4094.



the market does not or is not permitted to operate effectively – the hypothetical target market. Benchmarking is a common method by which to set regulated rates.

The first step in establishing the license fee for the PSS is to define the hypothetical target market, and then to find royalty rates from market transactions to serve as benchmarks for this target market. Ideally, the buyers, sellers, and rights in the benchmark market would be identical to the target market, but experience suggests that benchmarks are rarely if ever perfect. In instances where the nature of the transaction in the benchmark market differs from that in the hypothetical target market, modifications and adjustments are applied to render a more suitable rate.

#### *A. Hypothetical Target Market*

Pursuant to the statutory license, the PSS offer a non-interactive streaming music service composed of multiple, genre-based channels of diverse audio programming delivered over multichannel video systems.<sup>18</sup> Each channel provides a continuous stream of music from a distinct musical genre, including genres such as “Soft Rock,” “Rap,” “Hip Hop and R&B,” “Metal,” “Pop Latino,” and so forth. Music Choice, for example, offers 46 genre-based music channels. The price charged by the PSS to the multichannel video provider for these services does not depend on the hours of programming accessed by the final consumer, and the prices paid by the final consumer also do not depend on the amount of programming accessed. The PSS are music-only services, so their revenues are for music only. But the PSS are distinctive among rights users for a number of reasons.

First, the PSS do not offer services directly to consumers. Rather, they sell their service to multichannel video providers, who then bundle the service with television channels and offer consumers subscriptions to the entire bundled service. Since the PSS offer their service only on a wholesale basis, its revenues may represent only a fraction of the retail value of its service. Some part of the value of the performance rights may be captured by the downstream multichannel video providers.

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<sup>18</sup> <http://www.musicchoice.com/AboutMusicChoice.aspx>. Music Choice offers many other services including video and music on-demand, but such services are not relevant to this proceeding.

Second, the PSS are also somewhat unique in that their service is bundled with vast quantities of video content. It appears that only in rare cases is a PSS service sold as a stand-alone tier by cable systems, so it is difficult to determine exactly the retail value of the PSS service.<sup>19</sup> Yet, the Copyright Royalty Judges have previously determined that the value of the performance right is derived from the “ultimate consumer markets.”<sup>20</sup> The fact that the service is sold in audio-visual bundles, however, does not imply that the PSS are of relatively low value to the subscriber or the multichannel video industry. The sales materials of multichannel video providers suggest that Music Choice, or similar music services, is an important component of their bundled offerings.

### *B. Benchmark Transactions*

As just detailed, the PSS provide a service of a somewhat distinctive nature. In my own review of marketplace agreements in which performance rights are sold by copyright owners to copyright users for digital transmissions, I was unable to find any contract that matched closely the peculiar nature of the PSS’s business. Nevertheless, in my opinion it is possible to use these marketplace agreements as benchmarks in order to establish a zone of reasonableness for revenue-based royalty fees. Given the variety of buyers and business plans represented in the sample of contracts, the resulting zone of reasonableness will necessarily be very wide. Still, the market-based zone of reasonableness is a useful starting point in evaluating the rate proposal offered by SoundExchange.

SoundExchange has proposed a revenue-based royalty fee for the PSS and this is helpful in two respects. First, I can largely limit my attention to the revenue-based rates from the marketplace transactions, even though these agreements typically include multiple rate elements in a “greater of” rate structure.<sup>21</sup> Second, the revenue-based royalty rate is not an absolute payment as are the per-play or per-subscriber rate elements typically found in market

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<sup>19</sup> Based on an Internet search, I was able to find two instances of a Music Choice Tier including XIT Communications (\$2.75 per month) and Kalona Cooperative Telephone Company (\$3.95 per month).

<sup>20</sup> *SDARS I* at 4093.

<sup>21</sup> As discussed below, the royalty payment under the “greater of” approach might be the highest payment calculated from a revenue-based fee, a per-subscriber fee, or a per-play fee.

agreements. Rather, the revenue-based rate scales the royalty payment to the revenues of the copyright user, and these revenues are determined by the value of the service offered to consumers. Therefore, in marketplace agreements, a common revenue-based royalty rate is often applied across a wide range of services, even when the per-play or per-subscriber rates differ significantly between them. Further, the transferability of revenue-based rates across services of differing values in the consumer market was embraced by the Copyright Royalty Judges in the *Webcasting II* and *Webcasting III* decisions.

Relying on analysts working under the direction of Professor Ordover (whose testimony also relies on these marketplace agreements), I reviewed the royalty rates of numerous marketplace agreements between record companies and copyright users offering digital transmissions of sound recordings. Consistently, these contracts employ a “greater of” methodology for establishing the royalty obligation. In most cases, the rate structure contains at least two of these three components: i) a revenue-based royalty fee applied to retail revenues; ii) a per-play royalty fee; and iii) a per-subscriber royalty fee. The actual royalty payment is then equal to the greatest of these calculations.

This “greater of” approach to royalty rates serves many legitimate purposes, which is why it is used in many private royalty contracts. By targeting different measures of output (revenues, subscribers, plays), it enhances the ability of the copyright owner to share in the value created by its copyrights and reduces the ability of copyright users to “game the system” in an effort to reduce royalty payments. Picking just one of the “greater of” rate elements in a statutory setting eliminates these benefits, and necessarily means that the statutory royalty payment will always be less than or equal to the payment made in corresponding marketplace transactions. Including the per-subscriber and per-play rate elements in market contracts makes it certain that copyright owners will be paid for their property even in cases in which the copyright user is unable to obtain revenues sufficient to render a reasonable revenue-based royalty payment for the performance rights. Including a revenue-based fee makes certain that the copyright owner is compensated for the option created by use of its rights (*i.e.*, the availability of performances upon request) even if that option is not exercised (no listening occurs). Both the option and the use have market value, and the rate structure in marketplace agreements reflects this fact.

To my knowledge, the number of plays cannot be accurately measured for the PSS. As a consequence, the royalty rate structure for the PSS cannot be based directly on the number of plays. As I explained above, in the absence of a per-play rate, a percentage-of-revenue rate has benefits. But there are risks to such a rate structure that I believe are relevant in the context of the PSS. Most importantly, the use of a revenue-based royalty fee to the exclusion of other types of fees exposes copyright owners and performers to the risk of inadequate compensation for performance rights when a business plan generates little to no revenues. In *Webcasting II*, the Copyright Royalty Judges recognized that copyright owners could “receive little compensation for the extensive use of their property”<sup>22</sup> under a revenue-based royalty fee. I believe this concern is very much applicable to the present case, especially with respect to the intermediary role that I discuss in detail below.<sup>23</sup>

In the reviewed marketplace contracts, the range of revenue-based contract rates is 45% to 70%. Table 1 summarizes the type of service provided by the copyright user and the percentage rate applied.

Type	% of Retail Revenues
Permanent Audio Download	70%
Cellular (Ringback/Ringtone)	45% to 50%
Interactive Subscription (Portable)	60% to 65%
Interactive Subscription (Non Portable)	50% to 60%

<sup>22</sup> *Webcasting II* at 24090.

<sup>23</sup> Another problem with the revenue-based fee is that it has a potential practical defect in that buyers may be able to strategically shift revenues to affiliated firms or to uses that are outside the scope of the statutory license, thereby minimizing the royalty liability. In my opinion, this strategic defect is a very serious concern in this proceeding, because it is my understanding that Music Choice is owned, in part, by the nation’s largest cable television operators, including Comcast, Cox, and Time Warner Cable. This affiliation raises the possibility that the deals struck between Music Choice and much of the cable industry did not arise in arm’s length negotiations. Without more information about the ownership and control of Music Choice, it is difficult to fully analyze the impact, if any, on Music Choice’s PSS revenues.

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Notably, even though the types of services differ substantially in nature – for example, permanent music downloads versus interactive webcasting -- the revenue-based fees suggest a range of revenue payable for the use of sound recordings across all uses. Even for a single user, while the per-play or per-subscriber rates may differ across the type of services offered based on retail pricing differences, the revenue-based fee is relatively uniform across such services. In marketplace transactions, it appears that the particularities of services are presumed to be reflected in revenue differences, such that the application of a uniform revenue-based rate applied across very different services is acceptable to both sellers and buyers, thereby suggesting that the differences in revenues across services adequately reflect the differences in market values. Consequently, it is reasonable to conclude that revenue-based fees are not unique to particular services, and the minimum and maximum of the market rates found in my sample of contracts -- 45% to 70% -- represent observed bounds on the zone of reasonableness for a revenue-based rate under a market-based mechanism.

SoundExchange's proposed 45% rate is equal to the lower bound of the zone of reasonableness for a revenue-based rate, where this zone considers a broad range of digital programming services. As such, it could be presumed to be a reasonable proxy for a market outcome. However, all of the revenue-based rates from the sample of agreements summarized in Table 1 apply to *retail* revenues. The revenues of Music Choice are not, however, retail revenues, but only a fraction thereof. The unique features of the PSS with respect to revenue and consumer value deserve additional attention.

#### *1. Revenues and the Intermediary Role*

The PSS are delivered to end users primarily through multichannel video programming distributors such as cable television systems. The revenues of webcasters, in contrast, reflect the market value of the music content in the ultimate consumer market. The PSS do not participate in the ultimate consumer market. Rather, the multichannel video provider retransmitting their service participates in that market. Previously, the Copyright Royalty Judges indicated the value of the music rights in the input market -- that is, the market where the rights are exchanged -- should be "driven by or derived from the ultimate consumer markets in which

these inputs are put to use.”<sup>24</sup> Furthermore, the Copyright Royalty Judges expressed concern that the copyright owners could “receive little compensation for the extensive use of their property”<sup>25</sup> as a consequence of particular business plans that lead to low revenues. The intermediary role played by the PSS implies that their revenues are unlikely to fully account for the value of the sound recordings in the consumer market. In fact, a share of the value of the services broadcast over cable systems is expected to be captured by the downstream video provider, not by the PSS.

The business of the multichannel video provider is to acquire and then distribute to its subscribers audio and video programming over its network, whether terrestrial or satellite, for a fee. In order to pay for the network, the video provider must mark up the incremental cost of the programming inputs, thereby creating a gross profit margin. The retail price ( $P$ ) is equal to a markup ( $M$ ) of incremental cost ( $C$ ), or  $P = M \times C$ . As long as a programming service generates sufficient revenue to justify its input price and to justify the assignment of potentially scarce capacity to its retransmission, then it is sensible for the multichannel video provider to include the programming service in its package.<sup>26</sup> Thus, the markup is always no less than and probably greater than 1, since profits are lower if the service does not at least cover its cost.<sup>27</sup> As such, the cost of the programming to the video provider, which equals the revenue of the programmer, is only a fraction (equal to the inverse of  $M$ ) of the final retail price for that programming. Plainly, the intermediary role played by PSS is significant when considering the appropriate size of a revenue-based royalty rate. The royalty rates applied to retail revenues – 45% to 70% -- are too small when applied to the revenues of a programmer like the PSS, since

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<sup>24</sup> *SDARS I* at 4093.

<sup>25</sup> *Webcasting II* at 24090.

<sup>26</sup> In the presence of a binding capacity constraint, services that have large positive margins may be excluded from the bundle because the capacity is exhausted from the retransmission of other, more profitable services.

<sup>27</sup> This argument follows from the basic rule of profit maximization – programming will be added to the bundle as long as the change in revenues (marginal revenue) exceeds the change in cost (marginal cost) of doing so. The economic literature contains a wide variety of potential markup rules, most of which are based on the own-price elasticity of demand for service.

the programmer's revenue are below the retail revenues that can be attributed to the programming input. SoundExchange's proposed rate of 45%, consequently, is, at best, at the low end of the range of reasonable rates (assuming  $M = 1$ ) and possibly discounted even further (assuming  $M > 1$ ) because of the intermediary nature of the PSS as compared to market agreements for similar rights where revenue-based rates are applied to retail revenues.

In the presence of a markup over incremental cost, a portion of the retail value of the performance rights is captured by entities that benefit from the statutory license but do not have to pay for the performance rights in relation to the value (i.e., the multichannel video providers). The Copyright Royalty Judges' concern that the revenue-based rate may lead to a situation where the copyright owners could "receive little compensation for the extensive use of their property"<sup>28</sup> is relevant in this case. A minimum per-subscriber fee could in principle be used to address this distortion, and discovery into the fees paid by the cable companies to the PSS may allow for the development of such a proposal in order to address the possible shortcomings of a percentage-of-revenue rate in the context of the unique features of the PSS. At a minimum, the structure of the PSS industry, wherein much of the actual retail value of the use of music is shielded from the royalty pool, supports SoundExchange's request for a substantial increase in the royalty rate.

#### **IV. The § 801(b) Policy Objectives**

The Copyright Act requires that the Copyright Royalty Judges establish royalty rates for the PSS that comport with the four specific policy objectives of 17 U.S.C. § 801(b). Previously, the Copyright Royalty Judges concluded that implementation of the 801(b) standard requires the consideration of "whether these policy objectives weigh in favor of divergence from the results indicated by the benchmark marketplace evidence."<sup>29</sup>

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<sup>28</sup> *Webcasting II* at 24090.

<sup>29</sup> *SDARS I* at 4094.

A. *To Maximize the Availability of Creative Works to the Public*

As the royalty payments for sound recordings rise, the incentives to create more recordings likewise rise. That is, the supply curve of sound recording content is upward sloping. If the goal is to maximize the availability of creative works, this logic supports higher royalty rates. However, maximizing the effective availability of creative works requires both the creation of and dissemination of such works to the public. Higher royalty rates make it more difficult for copyright users to profit from the performance of sound recordings to end users, thereby discouraging dissemination. That is, the demand for content is downward sloping, and this reality tends to support lower royalty rates to promote availability. A change in royalty rates, therefore, has two opposing effects in relation to the availability of creative works, one encouraging and the other discouraging greater availability.<sup>30</sup> Some sort of balancing of these tendencies is required, and market forces are often presumed to play such a role. In the prior SDARS decision, the Copyright Royalty Judges concluded that “an effective market determines the maximum amount of product availability consistent with the efficient use of resources.”<sup>31</sup> This is exactly correct.

My analysis of SoundExchange’s proposal is based on the royalty rates observed in marketplace agreements between willing buyers and willing sellers. The observed outcomes presumably reflect the balance of supply-side and demand-side considerations. As such, the 801(b)(1)(A) policy objective provides a sound basis for a change in the status quo, thereby raising the royalty rate presently paid by the PSS to a level more consistent with a market outcome, as proposed by SoundExchange. In fact, the below-market rate paid by the PSS today on revenues that do not accurately reflect the full value of the service seems to violate this policy objective. If the PSS were to cease offering their services, presumably their business and customers would shift to alternative providers of digital music. Since these alternative suppliers pay higher royalties and are evidently effective disseminators of music content, this

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<sup>30</sup> This logic has been recognized by the Copyright Royalty Judges in the past. *See, e.g., SDARS I* at 4094.

<sup>31</sup> *SDARS I* at 4094. “We agree with Dr. Ordover that ‘voluntary transactions between buyers and sellers as mediated by the market are the most effective way to implement efficient allocations of societal resources.’ Ordover WDT at 11. “



shift of business would lead to a higher level of availability of creative works to the public by stimulating supply, and having little to no effect on demand.

*B. To Afford the Copyright Owner a Fair Return for His Creative Work and the Copyright User a Fair Income under Existing Economic Conditions*

“Fairness” is not a term of art in the economics profession. In some cases, “fairness” is given economic meaning by an appeal to “willing buyer/willing seller” outcomes. In *SDARS I*, the Copyright Royalty Judges assigned an economic meaning to fairness, concluding that “a fair income is ... consistent with reasonable market outcomes.”<sup>32</sup>

Also, the 801(b)(1)(B) objective expresses concern for a “fair” outcome for both the copyright owner and the copyright user. The objective does not appear to infer favoritism to one side of the market or the other. Moreover, the economic concept of fairness does not suggest rates should be set to guarantee a particular user’s success. The marketplace offers no guarantees of success or profits. As observed by the Copyright Royalty Judges in *SDARS I*, “[a]ffording copyright users a fair income is not the same thing as guaranteeing them a profit in excess of the fair expectations.”<sup>33</sup> From an economic perspective, this is exactly correct.

Applying the Copyright Royalty Judges’ prior conclusion that “a fair income is ... consistent with reasonable market outcomes,” which is consistent with other interpretations of “fairness,” I see no reason to modify SoundExchange’s proposed rate downward to satisfy this objective. In my opinion, the 801(b)(1)(B) objectives encourage an upward adjustment to the proposed rate to reflect the fact that the PSS’s revenues grossly understate the market value of the performance rights.

Moreover, permitting certain users, even if financially troubled, to pay a royalty rate much less than their competitors may promote inefficient outcomes and subsidize particular business plans. This is a basic principle of economics. If market outcomes are the standard by which efficiency and fairness are judged, then favoritism to particular firms in a competitive market is

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<sup>32</sup> *SDARS I* at 4095.

<sup>33</sup> *SDARS I* at 4095.

unjustified. The Copyright Royalty Judges have previously concluded that a “fair income” does not permit a copyright user to “utilize its other resources inefficiently,”<sup>34</sup> and this finding is consistent with the definition of fairness that is based on market outcomes. If the user paying the lower rate takes business from the user paying a higher rate, then the income of the copyright owner is diminished, and this result hardly seems “fair,” since no seller would intentionally sabotage its own profits in an unregulated market setting.

*C. To Reflect the Relative Roles of the Copyright Owner and the Copyright User in the Product Made Available to the Public with Respect to Relative Creative Contribution, Technological Contribution, Capital Investment, Cost, Risk, and Contribution to the Opening of New Markets for Creative Expression and Media for Their Communication*

I see no reason to believe, and have seen no evidence to support, an argument that the PSS make a contribution to availability or creative expression that is relatively more significant than those services considered as benchmarks. Across a wide range of digital programming services, with varying level of investment and risk, marketplace evidence indicates that the royalty fee for a blanket license to sound recordings should be between 45% and 70% of *retail* revenues. Considering the intermediary role played by the PSS, this range should be shifted in the direction of higher rates.

*D. To Minimize Any Disruptive Impact on the Structure of the Industries Involved and on Generally Prevailing Industry Practices<sup>35</sup>*

At present, the PSS pay a combined Section 112 and 114 royalty rate to SoundExchange of 7.25% (increasing to 7.5% in 2012) of their revenues derived from the sale of services to the multichannel video providers.<sup>36</sup> Marketplace evidence is consistent with SoundExchange’s proposal for a significant rate increase.

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<sup>34</sup> SDARS I at 4095.

<sup>35</sup> 17 U.S.C. § 114(f)(1)(B) and 17 U.S.C. § 801(b)(1).

<sup>36</sup> 37 C.F.R. §§ 382.2(a) & (b).

The 801(b)(1)(D) objective, as I understand it, is best understood as a concern over the economic impacts of changes in rates, rate structures, or other factors influenced by the decisions of the Copyright Royalty Judges.<sup>37</sup> In large part, SoundExchange’s proposal addresses such concerns. First, the proposed rate of 45% is still highly favorable to the PSS, at least relative to marketplace standards. Second, the proposed rate is revenue-based, which is a means of calculating royalties already used in the industry, and is thus familiar and consistent with prevailing industry practices, a concern the Copyright Royalty Judges have previously raised.<sup>38</sup> Third, the proposal attenuates the impact of rate changes by phasing in those increases over time. SoundExchange proposes to move from the current 7.5% rate to the 45% rate incrementally over a period of five years.

That said, Section 801(b)(1)(D) is not focused just on the effects for particular copyright users, but instead contemplates disruption to the “structure of the industries involved.” In this case, industry structure is *not* just a matter of the PSS, however, because there are other entities providing essentially identical services under 37 C.F.R. § 383 (audio-only subscription services transmitted to residential subscribers of a television service ). Certainly, a change in rates may disrupt the business of a particular copyright user, but in doing so the change may favor more efficient providers of the same service with better business plans.<sup>39</sup> Shifting business to more

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<sup>37</sup> In *SDARS I*, the Copyright Royalty Judges provided some guidance on the economic considerations it found relevant to this objective. The Copyright Royalty Judges characterized a “disruptive” impact as one that “directly produces an adverse impact that is substantial, immediate and irreversible in the short-run because there is insufficient time for either the SDARS or the copyright owners to adequately adapt to the changed circumstances produced by the rate change and, as a consequence, such adverse impacts threaten the viability of the music delivery service currently offered to consumers under this license.” *SDARS I* at 4097.

<sup>38</sup> *SDARS I* at 4087 (“[T]he parties have until now lived under a revenue-based regime. Therefore the parties are most familiar, and perhaps most comfortable, with the operation of a revenue-based metric. The value of such familiarity lies in its contribution towards minimizing disputes and, concomitantly, keeping transactions costs in check.”).

<sup>39</sup> In its *SDARS I* decision, the Copyright Royalty Judges concluded that a royalty rate that would cause the SDARS to cease operations would be disruptive. *SDARS I* at 4097 (“Economic experts for both sides agree that a royalty rate that would cause the SDARS to cease operating or dramatically change the nature of its product would clearly be disruptive.”). In the case of the SDARS, however, the loss of a provider is the loss entirely of a

efficient, more innovative firms may be termed “disruptive,” but such a shift is the lifeblood of market outcomes. When consumers, whether at the wholesale or retail level, can choose among multiple sellers of the same product (as is the case here),<sup>40</sup> then market outcomes, obtained on a level playing field, should be trusted in determining the success or failure of any given industry participant. The use of benchmarks, as is common in setting the rates for performance rights, intends to embrace market outcomes, not overrule them.

The current PSS royalty rates provide for payments for performance rights that are well below a level acceptable to a willing seller. Moving to a rate consistent with marketplace outcomes, particularly if done too quickly, could be disruptive. That said, in my opinion, the current practice of applying an exceedingly low rate to deflated revenues is disruptive of industry structure, especially where there are identical services already paying a higher rate.

## V. Conclusion

With respect to the ephemeral rate, economic theory and marketplace evidence support SoundExchange’s proposal of a bundled royalty rate for the performance right and the ephemeral right, with 5% of the royalty attributable to the ephemeral. With respect to the PSS, marketplace evidence implies that SoundExchange’s proposal for the PSS, which ramps up to 45% of revenues in 2017 for the PSS, appears to be at the low end of the range of reasonable rates and possibly discounted even further because of the unique structure of the PSS as compared to market agreements for similar rights.


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unique entire mode of delivery – mobile and fixed satellite radio. The PSS, in contrast, face many competitors in the digital programming market, including from other providers of the exact same product.

<sup>40</sup> *Satellite Entertainment Pioneers DIRECTV and XM Satellite Radio Join Forces to Deliver 72 Channels of XM's Acclaimed Programming to DIRECTV Customers Nationwide*, DIRECTV Press Release (September 29, 2005), available at <http://investor.directv.com/releasedetail.cfm?releaseid=286552>; *SonicTap-XM Music Channel Comparison*, DIRECTV News (December 22, 2009), available at <http://www.directv.com/DTVAPP/global/article.jsp?assetId=P6590007>.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: 11/29/11

  
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George S. Ford

# **Appendix A**

**George S. Ford, Ph.D.**

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“The Broadband Adoption Index: Improving Measurements and Comparisons of Broadband Deployment and Adoption,” with T. R. Beard, L. J. Spiwak, and M. L. Stern. (Forthcoming in the *Federal Communications Bar Journal*).

“HAC Standard Errors and the Event Study Methodology: A Cautionary Note,” with J. Jackson. (Forthcoming in *Applied Economics Letters*).

“Sample Size and the Accuracy of the Generalized Lambda Distribution,” with S. Skinner. (Forthcoming in *Communications in Statistics - Simulation and Computation*).

“Network Neutrality and Foreclosing Market Exchange,” with T. R. Beard, T. M. Koutsky, and L. J. Spiwak. (Forthcoming in *International Journal of Management and Network Economics*).

“Developing a National Wireless Regulatory Framework: A Law and Economics Approach,” with T. R. Beard, T. M. Koutsky, and L. J. Spiwak. *CommLaw Conspectus*, Vol. 16, 2008.

“Constituency Size and the Growth of Public Expenditures: The Case of the United Kingdom,” with M. Thornton and M. Ulrich. *Journal of Public Choice and Finance*, Vol. 24, 2006 (published in 2008).

“The Competitive Effects of Quantity Discounts,” with T. R. Beard and D. L. Kaserman. *Antitrust Bulletin*, Vol. 52, 2007.

“Network Neutrality and Industry Structure,” with T. R. Beard, Thomas M. Koutsky and Lawrence J. Spiwak. *Hastings Communications and Entertainment (Comm/Ent) Law Journal*, Vol. 29, 2007.

“A La Carte and ‘Family Tiers’ as a Response to a Market Defect in the Multichannel Video Programming Market,” with T. R. Beard and Thomas M. Koutsky. *CommLaw Conspectus*, Vol. 15, 2006.

“The Impact of Video Service Regulation on the Construction of Broadband Networks to Low-Income Households,” with Thomas M. Koutsky and Lawrence J. Spiwak. *I/S: A Journal of Law and Policy for the Information Society*, Vol. 3, 2007.

“Competition After Unbundling: Entry, Industry Structure and Convergence,” with Thomas M. Koutsky and Lawrence J. Spiwak. *The Federal Communications Law Journal*, Vol. 59, 2007.

“Does Municipal Supply of Communications Crowd-Out Private Communications Investment? An Empirical Study.” *Energy Economics*, Vol. 29, 2007.



"Broadband and Economic Development: A Municipal Case Study from Florida," with T. M. Koutsky. *Review of Urban and Regional Development Studies*, Vol. 17, 2006.

"The Economics of Build-out Rules in Cable Television," with T. M. Koutsky and L. W. Spiwak. *Hastings Communications and Entertainment (Comm/Ent) Law Journal*, Vol. 28, 2006.

"Issues in Empirical Merger Analysis," with T. Randolph Beard  
Introductory article by the Guest Editors in a Special Issue of the  
*International Journal of the Economics of Business*, Vol. 13, 2006.

"Empirical Simulation of Mergers: The Cingular and AT&T Wireless Merger," with T. Randolph Beard and Richard P. Saba. *International Journal of the Economics of Business*, Vol. 13, 2006.

"Event Studies for Merger Analysis: An Evaluation of the Effects of Non-Normality on Hypothesis Testing," with Audrey D. Kline. In *Antitrust Policy Issues*, Nova Publishers, 2006.

"Are Unbundled and Self-supplied Telecommunications Switching Substitutes? An Empirical Study," with T. Randolph Beard. *International Journal of the Economics of Business*, Vol. 12, 2005.

"Misleading Inferences from Panel Unit-Root Tests: A Comment," with John Jackson and Audrey Kline. *Review of International Economics*, Vol. 14, 2006.

"Splitting the Baby: An Empirical Test of Rules of Thumb in Regulatory Price Setting," with T. Randolph Beard. *Kyklos*, Vol. 58, 2005.

"Mandated Access and the Make-or-Buy Decision: The Case of Local Telecommunications Competition," with T. Randolph Beard and Thomas W. Koutsky. *Quarterly Review of Economics and Finance*, Vol. 45, 2005. Presented at *The Drivers and Significance of Local Telecommunications Competition*, United States Department of Justice, July 23, 2002 as "Facilities-based Entry in Local Telecommunications: An Empirical Investigation").

"On the Relationship between Telecommunications Investment and Economic Growth: Three Empirical Studies," with R. Beil and J. Jackson. In *Economic Growth Issues*, Nova Publishers, 2005.

"On the Relationship between Telecommunications Investment and Economic Growth in the United States," with R. Beil and J. Jackson. *International Economic Journal*, Vol. 19, 2005.

"Access Charge Reductions and Long Distance Rates: A Bootstrap Analysis," with T. Randolph Beard, R. Carter Hill, and Richard P. Saba. *Empirical Economics*, Vol. 30, 2005.

"Fragmented Duopoly: A Conceptual and Empirical Investigation," with T. Randolph Beard, R. Carter Hill, and R. Saba. *Journal of Business*, Vol. 78, 2005.

"Competition and Investment in Telecommunications," with John D. Jackson. *Atlantic Economic Journal*, Vol. 32, 2004.

"Pursuing Competition in Local Telephony: The Law and Economics of Unbundling and Impairment," with T. R. Beard and R. B. Ekelund Jr., *Journal of Law, Technology and Policy*, Vol. 2003, Fall 2003.

The Financial Implications of the UNE-Platform: A Review of the Evidence," with T. Randolph Beard and Christopher C. Klein *CommLaw Conspectus: Journal of Communications Law and Policy*, Vol. 12, 2004. Also published in the handbook for the 21<sup>st</sup> Annual Institute on Telecommunications Policy & Regulation, Practising Law Institute, New York, 2003.

"Innovation, Investment, and Unbundling: An Empirical Update," with Robert B. Ekelund Jr., *Yale Journal on Regulation*, Vol. 20, 2003.

"Discrimination and Minority Ownership in Radio Broadcasting," with Audrey B. Davidson and Barry Hayworth, *International Journal of the Economics of Business*, Vol. 10, 2003.

"Preliminary Evidence on the Demand for Unbundled Elements in Telephony," with Robert B. Ekelund, Jr., *Atlantic Economic Journal*, Vol. 30, 2002.

"Demand Elasticities for International Message Telephone Service," with John D. Jackson, *Applied Economics*, Vol. 36, 2004.

"Competition and Market Structure in Local Exchange and Long Distance Telecommunications Markets," with T. Randolph Beard. *International Handbook on Telecommunications Economics*, Vol. I, Ch. 6, Gary Madden ed., Edward Elgar: 2002.

"Why Adco? Why Now? An Economic Exploration into the Future of Industry Structure in Local Telecommunications Markets," with T. Randolph Beard and Lawrence Spiwak. *Federal Communications Law Journal*, Vol. 54, 2002.

"Price, Quality, and Consumer Welfare in the Cable Television Industry," with T. Randolph Beard, Robert B. Ekelund, Jr., and Richard P. Saba. *Journal of Regulatory Economics*, Vol. 20, 2001

"The Fallacy of Regulatory Symmetry: An Economic Analysis of the "Level Playing Field" in Cable TV Franchising Statutes," with Thomas W. Hazlett. *Business & Politics*, Vol. 3, 2001.

"The Measurement of Merger Delay in Regulated and Restructuring Industries," with Robert B. Ekelund Jr. and Mark Thornton. *Applied Economics Letters*, Vol. 8, 2001.

"Changing Industry Structure: The Economics of Entry and Price Competition" with Jerry B. Duvall. *Telecommunications and Space Journal*, Vol. 7, 2000.

"Market Power in Radio Markets: An Empirical Analysis of Local and National Concentration," with Robert B. Ekelund, Jr. and Thomas Koutsky. *Journal of Law and Economics*, Vol. XLIII, 2000.

"TV Advertising, Local Markets and Merger Guidelines: An Empirical Study," with Robert B. Ekelund, Jr. and John D. Jackson. *International Journal of the Economics of Business*, Vol. 7, 2000.

"Preserving Free Television? Some Empirical Evidence on the Efficacy of Must Carry," with John D. Jackson. *Journal of Media Economics*, Vol. 13, 2000.

"Is Radio Advertising a Distinct Local Market: An Empirical Analysis," with R. B. Ekelund, Jr. and John D. Jackson. *Review of Industrial Organization*, Vol. 14, 1999.

"On the Interpretation of Policy Effects from the Estimates of Simultaneous Systems of Equations," with John D. Jackson. *Applied Economics*, Vol. 30, 1998.

"Information Costs and Nirvana Revisited: Edwin Chadwick on Nineteenth Century Urban Funeral Markets," with Robert B. Ekelund, Jr. *Journal of Regulatory Economics*, Vol. 12, 1997. Reprinted in the *The Foundations Of Regulatory Economics*, Ed. R. B. Ekelund, Jr., Edward Elgar Publishing.

"Horizontal Concentration and Vertical Integration in the Cable Television Industry" with John D. Jackson. *Review of Industrial Organization*, Vol. 12, 1997.

#### **CURRENT RESEARCH PROJECTS FOR PUBLICATION (Partial List):**

"An Economic Analysis of Late Fees," with T. R. Beard.

"An Investigation into the Influence of Retail Gas Prices on Oil Company Profits."

"An Analysis of RESET for Conditional Mean Models," with J. Jackson.

"Selecting Members for Panel Unit Root Tests," with J. Jackson.

"The Pricing of Pole Attachments," with T. Koutsky and L. Spiwak.

"Consumers and Wireless Carterfone: An Economic Perspective," with T. Koutsky and L. Spiwak.

**EXAMPLES OF LITIGATION, REGULATORY DOCUMENTS and TESTIMONY:**

*Developing a "National Broadband Strategy" - Understanding the OECD Rankings and the Drivers of Broadband Adoption.* Presentation at the U.S. Congress Rayburn House Office Building (July 28, 2008).

*Testimony Before the Federal Communications Commission's Open Meeting on Network Neutrality and Broadband Network Management,* Stanford University (April 17, 2008).

*Testimony Before the House Committee on Commerce and Energy - Subcommittee on Telecommunications and the Internet Hearing on "Digital Future of the United States: Part IV: Broadband Lessons from Abroad" (April 24, 2007).*

*Testimony Before the House Committee on Commerce and Energy - Subcommittee on Telecommunications: A Discussion Draft Addressing Broadband Mapping and Data Collection (May 17, 2007).*

*Capitol Hill Inter-Active Workshop: Sound Internet Policy for the 21st Century: Understanding the Economic Fundamentals (Feb. 2007).*

*Broadband Connectivity Competition Policy, Federal Trade Commission (Feb. 2007).*

*3rd Annual State of the Net Conference 2007, Advisory Committee to the Congressional Internet Caucus (Jan. 2007).*

*Carter Estate v. CSXT, Louisville, Kentucky (2006).*

*Ken Hecht v. Comcast of Indiana, Inc., et al, Indianapolis, Indiana (2005/6).*

*"Crummy Duopoly" or Vigorous Inter-Modal Competition? The Impact of Cable Franchise Requirements on New Fiber Builds.* Phoenix Center Congressional Briefing (July 21, 2005).

*Florida Bill HB 1325 and SB 1322 (Municipal Broadband).* Testimony before numerous Committees of the Florida House of Representatives (Spring 2005).

*Z-Tel Communications, Inc. v. SBC Communications, Inc., Texarkana, Texas (2003).*

"A Response to Olbeter and Robinson's 'Breaking the Backbone'," released by MCI Worldcom (August 1999).

"An Economic Analysis of the FCC's Notice of Inquiry on Flat Rate Charges in the Long Distance Industry," filed in CC Docket No. 99-249 (September 1999).

"Further Thoughts on Payphone Compensation," filed in CC Docket No. 96-128 (November 1998).

"Effective Enforcement of Non-Discriminatory Performance by Incumbent Local Exchange Carriers," with John D. Jackson (filed with New York Public Service Commission, October 1999).

"A Review of the Texas Performance Plan," with John D. Jackson filed with the Federal Communications Commission (2000).

*Investigation into Pricing of Unbundled Network Elements*, Testimony filed before the State of Florida Public Service Commission, Docket No. 990649-TP (2000).

*Investigation into Pricing of Unbundled Network Elements*, Testimony filed before the State of Florida Public Service Commission, Docket No. 990649-TP (2000).

*Investigation into Pricing of Unbundled Network Elements*, Testimony filed before the State of New York Public Service Commission, Docket No. 98-C-1357 (2000).

*In the Matter of US West Communications, Inc.'s Compliance with Sec 271 of the Telecommunications Act of 1996*, Statement before the Arizona Corporation Commission, Docket No. T-00000B-97-0238 (2000).

*Performance Measurements for Telecommunications Interconnection, Unbundling and Resale*, Testimony before the Georgia Public Service Commission, Docket No. 7892-U (2000).

*Investigation and Generic Proceeding on Ameritech Indiana's rates for Interconnection, Service, Unbundled Elements, and Transport and Termination*, Declaration and Reply before the Indiana Public Service Commission, Cause No. 40611 (2000 2000).

*Inquiry by the Department of Telecommunications and Energy Pursuant to Section 271 of the Telecommunications Act of 1996*, Comments filed before the Massachusetts Department of Telecommunications and Energy, Docket No. DTE 99-271 (2000).

*Commission Review of Various Submissions of Ameritech Indiana to Show Compliance with Section 271(C) of the Telecommunications Act of 1996, Multiple filings before the Indiana Utility Regulatory Commission (2000).*

*In the Matter of US West Communications, Inc.'s, Compliance with §271 of the Telecommunications Act of 1996, Comments and studies filed before the Arizona Corporation Commission (2000).*

*In the Matter of Investigation into US West Communications, Inc.'s Compliance with Certain Wholesale Pricing Requirements for Unbundled Network Elements and Resale Discounts, Docket No.T-00000A-00-0194 (2001).*

*In the Matter of the Commission Investigation and Generic Proceeding on Ameritech Indiana's Rates for Interconnection, Service, Unbundled Elements, and Transport and Termination Under the Telecommunications Act of 1996 and Related Indiana Statutes, Cause No. 40611-S1 (2001).*

*In the Matter of the Petition of Indiana Bell Telephone Company, Incorporated d/b/a Ameritech Indiana Pursuant to I.C. 8-1-2-61 For a Three Phase Process For Commission Review of Various Submissions of Ameritech Indiana to Show Compliance with Section 271(c) of The Telecommunications Act of 1996, Cause No. 41657 (2001).*

*Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act To Provide In-Region, InterLATA Service in the State of New York, Federal Communications Commission, CC Docket No. 99-295 (1999).*

*Application by SBC Communications Inc., Southwestern Bell Telephone Company, And Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In-Region, InterLATA Services In Texas, Federal Communications Commission, CC Docket No. 00-65 (2000)*

*Joint Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Kansas and Oklahoma, Federal Communications Commission, CC Docket No. 00-217 (2000/2001).*

*Joint Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In-Region, InterLATA Services in Arkansas and Missouri, Federal Communications Commission, CC Docket No. 01-194 (2001).*

*Joint Application by BellSouth Corporation, BellSouth Telecommunications, Inc., And BellSouth Long Distance, Inc for Provision of In-Region, InterLATA Services In Georgia and Louisiana, Federal Communications Commission, CC Docket No. 02-35 (2002).*

*Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Federal Communications Commission, CC Docket No. 01-338 (2003).*

**BOOK REVIEWS, EDITORIALS, REPORTS, and POLICY PAPERS:**

*“Be Careful What You Ask For: A Comment on the OECD’s Mobile Price Metrics,” PHOENIX CENTER PERSPECTIVES No. 09-03 (September 16, 2009).*

*“The Broadband Adoption Index: Improving Measurements and Comparisons of Broadband Deployment and Adoption,” PHOENIX CENTER POLICY PAPER No. 36 (July 2009).*

*“ The Need for Better Analysis of High Capacity Services,” PHOENIX CENTER POLICY PAPER No. 35 (June 2009).*

*“Econometric Analysis of Broadband Subscriptions: A Note on Specification,” PHOENIX CENTER PERSPECTIVES No. 09-02 (May 12, 2009).*

*“Normalizing Broadband Connections,” PHOENIX CENTER PERSPECTIVES No. 09-01 (May 12, 2009).*

*“The Pricing of Pole Attachments: Implications and Recommendations,” PHOENIX CENTER POLICY PAPER No. 34 (December 2008).*

*“Do High Call Termination Rates Deter Broadband Deployment?,” PHOENIX CENTER POLICY BULLETIN No. 22 (October 2008).*

*“Broadband Expectations and the Convergence of Ranks,” PHOENIX CENTER PERSPECTIVES No. 08-03 (October 1, 2008).*

*“Consumers and Wireless Carterfone: An Economic Perspective,” PHOENIX CENTER POLICY BULLETIN No. 21 (September 2008).*

*“Valuing the AWS-3 Spectrum: A Response to Comments,” PHOENIX CENTER POLICY PERSPECTIVE No. 08-02 (July 2008).*

*“Calculating the Value of Unencumbered AWS-III Spectrum,” PHOENIX CENTER POLICY PERSPECTIVE No. 08-01 (June 2008).*

*“Using Auction Results to Forecast the Impact of Wireless Carterfone Regulation on Wireless Networks,” PHOENIX CENTER POLICY BULLETIN No. 20 (May 2008).*

"The Broadband Efficiency Index: What Really Drives Broadband Adoption Across the OECD?," PHOENIX CENTER POLICY PAPER No. 33 (May 2008).

"The Welfare Impacts of Broadband Network Management: Can Broadband Service Providers Be Trusted?," PHOENIX CENTER POLICY PAPER No. 32 (March 2008).

"A Valley of Death in the Innovation Sequence: An Economic Investigation," Phoenix Center Study for the United States Department of Commerce (2007).

"The Demographic and Economic Drivers of Broadband Adoption in the United States," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 31 (November 2007).

"An Economic Approach to Evaluating a National Wireless Regulatory Framework," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY BULLETIN No. 19 (October 2007).

"Quantifying the Cost of Substandard Patents: Some Preliminary Evidence," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 30 (September 2007).

"The Broadband Performance Index: A Policy-Relevant Method of Comparing Broadband Adoption Among Countries," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 29 (July 2007).

"Wireless Net Neutrality: From Carterfone to Cable Boxes," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY BULLETIN No. 17 (April 2007).

"University of Florida Study Shows Only Winners from Network Neutrality Regulation to be Content Providers, Consumers Lose." PHOENIX CENTER POLICY PERSPECTIVE No. 07-01 (March 2007).

"Network Neutrality and Foreclosing Market Exchange: A Transaction Cost Analysis," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 28 (March 2007).

"Tort Liability for Software Developers: A Law & Economics Perspective," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 27 (January 2007).

"An Investigation into the Influence of Retail Gas Prices on Oil Company Profits," PHOENIX CENTER POLICY PAPER No. 26 (August 2006).



"The Burden of Network Neutrality Mandates on Rural Broadband Deployment," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 25 (July 2006).

"The Efficiency Risk of Network Neutrality Rules," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY BULLETIN No. 16 (May 2006).

"Network Neutrality and Industry Structure," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 24 (April 2006).

"Unnecessary Regulations and the Value of Spectrum: An Economic Evaluation of Lease Term Limits for the Educational Broadband Service," with Thomas M. Koutsky, PHOENIX CENTER POLICY BULLETIN No. 15 (February 2006).

"A La Carte and 'Family Tiers' as a Response to a Market Defect in the Multichannel Video Programming Market," with Thomas M. Koutsky, PHOENIX CENTER POLICY BULLETIN No. 14 (February 2006).

"In Delay There Is No Plenty: The Consumer Welfare Cost of Franchise Reform Delay," with Thomas M. Koutsky, PHOENIX CENTER POLICY BULLETIN No. 13 (January 2006).

"Franchise Fee Revenues After Video Competition: The 'Competition Dividend' for Local Governments," with Thomas M. Koutsky, PHOENIX CENTER POLICY BULLETIN No. 12 (November 2005).

"Higher Prices Expected from the Cingular/AT&T Wireless Merger," PHOENIX CENTER POLICY BULLETIN No. 11 (26 May 2004).

"The Impact of Video Service Regulation on the Construction of Broadband Networks to Low-Income Households," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 23 (September 2005).

"The Consumer Welfare Cost of Cable "Build-out" Rules," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 22 (July 2005).

"Competition After Unbundling: Entry, Industry Structure and Convergence," with Thomas M. Koutsky and Lawrence J. Spiwak, PHOENIX CENTER POLICY PAPER No. 21 (July 2005).

"Quantity-Discount Contracts as a Barrier to Entry," with T. Randolph Beard and Lawrence J. Spiwak/ PHOENIX CENTER POLICY PAPER NO. 20 (November 2004).

"The Positive Effects of Unbundling on Broadband Deployment," with Lawrence W. Spiwak. PHOENIX CENTER POLICY PAPER NO. 19 (September 2004).

"Set It and Forget It? The Consequences of Market Power and Deregulation in Telecommunications Markets Services," with L. J. Spiwak. PHOENIX CENTER POLICY PAPER No. 18 (June 2003).

"What Determines Wholesale Prices for Network Elements in Telephony? An Econometric Evaluation," with T. Randolph Beard, PHOENIX CENTER POLICY PAPER NO. 16 (September 2002).

"Make or Buy? Unbundled Elements as Substitutes for Competitive Facilities in the Local Exchange Network," with Thomas R. Beard. PHOENIX CENTER POLICY PAPER NO. 14 (September 2002).

"Why Adco? Why Now? An Economic Exploration into the Future of Industry Structure in Local Telecommunications Markets," PHOENIX CENTER POLICY PAPER No. 12 (November, 2001).

"An Economic Analysis of the FCC's Notice of Inquiry on Flat Rate Charges in the Long Distance Industry," PHOENIX CENTER POLICY PAPER No. 11 (May, 2001).

"Changing Industry Structure: The Economics of Entry and Price Competition" with Jerry B. Duvall, PHOENIX CENTER POLICY PAPER No. 10 (April 2001) and *Telecommunications and Space Law, 2001*.

"Flow Through and Competition in the International Message Telephone Service Market," PHOENIX CENTER POLICY PAPER No. 7 (September, 2000).

"Higher Prices Expected from the Cingular/AT&T Wireless Merger," PHOENIX CENTER POLICY BULLETIN NO. 11 (26 May 2004): with Lawrence W. Spiwak.

"Fixed-Mobile "Intermodal" Competition in Telecommunications: Fact or Fiction?" PHOENIX CENTER POLICY BULLETIN NO. 10 (30 March 2004): with Lawrence W. Spiwak.

"Federalism in Telecommunications Regulation: Effectiveness and Accuracy of State Commission Implementation of TELRIC in Local Telecoms Markets," PHOENIX CENTER POLICY BULLETIN NO. 9 (9 March 2004): with Lawrence W. Spiwak.

"The \$10 Billion Benefit of Unbundling: Consumer Surplus Gains from Competitive Pricing Innovations," PHOENIX CENTER POLICY BULLETIN NO. 8 (27 January 2004): with Lawrence W. Spiwak and Thomas Koutsky.

"The Positive Effects of Competition on Employment in the Telecommunications Industry," PHOENIX CENTER POLICY BULLETIN NO. 7 (15 October 2003): with Lawrence W. Spiwak.

"UNE-P Drives Bell Investment - A Synthesis Model," PHOENIX CENTER POLICY BULLETIN NO. 6 (17 September 2003): with Lawrence W. Spiwak.

"Competition and Bell Company Investment in Telecommunications Plant: The Effects of UNE-P," PHOENIX CENTER POLICY BULLETIN NO. 5 (Originally released 9 July 2003 and updated 17 September 2003): with Lawrence W. Spiwak.

"The Truth About Telecommunications Investment after the Telecommunications Act of 1996," PHOENIX CENTER POLICY BULLETIN NO. 4 (24 June 2003) : with Lawrence W. Spiwak.

"Telecommunications Stocks and the FCC's Triennial Review," PHOENIX CENTER POLICY BULLETIN NO. 2 (11 March 2003).

"In Through the Back Door: Embedded Cost and the FLC." June 2002. ([www.aestudies.com](http://www.aestudies.com)).

"How Many Days in a Year? Creative Cost Modeling and the Cost to Competition." June 2002. ([www.aestudies.com](http://www.aestudies.com)).

"A Fox in the Hen House: An Evaluation of Bell Company Proposals to Eliminate Their Monopoly Positions in Local Telecommunications." June 2002. ([www.aestudies.com](http://www.aestudies.com)).

"Opportunities for Local Exchange Competition Are Greatly Exaggerated." *Electric Light & Power*, April 1998.

*Welfare Economics and Externalities in an Open Ended Universe: A Modern Austrian Perspective*, by Roy E. Cordato. *Southern Economic Journal* (April, 1994).

*Toward Competition in Local Telephony*, by William J. Baumol and Gregory Sidak. *Southern Economic Journal* (April, 1996).

"Competition Will Decrease Cable Rates: On Curbing Cable Costs," with Audrey B. Davidson. *Business First*, September 6, 1993.

"TKR Cable Not Living Up To Promises To Cut Rates," with Audrey B. Davidson. *The Louisville Cardinal*, September 2, 1993.

"The Cable Television Industry: An Annotated Bibliography" Published and Funded by the *Auburn Utilities Research Center*, Summer 1994.

Before the  
**UNITED STATES COPYRIGHT ROYALTY JUDGES**  
Washington, D.C.

In the Matter of:

Determination of Rates and Terms for  
Preexisting Subscription Services and  
Satellite Digital Audio Radio Services

Docket No. 2011-1  
CRB PSS/Satellite II

**TESTIMONY OF**

**JONATHAN BENDER**

**Chief Operating Officer, SoundExchange, Inc.**

**Public Version**

**Witness for SoundExchange, Inc.**

**Written Direct Testimony of Jonathan Bender**

**I. Background and Qualifications**

I am the Chief Operating Officer of SoundExchange, Inc. (“SoundExchange”). I have held this position since September 1, 2011. I have more than 20 years of music industry business and management expertise. Over the years, I have served in senior operational roles at Concord Music Group, Universal Music Group, and EMI Music. I was senior vice president, operations, IT and digital development at Concord Music Group, one of the fastest growing independent label groups in the world. In this role, I designed and managed a consolidated digital infrastructure to host and distribute the artist catalogs of the three combined companies: Concord Records, Fantasy Records and Telarc International. I also led the integration of all physical product operations and revamped all of the group’s online properties. Before joining CMG, I spent seven years with Universal Music Group, most recently as vice president, digital asset management and logistics. In this role, I served as team leader for building of the music industry’s first e-commerce distribution infrastructure, and converted production operations from physical assets to digital. I also spent nine years with EMI Music, one of the world’s largest music companies. As director of new technology based in London, I implemented the industry’s first worldwide transmission network for production assets, setting global standards for digital assets and metadata. I hold a bachelor’s degree from the University of North Carolina at Chapel Hill, where I was a Morehead Scholar, and an MBA from Harvard Business School.

My responsibilities as SoundExchange’s Chief Operating Officer include overseeing the processing and distribution of royalty payments for the performance of sound recordings through the various types of services eligible for statutory licensing, including the SDARS and PSS services at issue in this proceeding. I supervise SoundExchange staff who receive reports of use

from licensees, determine the amounts owed to copyright owners and performers, and process the distributions of royalties to those individuals and entities. The groups within SoundExchange that handle account services, distribution services, data management and claims all report to me. Additionally, I oversee SoundExchange's technical involvement with licensees and assist with coordination of its systems requirements, development, and testing.

## **II. Overview**

I am submitting this testimony to provide background information about SoundExchange and its operations; to describe SoundExchange's processing and distribution of royalties; to explain ways in which the current SDARS definition of gross revenues has proven difficult to administer and why SoundExchange's proposed revised definition would be preferable; to explain why SoundExchange should be the sole Collective for collecting and distributing royalties under the Section 112 and 114 licenses; and to support SoundExchange's proposed minimum fees and terms.

## **III. SoundExchange's Processing and Distribution of Royalties**

### **A. Overview of SoundExchange**

SoundExchange is a 501(c)(6) nonprofit performance rights organization established to ensure the prompt, fair and efficient collection and distribution of royalties payable to performers and sound recording copyright owners for the performance of sound recordings over, among other things, the Internet, wireless networks, cable and satellite television networks, and satellite radio services via digital audio transmissions. SoundExchange is governed by an 18-member Board of Directors that is made up of equal numbers of artist representatives and sound recording copyright owner representatives. Copyright owners are represented by board members associated with the major record companies (four), independent record companies (two), the

Recording Industry Association of America (two), and the American Association of Independent Music (one). Artists are represented by one representative each from the American Federation of Musicians (“AFM”) and the American Federation of Television and Radio Artists (“AFTRA”). There are also seven at-large artist seats, which are currently held by artists’ lawyers and managers, as well as a recording artist.

In the previous SDARS proceeding, Docket No. 2006-1 CRB DSTRA, the Judges designated SoundExchange to “serve as the Collective for the 2007-2012 license period” for the collection and distribution of royalties paid by the SDARS under the Section 112 and 114 licenses. 73 Federal Register 4,080, 4,099 (Jan. 24, 2008). SoundExchange is also the Collective for the collection and distribution of PSS royalties for the time period 2008-2012. *See* 37 C.F.R. § 382.3(a). In addition, the Judges have designated SoundExchange as the Collective for webcasting royalties under the Section 112 and 114 licenses for the 2011-2015 license period.

Since its founding, SoundExchange has, on behalf of artists and record labels, sought the establishment of royalties and regulations that enable the prompt, fair and efficient distribution of royalties to all those artists and copyright owners entitled to such royalties. In addition to participating in rate-setting proceedings, SoundExchange has represented artists and record labels with respect to other issues, such as notice and recordkeeping. SoundExchange also undertakes a number of measures to protect the interests of artists and copyright owners under the statutory licenses, including by conducting audits of licensees, seeking and obtaining compliance by noncompliant licensees, and engaging in other enforcement and compliance measures.

SoundExchange frequently refers to those record labels and artists who have specifically authorized us to collect royalties on their behalf as “members.” We have approximately 12,700 rights owner members (including both record labels and artists who own the copyrights in their own recordings) and 30,250 artist members. We also pay statutory royalties to non-members – copyright owners and artists alike – as if they were also members. In total, we maintain accounts for more than 20,100 rights owners and more than 45,000 artists, including members and non-members.

SoundExchange strives to minimize the administrative costs associated with royalty collection and distribution. SoundExchange has 69 full-time staff members. In 2010, our administrative rate was 6.7%. For comparison purposes, the American Society of Composers, Authors and Publishers (“ASCAP”) reported operating expenses of 14.3% for 2010 ([http://www.ascap.com/about/annualReport/annual\\_2010.pdf](http://www.ascap.com/about/annualReport/annual_2010.pdf)).

**B. SDARS and PSS Royalties**

SoundExchange has collected and distributed hundreds of millions of dollars in royalties paid by the SDARS and PSS for their performances of sound recordings under the statutory licenses. For its SDARS service, Sirius XM paid [REDACTED] in royalties to SoundExchange in 2009; [REDACTED] in 2010; and [REDACTED] for the first nine months of 2011. The PSS pay royalties that are a small fraction of the SDARS royalties.

The SDARS pay SoundExchange on a percentage of revenue basis. The SDARS pay SoundExchange the following percentages of their “Gross Revenues,” as that term is defined in the regulations: 6.0% in 2007 and 2008; 6.5% in 2009; 7% in 2010; 7.5% in 2011; and 8.0% in 2012. However, the SDARS royalty base established by the definition of “Gross Revenues” in 37 C.F.R. § 382.12 draws distinctions among various categories of Sirius XM revenue. That



definition includes only certain subscription and advertising revenue, and then excludes some revenue such as certain equipment revenue, royalties paid to Sirius XM for intellectual property rights, money received by Sirius XM from the sale of phonorecords, revenues recognized by Sirius XM for the provision of data services offered for a separate charge, channels offered for a separate charge that use only incidental performances of sound recordings, services provided outside the United States, and services for which the performance of sound recordings is separately licensed, among other revenue.

The result of this complicated definition of gross revenues has been that Sirius XM is paying SoundExchange royalties calculated off a base that is well less than Sirius XM's total revenues – and even less than its total subscription revenues. According to revenue data from Sirius XM's publicly available SEC filings, its total "subscriber revenues" were \$2,287,503,000 in 2009; \$2,414,174,000 in 2010; and \$1,922,917,000 for the first nine months of 2011. By comparison, the revenue that Sirius XM reported to SoundExchange for those same periods of time was as follows [REDACTED] in 2009; [REDACTED] in 2010; and [REDACTED] for the first nine months of 2011. Thus, the revenue base defined by "Gross Revenues" amounted to approximately [REDACTED] of the subscriber revenues that Sirius XM reported in 2009; [REDACTED] in 2010; and [REDACTED] for the first nine months of 2011. Notably, the subscriber revenue that Sirius XM reports in its public filings does not encompass hundreds of millions of dollars in U.S. Music Royalty Fees and other revenue derived from Sirius XM's SDARS subscribers (such as payments earmarked for the receivers used to listen to music). When calculated as a percentage of the *total revenues* (as opposed to a percentage of subscriber revenues as defined by Sirius XM in its public filings) listed in Sirius XM's SEC filings, Sirius XM reported to

SoundExchange only [REDACTED] of its total revenues in 2009; [REDACTED] in 2010; and [REDACTED] for the first nine months of 2011.

In the previous SDARS proceeding, Docket No. 2006-1 CRB DSTRA, my understanding is that the Judges defined the upper bound of the zone of reasonable rates by using an “adjusted benchmark of \$1.40 per subscriber per month [that] is the equivalent of 13% on a percentage of subscriber revenue basis.” 73 Fed. Reg. at 4,093. While the Judges did not set a per-subscriber rate, I understand that they did assume this relationship between a per-subscriber payment and percentage of revenues. Accordingly, I have analyzed how closely Sirius XM’s actual royalty payments have come to this expected relationship.

In the chart below, I have adjusted the \$1.40 per subscriber to the relevant royalty rates (e.g., because 13% correlates to \$1.40 per subscriber, then 6.5% correlates to \$0.70 per subscriber) and compared that number to the per subscriber royalties actually paid by Sirius XM. I calculated the per subscriber royalty by dividing the total actual royalties paid by Sirius XM by the daily weighted average subscribers reported by Sirius XM in its public filings for the same time period and converted that number into a monthly figure.<sup>1</sup> These numbers show that Sirius XM has paid well less than was contemplated by the *SDARS I* decision (roughly [REDACTED] less each year), in large part because Sirius XM has only reported to SoundExchange less than 100% of its subscriber revenues, as noted above.

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<sup>1</sup> This methodology slightly underestimates the actual royalties paid per subscriber because the publicly available daily weighted average subscriber figures include some Internet-only and some non-music subscribers for whom Sirius XM does not pay royalties under the SDARS regulations. I do not currently have access to the number of those subscribers in order to adjust my calculations.

	Statutory Rate Set by Judges	Equivalent Assumed Per Subscriber Rate	Actual Royalties Paid per Weighted Average Subscriber	Actual/Expected
2011 (through Q3)	7.5%	\$0.808	[REDACTED]	[REDACTED]
2010	7.0%	\$0.754	[REDACTED]	[REDACTED]
2009	6.5%	\$0.700	[REDACTED]	[REDACTED]
2008	6.0%	\$0.646	[REDACTED]	[REDACTED]
2007	6.0%	\$0.646	[REDACTED]	[REDACTED]

To relate the royalty base more nearly to the value of the sound recording rights involved, and to address uncertainty and administrative difficulties presented by the current definition of the royalty base, SoundExchange is proposing to revise the definition of “Gross Revenues.” I address this subject in detail in Part IV below.

### C. Royalty Collection and Distribution

SoundExchange’s core mission is to collect and distribute statutory royalties as efficiently and accurately as possible. SoundExchange has developed sophisticated systems, business processes and extensive databases uniquely suited to the challenging task of distributing statutory royalties. For managing royalty collection and distribution, SoundExchange employs the following operational procedures.

Receipt of Payment. SoundExchange’s Royalty Administration and Distribution Services Departments receive from statutory licensees royalty payments and, ideally, two reports: (1) statements of account that reflect the licensee’s calculation of the payments for the reporting period; and (2) reports of use that, for SDARS and PSS, log plays of sound recordings. When SoundExchange receives payment from a licensee, that payment is logged into SoundExchange’s licensee database. If the licensee operates services in multiple rate categories, the royalty payments are allocated among the applicable rate categories based on the statements of account.

Loading of Reports of Use. Reports of use are associated with a service's payments and statements of account for a particular period and loaded into SoundExchange's system. Details of the required reporting vary among different types of services, but broadly speaking, the reports are supposed to provide information about matters such as the sound recording title, album, artist, marketing label, International Standard Recording Code and other information, as well as information about the number of plays. In some instances, services (including the PSS and SDARS) fail to accurately report identifying data for sound recordings by, for example, specifying that the artist is "Various," a composer such as "Beethoven" or "Mozart," or the disc jockey who played the sound recording, or simply not providing required information. Because the same songs have frequently been recorded by multiple artists, artist name is a critical piece of information for matching reported use to known sound recordings. In each of these instances, it is not possible to rely on the reported artist to do that. When we receive missing or inaccurate data, my staff has to research the partially identified sound recording in order to identify accurately the sound recording copyright owners and performers entitled to royalties.

Matching. SoundExchange's systems seek to match the recordings reported in licensee reports of use with information in SoundExchange's database concerning known recordings and their copyright owners and performers. Our complex log loading algorithm attempts to match identical and similar data elements and combinations of data elements from the incoming log against performance information previously received from the services or otherwise contained in SoundExchange's database. If there is a match for a particular sound recording, then the system identifies the corresponding copyright owner and performer information. However, a reported recording might not match a known recording if, for example, the service has performed a recording by an unsigned band, or a very new, old, foreign or other obscure recording that has

not previously been reported to SoundExchange, or if the service has provided incomplete or incorrect identifying information.

Research. SoundExchange has built its database of sound recordings from scratch, based in part on information reported to it by the services. To the extent a reported recording does not sufficiently match a known recording, SoundExchange personnel will research the recording in an effort to determine whether it should be added to SoundExchange's database or whether it is in the database under different identifying information. This research requires a significant amount of staff time. Such research is often required for new releases, works reported for the first time, works from small labels, compilation albums and foreign repertoire. In the case of compilation albums, for example, finding copyright ownership information is particularly time-consuming because, although the album is issued by one label, each of the sound recordings on it is often owned by a different label.

SoundExchange conducts extensive data quality assurance work to ensure the correct association of copyright owners and performers, on the one hand, and particular performances, on the other. When we receive information that is inaccurate or in conflict with other information, we conduct research to determine the copyright owner and performers for the sound recording, and we also have a process for identifying and resolving conflicts that arise between different payees.

Account Assignment. SoundExchange then assigns reported sound recording performances to accounts belonging to copyright owners and performers. Performances for which a copyright owner or artist account is not identifiable (e.g., because the recording reported has not yet been matched to a recording known to SoundExchange) are assigned to a suspense account for later review and research. This is often the result of poor quality data provided by

licensees, or due to artists that have not registered with SoundExchange. Performances assigned to suspense accounts are processed through the steps that follow as soon as identification is made, with the associated royalties being released in the next scheduled distribution.

Royalty Allocation. Once account assignment has occurred, a service's royalty payments for a given distribution period are allocated to sound recordings used by that service during that period and to SoundExchange's costs deductible under Section 114(g)(3) (sometimes referred to as SoundExchange's "administrative fee"). SoundExchange distributes SDARS and PSS royalties to performers and copyright owners based on the reporting that the services provide to SoundExchange. If a service reports to SoundExchange that it played a recording under the statutory license, SoundExchange does not second-guess the service's determination that it in fact performed the recording in reliance on the statutory license.

Before distribution of allocated funds, SoundExchange takes several quality assurance steps to ensure accounts are payable, address and tax identification information is complete, and performances in conflict and copyright owner conflicts are resolved (to the extent practicable).

Adjustment. Once allocations are completed, it is sometimes necessary to adjust particular accounts to rectify reporting and other errors that occurred in prior distributions. For example, if Copyright Owner A was incorrectly reported as the copyright owner of Recording X and received royalties for Recording X, but the actual owner of that recording was Copyright Owner B, then SoundExchange would need to credit Copyright Owner B in a future distribution and debit Copyright Owner A's account for the improper distribution. Adjustments typically take the form of an additional payment or a reduced payment to an existing account in the next scheduled distribution. For copyright owners and artists who are newly identified and for whom royalties have been accruing, a new account is created and royalties attributed to the suspense

account are transferred to the new account. Adjustments are also made from suspense accounts to copyright owner and artist accounts based on registrations received during the period between distributions.

Distribution. This process begins with consolidating allocations across licensees' reports of use within a license category according to earning entity,<sup>2</sup> which are then assigned to copyright owners, artists, or certain other payees (such as a producer who an artist directs SoundExchange to pay) based on the payment instructions for each. Next, the system generates a payment file, which we transmit to our banking partner. SoundExchange generally provides each royalty-earning entity with a statement reflecting the performances – and the licenses under which the sound recordings were performed – for which the royalty payment is made. When there is a payable balance in a payee's account above the distribution threshold, a check is mailed or funds are electronically transferred.

SoundExchange's database containing payee information is derived from account information received from record labels and artists, and includes such payees as the copyright owners and artists themselves, management companies, production companies, estates and heirs. We must, however, verify address and other information and secure appropriate tax forms directly from each artist and label. If an earning entity fails to provide SoundExchange with tax information, then we can still distribute royalties but must withhold a portion of the royalties pursuant to applicable Internal Revenue Service guidelines.

SoundExchange presently conducts distributions four times a year for statutorily licensed uses and, at times, for non-statutorily licensed performances for which SoundExchange has collected royalties, typically from non-U.S. performing rights organizations that have money for

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<sup>2</sup> An "earning entity" is the person or entity who has earned the royalties from a tax standpoint and is not necessarily the person who receives royalties.

U.S. performers or copyright owners. The threshold for distributing royalties to a payee is \$10. Distributing smaller amounts would incur significant additional transaction costs. Every payee with a balance greater than \$10 receives at least an annual distribution. Payments for which SoundExchange lacks sufficient information to distribute to the appropriate copyright owner or performer are allocated to separate accounts in accordance with 37 C.F.R. § 382.7 (with respect to PSS payments) and § 382.17 (with respect to SDARS payments).

#### **IV. SDARS Definition of “Gross Revenues”**

SoundExchange proposes changes to the definition of “Gross Revenues,” which currently appears in the 37 C.F.R. § 382.11, to achieve two goals: (1) relating the royalties paid by Sirius XM more closely to the value of the rights licensed, and (2) making the definition easier to administer and less susceptible to interpretation, thus reducing transaction costs.

##### **A. The Current Definition**

With respect to the first goal, as described above, the current definition has resulted in payments to SoundExchange significantly less than appears to have been assumed in the *SDARS I* decision. With respect to the second goal, the current definition of “Gross Revenues” draws complicated distinctions among various categories of Sirius XM revenue that are included in or excluded from the royalty base. In practice, these distinctions have proven to be imprecise, uncertain and open to interpretation. This makes the rate structure difficult to administer, because it requires Sirius XM to make judgments about how to classify its revenues. In addition, the current definition makes it impossible for SoundExchange to determine, based on the statements of account and reports of use that Sirius XM provides, to what extent Sirius XM’s judgments about application of each of the various limitations and exclusions accounts for the discrepancy between Sirius XM’s publicly-reported total revenues and the revenues reported to



SoundExchange. While SoundExchange can conduct audits of Sirius XM to try to learn that information (in fact, an audit is currently ongoing), if SoundExchange and Sirius XM disagree about whether an inclusion or exclusion (or the amount of an inclusion or exclusion) is appropriate, SoundExchange and/or individual beneficiaries would presumably need to resort to expensive litigation to enforce their rights.

The current definition identifies two categories of revenue for inclusion in the royalty base, and nine separate categories of exclusion. The metes and bounds of each of these eleven categories are specified by regulatory language that, in most cases, is potentially subject to interpretation and susceptible to manipulation, which can lead to disputes. All together, this complicated definition greatly obfuscates Sirius XM's reporting to SoundExchange. In addition, these categories create the possibility that Sirius XM may try to label fees in ways that it may assert reduce its payments to SoundExchange while Sirius XM nonetheless realizes the revenue, and does so based at least in part on demand for the music available through its service.

For example, the current definition prescribes that the royalty base is to include “[s]ubscription revenue recognized by Licensee directly from residential U.S. subscribers for Licensee’s SDARS.” That might seem straightforward, but trying to map that concept onto Sirius XM’s publicly-reported financial statements illustrates the potential for uncertainty and disputes. Sirius XM’s Form 10-Q for the period ending September 30, 2011 reports a category of “[s]ubscriber revenue,” which it says “consists of subscription fees, revenue derived from agreements with certain daily rental fleet operators, non-refundable activation and other fees.” 10-Q at 10. Similarly, the 10-Q refers elsewhere to “activation and subscription-related fees,” which Sirius seems to view as different from “subscription fees” for purposes of its public filings. 10-Q at 25. The 10-Q notes that some of these subscriber revenues are “received from

OEMs [automakers] for subscriptions included in the sale or lease price of vehicles.” 10-Q at 10. But does Sirius XM treat activation fees and other “subscription-related fees” as “subscription revenue”? Does it view subscriptions paid for by automakers as revenues “directly from residential U.S. subscribers”? Sirius XM needs to go through this kind of classification exercise and make judgments about these kinds of questions every time it creates a new offering or establishes or renames a fee, and in the ordinary course of business SoundExchange may need to resort to an expensive audit that SoundExchange to get visibility into what Sirius has done.

As to exclusions from the royalty base, some are straightforward, such as the first part of the fourth exclusion – “sales and use taxes” – which refers to a pass-through item, not revenue. Similarly, since subscription revenue is included only when it comes from “U.S. subscribers,” the eighth exclusion – for provision of “[c]hannels, programming, products and/or other services provided outside of the United States” – seems operative only to exclude foreign ad revenue, which for some reason is to be included in the top line of the calculation before being excluded here.

Most of the exclusions, however, are more problematic. A number of them create possibilities for Sirius XM to undervalue the sound recording performance rights licensed to it by structuring payment streams to fall into those categories. In the ordinary course, the second exclusion – for “[r]oyalties paid to Licensee for intellectual property rights” – would not seem operative, because it is hard to see how license revenue could be considered subscription or advertising revenue from operation of an SDARS. However, the fact that the exclusion exists creates a possibility of Sirius XM’s trying to structure subscriber or advertiser payments as royalties. The first exclusion (sales and more licensing revenue, for equipment, “technology” and “bandwidth,” as well as “shipping and handling fees”), the balance of the fourth (more

“shipping and handling” and a variety of other obscure fees), and the sixth (data services) may permit Sirius XM to make arbitrary allocations of revenue it derives from offering bundled offerings, and practically invite Sirius XM to adopt a fee structure whereby subscribers pay more of what they are willing to spend on satellite radio in fees denominated in those ways and less in fees denominated in ways that do not qualify for an exclusion.

The fifth exclusion – bad debt expense – uniquely among these exclusions lets Sirius XM subtract one kind of cost it incurs from the revenues included in the royalty base. This subtraction seems flatly inconsistent with a revenue-based royalty related to the value of the sound recording performance rights used, because it allows Sirius XM to benefit by extending credit to subscribers who receive the full value of sound recording transmissions, and leaves copyright owners and performers to bear the risk of going uncompensated if Sirius XM makes bad lending decisions.

Finally, the seventh and ninth exclusions – for certain “[c]hannels, programming, products and/or services” that make only incidental use of sound recordings or are exempt or separately licensed – have been interpreted by Sirius XM to permit significant exclusions from the royalty base that must involve judgments by Sirius XM about what to exclude, but as to which SoundExchange has no visibility through statements of account and reports of use.

SoundExchange faces continuing administrative difficulties in trying to figure out these kinds of details for the current rate period. But SoundExchange’s experience with the current regulations demonstrates the need for a clearer gross revenues definition that is less open to interpretation. Such a definition would be easier to administer and eliminate the potential for manipulation. SoundExchange has included such a definition in its rate proposal.

**B. SoundExchange’s Proposed Definition**

The definition set forth in SoundExchange’s rate proposal is designed to reduce such complications and relate the royalty to the value of the sound recording performance rights by approximating Sirius XM’s total revenues from the operation of an SDARS in the U.S., except for a smaller set of more tightly-defined exclusions. Important features of SoundExchange’s proposed definition include the following:

- In clause (1)(i), the concept of subscription revenue has been refined to minimize the potential for disputes as to whether it encompasses the full range of subscriber revenues reported in Sirius XM’s public financial statements.
- In clause (1)(ii), the advertising revenues to be used in the calculation are U.S. revenues only.
- In clause (1)(iii), certain U.S. equipment revenues, previously excluded from the royalty base, are proposed to be included, because they are just another way Sirius XM makes money from providing a service that consists in large part of music.
- In clause (2), we propose largely retaining the provision concerning revenues to which the licensee is entitled but which are paid to an affiliate. However, we propose deleting the reference to “wholly-owned” subsidiaries, because there is no reason that revenue diverted to subsidiaries that are less than wholly-owned should not be treated similarly.
- In clause (3)(i), the exclusion for royalties for intellectual property rights is retained, but only where the royalties are paid by persons other than subscribers, advertisers and sponsors. As such, we believe it is merely clarifying.

- In clause (3)(ii), the exclusion for record sales is retained, except that we propose clarifying that this exclusion is for the service's sales revenues (not, for example, advertising revenue connected to the sale of downloads).
- In clause (3)(iii), the clarification that sales and use taxes are not revenue has been retained, but the references to other arbitrary fees have been omitted, because the label that Sirius XM chooses to apply to a subscriber payment for its SDARS service should not determine whether it is included in the royalty base.
- In clause (3)(iv)(A), an exclusion for data services has been retained, but only when such services are provided on a standalone basis, so that the value attributed to use of sound recordings in an SDARS will not fluctuate based on Sirius's accounting allocations and decisions about the relative pricing of services frequently bought together.
- In clause (3)(iv)(B), the exclusion for foreign operations has been retained, but is understood to be merely clarifying based on the limitations to U.S. operations in the categories of included revenue.
- In clause (3)(iv)(C), part of the exclusion for separately-licensed services has been retained, but only when such services are provided on a standalone basis, so that the value attributed to use of sound recordings in an SDARS will not fluctuate based on Sirius's accounting allocations and decisions about the relative pricing of services frequently bought together.

SoundExchange's experience with the current definition of gross revenues indicates that this more precise definition of gross revenues would more closely reflect the value of the sound recording rights used by Sirius XM, as well as produce much less uncertainty, be much less

susceptible to manipulation, and so be easier to administer, give rise to fewer disputes, and reduce transaction costs.

**V. SoundExchange Should Be Designated the Sole Collective to Collect and Distribute SDARS and PSS Royalties.**

In *Webcasting II*, the Judges found “that selection of a single Collective represents the most economically and administratively efficient system for collecting royalties under the blanket license framework created by the statutory licenses.” 72 Fed. Reg. at 24105 (May 1, 2007). In *SDARS I*, the Judges cited that finding, and noted that no party had submitted evidence that compelled a different conclusion or had requested the designation of multiple collectives. Indeed, SoundExchange was the only party requesting to be designated as the Collective. Based on SoundExchange’s “track record” of serving as the Collective coupled with the absence of opposition or evidence suggesting that SoundExchange not serve in that capacity, the Judges in *SDARS I* designated SoundExchange as the sole Collective for the 2007-2012 rate period. More recently, the Judges reached the same conclusion in the *Webcasting III* proceeding with respect to SoundExchange’s serving as the Collective for webcasting royalties.

I request that the Judges likewise designate SoundExchange as the sole Collective to collect and distribute statutory SDARS and PSS royalties for the 2013-2017 statutory period. SoundExchange has considerable experience and expertise in administering the statutory licenses. SoundExchange has processed billions of sound recording performances. SoundExchange has continued to increase the size of its membership and the number of record label and artist accounts it maintains. For example, whereas at the time the *Webcasting II* direct testimony was submitted, SoundExchange had approximately 3,000 record label members and 12,000 artist members, 72 Fed. Reg. at 24104, today SoundExchange has approximately 12,700 rights owner members and 30,250 artist members. And while SoundExchange had over 700,000

sound recordings in its database when the written direct testimony was submitted in *Webcasting II*, today SoundExchange has more than 4 million entries in its database of unique combinations of artist names and track titles.

I do not know whether any participant in this proceeding will propose that there be more than one collection and distribution agent, but I do know that having more than one such agent would cause significant problems. Such a system is anathema to the concept of an efficient statutory licensing system. Designating a second Collective would create greater overall costs because copyright owners and performers would have to pay for duplicative systems for license administration.

#### **VI. Minimum Fees**

I understand that the Judges are required to set a minimum fee under the Section 112 statutory license. The PSS have paid a \$100,000 annual minimum fee that is creditable toward all their royalty payments. This seems sufficiently established as a feature of the statutory license that SoundExchange does not propose any change in this arrangement at this time.

There has not previously been a minimum fee for the SDARS despite the statutory requirement. To comply with the statutory requirement that the Judges set a minimum fee under the Section 112 license, we believe that one should be added at this time. We propose \$100,000 because that is what the PSS have paid, creditable toward ephemerals royalty payments only. Given that Sirius XM pays considerably more than this amount in annual royalties, the ephemeral royalty component of Sirius XM's royalty payments will far exceed \$100,000 each year.

## VII. License Terms and Other Regulations

### A. SDARS Terms

For the SDARS, SoundExchange generally proposes continuing the same terms in this proceeding as the Judges adopted in the *SDARS I* proceeding, Docket No. 2006-1, subject to certain technical and conforming changes. Those terms are also in large part substantially the same as the terms currently applicable to webcasting services, as adopted in the *Webcasting III* proceeding, Docket No. 2009-1. I believe there is value in having consistency of terms across licenses and in allowing time to fully assess the effectiveness of those terms based on experience working under those terms. Such consistency aids SoundExchange's administration of the licenses and makes licensees' compliance with the terms more efficient.

In addition to the change to the definition of gross revenues discussed above, I highlight two proposed changes to the SDARS regulations:

- We propose deleting the concept of a "residential" SDARS subscriber because it is simply a confusing artifact of that term being used in the PSS regulations. The SDARS service is not primarily residential (in the sense of being delivered to homes). In the SDARS regulations, a "residential" subscriber is defined as simply a subscriber, meaning that the word "residential" in the definition does not add any value to the definition but only creates the possibility for confusion.
- In section 382.13(e)(3), we propose deleting the requirement that the signature on a statement of account be "handwritten," because we believe it would be efficient (and hence reduce transaction costs) for both licensees and SoundExchange if SoundExchange were to automate the process of ingesting statements of account and reports of use, and this requirement can only interfere with trying to obtain such efficiencies. In contrast to



the *Webcasting III* proceeding, in which the Judges declined to adopt this request, dropping this requirement in this proceeding would create no issues of inconsistency among services of the same type.

**B. PSS Terms**

The current regulations establishing the terms for the PSS are different from the terms applicable to the SDARS and to webcasting services. The divergence between the PSS terms on the one hand, and the SDARS/webcasting terms on the other can be inconvenient, and hence produce transaction costs, for those of us that have to work with the regulations every day. As discussed above, it is impractical and inefficient to have different terms for different licenses. Accordingly, SoundExchange is proposing to conform the PSS terms to the terms for the other statutory licenses. In the following paragraphs I highlight some of the differences between the two sets of terms, and how SoundExchange proposes to conform them.

- In proposed Section 382.2, we propose collecting applicable definitions in one place for the convenience of users of the regulations. The definitions of gross revenues and licensee are relocated from Sections 382.1(d) and 382.2(e) in the current regulations, but we do not propose to change them substantively at this time. The other definitions would be new to the PSS but are used in the SDARS and webcasting regulations.
- In proposed Section 382.3(c), we have proposed allocating a combined Section 112(e)/114 royalty between Sections 112(e) and 114 in a manner equivalent to the SDARS and webcasting regulations.
- In proposed Section 382.3(d), we propose applying the late fee to a late statement of account, as in the case of SDARS and webcasting. As the Judges have found before,

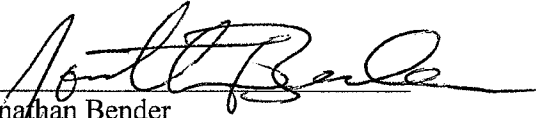
SoundExchange's need for both a payment and statement of account to be able to distribute the payment warrants applying the late fee to both.

- In proposed Section 382.4(c), we have relocated the statement of account requirement buried in the confidentiality provision of current Section 382.4(b), but adapted it to include the enumerated data elements from the SDARS regulations.
- Where current Section 382.3(c)(2) has an escheat provision that is in addition to, and a little different from, current Section 382.7, we have included in proposed Section 382.4(d)(2) a reference to the primary escheat clause, which we propose to renumber as Section 382.8.
- In proposed Section 382.5, for the sake of consistency, we propose conforming the confidentiality regulations to the SDARS regulations.
- In proposed Sections 382.6 and 382.7, we propose conforming the very different PSS audit provisions, to avoid having to maintain separate audit processes (potentially applicable to the same audited party). However, current Sections 382.5(f) and 382.6(f) provide for audit fee shifting in the case of a 5% underpayment, and the same considerations do not warrant doubling that threshold to the levels in the SDARS and webcasting regulations. The 10% threshold is high. I would much rather administer two separate fee-shifting calculations than provide incentives for services to underpay by such a large margin.

Making these changes and the other more technical ones set forth in the marked copy of the regulations included with our rate proposal would materially simplify administration of the PSS license.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: November 28, 2011

  
Jonathan Bender

**Before the  
UNITED STATES COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

In the Matter of:

Determination of Rates and Terms for  
Preexisting Subscription Services and  
Satellite Digital Audio Radio Services

Docket No. 2011-1  
CRB PSS/Satellite II

**TESTIMONY OF**

**STEPHEN BRYAN**

**Executive Vice President of Digital Strategy and Business Development,  
Recorded Music, Warner Music Group**

**Public Version**

**Witness for SoundExchange, Inc.**

### **Background and Qualifications**

I am the Executive Vice President of Digital Strategy and Business Development, Recorded Music at Warner Music Group. In that role, I have direct responsibility for creating and implementing WMG's digital strategy, developing new business models and digital products, negotiating and executing key deals, and building global relationships with strategic partners, including digital retailers, wireless carriers, handset manufacturers, ISPs and social media networks. I joined WMG in 1997 as Manager for Strategic Planning and Business Development, working to identify potential new business initiatives and strategic alliances for the company.

I hold a bachelors degree from Vanderbilt University and an MBA degree from the Wharton School of Business at the University of Pennsylvania.

### **About Warner Music Group**

Warner Music Group Corp. (WMG) includes a collection of some of the best-known record labels in the music industry including Atlantic, Bad Boy, Elektra, Lava, Maverick, Nonesuch, Reprise, Rhino, Sire, Warner Bros. and Word. These labels feature a comprehensive roster of recording artists and a massive catalog of some of the world's most popular sound recordings. WMG operates the Alternative Distribution Alliance (ADA), which has been the leading distributor for independent record labels in each of the past five years. Warner Music International, a leading company in national and international repertoire, operates through numerous international affiliates and licensees in more than 50 countries. Warner Music Group also includes Warner/Chappell Music, one of the world's leading music publishers, with a catalog of more than one million musical compositions worldwide.

Until recently, WMG was publicly traded. But following the acquisition of WMG in July of 2011 by Access Industries, Inc., the company is now privately held.

### **Overview**

My testimony seeks to explain WMG's approach to entering into marketplace agreements for the digital distribution of our sound recordings through various channels. The main purpose of this testimony is to provide the Copyright Royalty Judges with information about how a sound recording rightsholder, such as WMG, would approach negotiations with a third party seeking a license for a satellite radio service, such as SiriusXM, outside of the context of the statutory license. I previously submitted testimony on a similar topic in the *Webcasting II* proceeding, in which the Judges set the rate for noninteractive webcasting services.

### **The Digital Distribution of Music**

WMG has long been an industry leader in the digital marketplace. In fact, since the beginnings of WMG – when the Warner Bros. movie studio first entered the music business in 1929 – the company has strived to find better ways of connecting artists and fans by embracing the latest delivery technologies and the most innovative product, sales and distribution strategies. Today, WMG is a leading force in the recorded music industry's transition to digital, managing a variety of music-based content that is marketed, promoted and distributed over a wide array of online and mobile platforms.

Since I last testified before the Copyright Royalty Judges about the marketplace for distribution of music, record companies, including WMG, have expanded their efforts to embrace and advance digital distribution. As I previously testified, WMG believes that digital distribution is the key to new growth in the record industry in the coming years and WMG continues to work to transform the recorded music business from top to bottom to incorporate

digital distribution as a central part of our business strategy. Sales of CDs and other physical media have continued to decline in recent years, but revenues for digital distribution – from sales of digital downloads and albums, sales of other digital products (such as ringtones), and subscription streaming services – have increased significantly. In fact, in the second quarter of 2011, WMG reported that our digital revenue had grown to nearly 40% of our worldwide Recorded Music business, and in 2008, Atlantic Records was recognized as the first major label to achieve digital revenue in excess of 50% of its U.S. physical and digital sales revenue. We expect these numbers to continue to grow significantly over time.

Over the past decade, technological developments have enabled music lovers to enjoy music in many new ways and have provided more immediate access to music than ever before. The rise of digital services has fundamentally altered WMG’s view of how to generate revenues from distributing its sound recordings. Whereas in the past WMG was primarily concerned about the sales of physical products, such as CDs, we now view each potential distribution model in terms of its impact on all other distribution channels and seek to ensure that all of our digital distribution partners help us as a company to maximize our digital revenues. The wide range of digital services appeal to different consumers, but all have the potential to substitute for each other and WMG is vigilant in negotiating agreements in the marketplace that prevent damaging potentially more lucrative distribution channels. Simply put, some consumers prefer to “lean back” and have music provided to them, others are attracted to a more interactive “lean forward” experience where they request specific songs, artists and albums, and some consumers prefer services that combine both approaches. Regardless of the consumer experience offered by a given service, each business that WMG licenses its music to needs to provide a distinct revenue stream that either contributes meaningfully to the company’s bottom line, or helps to develop a

business model that will over time. Our experience over the past decade is that the business of digital distribution of music has grown dramatically and will continue to grow through the coming years. WMG executes deals only at prices that are designed to generate sustainable revenues over the long term.

### **Marketplace Agreements for Digital Distribution**

WMG has entered into a variety of agreements with various digital distribution services. These agreements demonstrate what willing buyers and willing sellers agree to in the marketplace when they are able to negotiate without a statutory license. Many of WMG's agreements are with sophisticated parties operating multiple different music services. These agreements show the significantly higher rates and the significantly more valuable terms that WMG receives in virtually every context outside of the statutory license when we are able to negotiate for use of our content in a free market. A summary of relevant aspects of WMG's licensing strategy and of some recent WMG agreements in several distribution channels is provided below.

#### *A. WMG's basic digital distribution strategy*

Outside of the statutory licensing framework, WMG has negotiated an increasing number of deals for the digital exploitation of WMG's extensive catalog of copyrighted sound recordings. As explained above, WMG negotiates each such deal with the goal of generating substantial revenue.

In our marketplace deals, there are a few significant elements that are of particular value to WMG, and important components of our negotiating strategy. The single most important aspect of negotiated marketplace agreements is that they almost all feature a payment structure based on the greater of two different amounts or the greatest of three different amounts.



Specifically, WMG almost always requires digital distribution services to pay the greatest of [REDACTED]  
[REDACTED]  
[REDACTED]. In some of our agreements, such as those with on-demand audio streaming services, the greatest-of structure depends on a calculation of WMG's proportionate share, or the percentage of the total performances that are WMG-owned or controlled sound recordings. This approach ensures that, no matter what the business model of the licensee WMG is fairly compensated for the fact that we and our recording artists are providing the entire foundation for the service – the music – and the related commercial opportunity. Without the music, these services – whether ad-supported, free-to-the-listener or subscription streaming, permanent downloads, or mobile ringtones, whether the licensee wants to give away music for free as a loss leader, or wants to extract the maximum possible payment for it – simply would not exist. Moreover, this general deal structure ensures that if the service is tremendously successful and has significant revenues driven by the availability of WMG content, WMG shares in that success.

WMG's marketplace agreements contain a host of additional provisions that are of significant value to the company. WMG would not enter into agreements without them or would require other consideration if some or all of them were not present. All of these deal components are designed to ensure that each digital audio distribution service functions as a distinct product, offering a distinct revenue source, and to limit the financial risk to the extent the service substitutes for other revenue sources. Moreover, none of these valuable deal components are features of the statutory license.

For example, WMG generally receives non-refundable advances on an annual and occasionally monthly basis in the context of any agreement for digital music services. These

advances, even when they are recoupable against future royalty payments, serve as minimum revenue guarantees. WMG also generally requires licensees to meet rigorous security provisions, specifies the audio quality of streams offered by a service and limits the types of devices on which music can be streamed or downloaded. For example, we generally negotiate different rates depending on whether a service offers mobile distribution or only distributes to a personal computer. WMG also negotiates extensive and uniform reporting requirements for these services, along with technical and financial auditing rights, thus allowing WMG broad oversight over the commercial distribution of its copyrighted works.

Moreover, WMG negotiates holdback rights that restrict our distribution partners from using tracks that WMG cannot provide based on restrictions in our artist agreements. WMG also negotiates holdback rights so that it can create exclusive deals for certain content, enabling WMG to derive greater value, including by way of lucrative sponsorship opportunities. Under the statutory license, non-interactive services are authorized to play not only the works that WMG authorizes other services to use, but also sound recordings that WMG cannot license for downloads or subscription services (due to contractual restrictions) and sound recordings that WMG, pursuant to holdback rights, chooses to exploit through an exclusive deal for some amount of time. If WMG were to enter into an arms-length agreement for the right to play all of WMG's sound recordings without limitation, such an agreement would command a premium.

Finally, in our marketplace agreements, WMG generally negotiates terms of short duration. WMG will not lock itself into an unfavorable deal in the digital environment that, while maturing, is also still evolving. To the extent we would enter into a longer-term deal, we would require very significant payments to protect WMG if the digital music service becomes very successful, as well as some ability to terminate in the event the service does not perform as

hoped. The generally short term of our marketplace agreements allows us to continually reassess the viability of a given service and analyze whether any rates need to be adjusted. The long term of the statutory license – five years – means that there is no opportunity to correct for any undervaluation until the next rate-setting proceeding.

C. *On-demand services*

I understand that in each of the last three rate-setting proceedings conducted by the Judges for statutory licenses under 17 U.S.C. §§ 112 and 114 the Judges have relied heavily on the marketplace for on-demand subscription audio streaming services. As the most mature and developed freely-negotiated digital distribution channel that does not involve the purchase of permanent copies of music, I believe that the terms for these services continue to present meaningful insight into the value of sound recordings.

In the U.S., WMG's negotiated agreements with subscription streaming services include a per-play minimum payment metric that we view as the absolute floor for our revenue and a minimum protection for the value of the recordings we provide. The [REDACTED] [REDACTED] represent the potential upside for our revenue. Although we negotiate the amounts of the per-play minimums, the [REDACTED] [REDACTED] with each streaming service, the common goal in all of these agreements is to ensure fair compensation for WMG and its recording artists for the use of our sound recordings.

Subscription, on-demand streaming services have been in existence for about a decade, and the market continues to evolve. Below, I outline the current state of that market, and highlight some of the most salient features of WMG's agreements with these services.

1. *Marketplace structure and deal terms*

Among the most established and profitable negotiated digital distribution deals that WMG has executed are those entered into with subscription on-demand streaming services. These services offer the height of the interactive experience for a subscriber – the ability to hear exactly the song the subscriber wants to hear when he or she wants to hear it (hence, “on-demand”), as well as the more “lean-back” functionality typically offered by webcasting services. Not only can subscribers hear requested songs via audio stream online, these services also typically permit subscribers to stream or conditionally download the songs to their PC hard drive and to at least one mobile device (depending on the service and the subscription purchased). The songs that have been downloaded by a subscriber from one of these services can be played on-demand, and remain accessible on the subscriber’s hard drive or portable device for as long as the subscriber maintains his or her paid subscription.

Services like Rhapsody and Microsoft (and Napster before it was acquired by Rhapsody) have offered this type of service for years. But the retail pricing in this market has changed over time. At the time of the *Webcasting II* proceeding, a non-portable on-demand streaming subscription generally retailed for \$9.99 and a portable subscription was \$14.99. For the most part, the corresponding prevailing prices in today’s market are \$4.99 for a non-portable subscription and \$9.99 for a portable subscription. In addition to this price drop, we have observed the emergence of a new customer acquisition model for subscription, on-demand streaming services that has been dubbed “freemium.” The most prominent freemium service is Spotify, which launched in the United States in the summer of 2011, but services like MOG and Rdio, which have been around for longer, have recently adopted this model as well.

The freemium model features three tiers of service, the most basic of which provides for a limited amount of free on-demand streaming to a personal computer. But these companies aggressively seek to convert the users of the free service to more attractive (and remunerative to WMG) tiers of service that allow for unlimited non-portable streaming at \$5 per month and unlimited streaming to both personal computers and mobile devices at \$10 per month. This integrated service offering presents an alternative to the more traditional customer acquisition model, which offers a very limited free trial before requiring a subscription.

In our agreements with these types of services we seek to maximize the potential total revenue generated through a deal that individually prices each of the service tiers, but evaluates all of the offerings from a given service as part of an integrated agreement. These deals follow the general template I outlined above of a three-tier, greatest-of structure featuring a [REDACTED]. Importantly, despite the drop in retail price in the interactive subscription market, [REDACTED]. For example, in our agreement with MOG, for the subscription tiers, WMG is paid the greatest-of either:

- 1) [REDACTED];
- 2) [REDACTED]; and
- 3) [REDACTED].

WMG believes that as these services reach scale, in terms of subscriber numbers, there may be an opportunity to seek even higher licensing fees.

Each of these services is experimenting with slightly different customer acquisition models, but all of them are working hard to build strategic distribution arrangements with mobile phone carriers. And these efforts appear to be working, as some services have been able to enter

into arrangements with mobile phone carriers to include the service on new phones and to allow for direct billing for the service through a subscriber's mobile phone bill. WMG is cautiously optimistic about the future of this business model.

3. *Radio features*

Noninteractive, statutory webcasting remains an incredibly popular music distribution platform, with services like Pandora developing substantial user bases. In light of the apparent popularity of this type of “lean-back” service, wherein the music programming is generally “pushed” toward the listener as opposed to specifically requested, many of WMG’s digital distribution partners feature radio-like features on their services. Some services, like Slacker, build their service primarily around a DMCA-compliant radio offering, with increased functionality that WMG has licensed for a fee. But we also understand from some of our business partners that subscribers to on-demand services spend a substantial amount of their time using radio-like features that are bundled with on-demand services. Some of these services are preprogrammed radio offerings, while others offer customized radio offerings based on user input regarding preferred artists or genres. In all of these offerings, rather than selecting songs one-by-one subscribers are listening to sound recordings that are pushed to them. On services like Rhapsody and MOG, these radio offerings are one component of the overall subscription service, rather than freestanding services and the licensing fees for the radio component is not separately negotiated.

Services like Rhapsody and MOG have also implemented features designed to make use of their services more social. Primarily through partnering with Facebook, these services allow subscribers to share with their social network the music that they are listening to. This feature, which also allows users to share the playlists that they have created, turns music listening into an

online social experience, drives interest in the services from non-subscribers, and allows subscribers to essentially operate as mini-broadcasters, presenting their curated musical interests to an audience of their choosing.

D. *Other digital distribution agreements*

Although I believe that the subscription, mobile on-demand audio streaming services are the best reference for setting a rate for the SDARS, I discuss below some of WMG's other current digital distribution agreements. These agreements demonstrate the high value that WMG assigns to its sound recordings and the kinds of market rates that exist outside of the context of the statutory license.

1. *Permanent Downloads and "Cloud" Locker Services*

The single largest contributor to WMG's digital revenues is the sale of permanent downloads through Apple's iTunes Store. WMG has entered into agreements with Apple and other services that sell permanent downloads of individual sound recordings to purchasers via an online store. For such download services, WMG is paid pursuant to a wholesale rate card. Currently, WMG is paid approximately [REDACTED] per downloaded track, or [REDACTED] of the retail price. However, WMG retains the discretion to increase those rates or to [REDACTED]. Several services also offer over-the-air downloads of full-track sound recordings to mobile phones. For example, the iTunes application allows consumers to directly download songs to their mobile phones. As this market has developed, and as mobile connectivity has increased, the retail prices and contractual licensing fees for downloads to mobile devices have converged with the prices and fees for downloads to personal computers. This is likely due to the fact that, unlike streaming products, a

permanent download can easily be transferred between portable and non-portable devices, such that the premium normally associated with portable services is less relevant.

A number of permanent download retailers have also recently launched so-called locker services, that allow users to store purchased music on remote servers (or in the “cloud”), as opposed to their local hard drives, and access their own music libraries from other computers or through other devices. WMG has negotiated agreements with some, but not all, of these locker services, and in our agreement with Apple for its service, we are paid the greater of [REDACTED]  
[REDACTED]  
[REDACTED] and [REDACTED]. WMG’s agreement with Apple for this service also contains stringent rules regarding access to content and robust reporting requirements.

## 2. *Ringtones and Ringbacks*

WMG also continues to license its sound recordings for use in connection with mobile phone personalization, for example as ringtones and ringbacks.

Ringtones are digital versions of sound recordings that serve as the ringer on a user’s cell phone. Mastertones refer to ringtones that are digital versions of a master sound recording – usually a portion of a sound recording no longer than 30 seconds. Consumers regularly pay between \$2.00 and \$2.99 for individual mastertones. WMG regularly requires ringtone retailers to pay wholesale prices in the amount of the greater of [REDACTED]  
[REDACTED]. Ringtones sold by Apple are subject to the greater of [REDACTED].

A ringback tone is a stream that a user can select to be played for a caller that is phoning the user. The ringback tone takes the place of the normal ring heard while waiting for the recipient to answer. Providers frequently charge \$2 per ringback tone, plus a monthly service fee



of \$1-2. WMG generally receives the greater of [REDACTED]  
[REDACTED].

3. *Video Streaming*

WMG's approach to music video streaming has continued to evolve since I testified in the *Webcasting II* proceeding. The market for video streaming is now dominated by two services – YouTube and Vevo. Whereas our earlier video streaming agreements sought to differentiate between on-demand and noninteractive uses of video streaming, the market has developed in such a way that noninteractive, preprogrammed video streaming is not really a relevant service. The overwhelming majority of video streaming is done by users on an on-demand basis. Thus, our current agreements with video streaming providers focus not on [REDACTED] rates, but rather on a [REDACTED] metric. In our agreement with YouTube, for example, WMG is paid between [REDACTED]  
[REDACTED]  
[REDACTED]. In terms of total dollars, these agreements have proven more attractive to WMG than earlier agreements.

Moreover, in our video streaming agreements, WMG retains significantly more control over what videos from our catalog can appear on the site and how the branding around those videos is presented. WMG does not license its entire catalog to video streaming services. WMG also has more ability on video streaming services to direct traffic to WMG-controlled websites or direct and share in advertising by, for example, [REDACTED] as is the case in our agreement with YouTube.

### Definition of Revenue

I understand that SoundExchange has proposed revising the definition of revenue on which SiriusXM pays royalties. I believe that it would be helpful for the Judges to have a sense of how WMG approaches the definition of revenue in our marketplace agreements. When our agreements include a percentage-of-revenue metric, and most of them do, we have to negotiate both the rate and the definition of revenue to which that rate will be applied. A high percentage of revenue rate becomes illusory if the revenue base is defined too narrowly.

In defining revenue, we have a number of overarching strategic considerations. First, we strive to ensure that the revenue definition accurately captures the revenue that we believe is driven by the use of WMG's sound recordings. We thus focus the revenue definition on the ways in which a given service generates revenue from our music. In the context of a subscription-only audio streaming service, for example, this approach would suggest a revenue definition based on subscription revenues. For services that also generate advertising revenue in conjunction with a music offering, such revenues would also likely be included in the applicable revenue definition. Where still other revenue streams are directly or indirectly attributable to the use of our music, they too should be included.

Second, we work to keep our revenue definition specific and easy to administer for our partners. A revenue definition that contains carve outs that are open to interpretation is undesirable because it may incentivize a service to "game" the definition to its advantage, and we may lack the ability to effectively prevent such gaming, absent an audit. This potential for gaming the revenue definition is also probably the single most important reason to keep the duration of our agreements short. With a short term, we can fix any deficiencies in a revenue definition and ensure that WMG is fairly compensated. From the outset, however, the more

specific a revenue definition is the less likely there are to be disputes between WMG and licensees about what revenue is properly included or excluded when calculating the applicable royalty fee. Of course, we generally reserve the right to audit licensee's records (a right that SoundExchange also has with respect to statutory licensees), but a specific revenue definition helps minimize the likelihood that we will need to undertake an expensive audit, or to renegotiate the terms of the deal, to ensure that WMG is being properly compensated.

### **The Preexisting Subscription Services**

Along with setting a rate for SiriusXM's SDARS service, I understand that the Judges will be setting a rate for the preexisting subscription services (PSS), Music Choice and Muzak. These two services, which provide preprogrammed genre-based channels of non-interactive digital music on cable television systems, are not comparable to any other services that I know of in the market primarily because the PSS are not purchased directly by consumers, but are instead provided as a part of cable television subscription bundles. The PSS currently pay 7.25% of their revenue to SoundExchange under the statutory license and that rate will increase to 7.5% in 2012. Put simply, I can think of no circumstances in a free market in which WMG would agree to license its entire catalog of sound recordings to a music service like the PSS for a percentage of revenue as low as 7.5%. As I explained above, the marketplace agreements that we have negotiated for digital music services contain percentage-of-revenue rates that are in the range of 50-70% as one part of a two- or three-pronged rates structure, significantly higher than the 7.5% of revenue that the PSS will be paying next year. From WMG's perspective, such a rate is simply not supported by the market for our sound recordings.

### The Ephemeral Right

I understand that in addition to setting a rate for the public performance right for the SDARS and the PSS, the Judges must also set a rate for the ephemeral right.

In WMG's marketplace agreements, we are careful to separately grant all of the necessary rights that a service needs to operate. In all contexts that I am aware of, the services to which we license our catalog require both an ephemeral right and either a reproduction, distribution or performance right. The ephemeral right is undeniably valuable and necessary for the operation of digital services. Despite granting these rights separately, however, we do not set different license fees for the rights. Instead, as shown above, our agreements contain blended rates that compensate WMG for all of the licensed uses of our sound recordings. To the extent that a service sought a license from WMG for just the ephemeral right, we would need to determine how to properly establish a fee for that right, outside of the bundled approach we typically use.

The only parties that I am aware of that have expressed a strong position on the value of the ephemeral right are the artist representatives within SoundExchange. My understanding is that in this proceeding, SoundExchange is proposing that 5% of the bundled royalties under Sections 112(e) and 114 should be attributed to the ephemeral. That proposal is consistent with the rate structure that was proposed by SoundExchange in *Webcasting III* and agreed to by SoundExchange and SiriusXM in a settlement of the ephemeral issue in *SDARS I*. In both cases, I understand that this rate structure was adopted by the Judges. I do not know of any reason why a different structure would be appropriate for the SDARS or the PSS in the upcoming rate term.

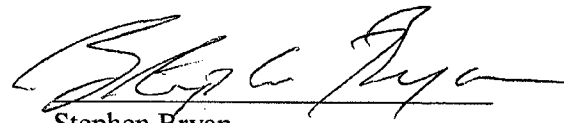
**Role of the Collective for Statutory Licensing**

WMG strongly believes that in the interest of efficiency for both the services involved in this proceeding – the SDARS and the PSS – and those who receive revenue from the statutory license, there should be one unified licensing collective and that SoundExchange should be that collective. SoundExchange, a nonprofit organization governed by an equally-weighted coalition of artists (and representatives of artist organizations) and representatives of recorded music organizations, has been repeatedly designated as the collective for statutory royalties and has done a commendable job in this role. It collects and distributes royalties from and to countless parties and persistently seeks out artists and record labels that may not be aware of monies being held for them. Based upon its track record, SoundExchange deserves to maintain its position as the only collective.

**Public Version**

I declare under penalty of perjury that the foregoing is true and correct.

Date: 11/23/11

  
Stephen Bryan

Before the  
**UNITED STATES COPYRIGHT ROYALTY JUDGES**  
Washington, D.C.

In the Matter of:

Determination of Rates and Terms for  
Preexisting Subscription Services and  
Satellite Digital Audio Radio Services

Docket No. 2011-1  
CRB PSS/Satellite II

**TESTIMONY OF**  
  
**CHARLES CIONGOLI**

**Executive Vice President  
and  
Chief Financial Officer,**

**UNIVERSAL MUSIC GROUP NORTH AMERICA**

**Public Version**

**Witness for SoundExchange, Inc.**

**QUALIFICATIONS**

I am Executive Vice President and Chief Financial Officer for Universal Music Group North America, a position I have held since 2003. I am ultimately responsible for all the finance activities of Universal Music Group's North American operations, which includes seven United States record label groups, as well as music publishing and distribution operations. In my capacity as Executive Vice President and Chief Financial Officer, I have personal knowledge of, and regularly review, the finances of Universal Music Group's record label operations in the United States ("UMG").<sup>1</sup>

I was previously Senior Vice President of Finance for Universal Music Group North America. Prior to that, I was employed as Vice President of Finance for MCA Records, and also served as Vice President and Group Controller for Records, Distribution & Manufacturing and Publishing. I began my employment with MCA in 1990 as the Group Controller for Records, Distribution & Manufacturing and Publishing which operations were part of the MCA Music Entertainment Group, which became the Universal Music Group in 1996. Prior to joining MCA in 1990, I was a Senior Manager with the international accounting and consulting firm Price Waterhouse where I provided a variety of audit, accounting and special services, including mergers and acquisitions.

I received a Bachelor's degree in Finance and Accounting from California State University at Northridge. I am a Certified Public Accountant (CPA) in the State of California, and I am a member of the American Institute of Certified Public Accountants and the California State Society of CPAs.

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<sup>1</sup> The figures I provide in this testimony are for Universal Music Group's operations in the United States. For purposes of this testimony, I refer to these U.S.-only operations as "UMG."



## **DISCUSSION**

### **I. Universal Music Group**

The recorded music business of Universal Musical Group is the largest record company in the world and UMG had approximately [■]% share of the domestic recorded music market in 2010, including approximately [■]% market share for CD album sales in the United States and approximately [■]% market share of domestic digital sales. UMG consists of numerous acclaimed and popular record labels, including Motown Records, Universal Records, Geffen Records, Interscope Records, MCA Nashville, Island Records, and Def Jam Records. Our artist roster includes many of the biggest stars in almost all styles of music, including artists such as Andrea Bocelli, Lady Gaga, Rihanna, Sugarland, Scott McCreary, Justin Beiber, The Black Eyed Peas, and Eminem.

Our history dates back to the Music Corporation of America, which was founded in 1924. We have been a major force in the recording industry since Music Corporation of America acquired Decca Records and several other labels in the 1960's, and then formed MCA Records in 1971. Our growth in the record industry has been steady since those days. After adding several legendary labels to its fold, including Interscope Records and Geffen Records in the 1990's, MCA Music Entertainment Group was renamed Universal Music Group in 1996. A major addition to our company came in 1998 when we acquired the PolyGram group from Phillips N.V. UMG is an indirect, wholly-owned subsidiary of Vivendi SA, and is headquartered in Santa Monica, California.

### **II. The Challenges of the Transforming Music Industry**

It is hardly a secret that the music industry has completely transformed over the past decade. UMG historically derived the vast majority of its revenues from the sale and distribution

of pre-manufactured physical products, such as vinyl records, cassette tapes, and CDs. Unlike music publishers who have long enjoyed a public performance right and associated revenues whenever their songs are played on the radio, we have been almost entirely dependent on the revenues generated by the sale of these physical products. Over the past decade or so, however, sales of these physical products have dropped precipitously and continue to decline each year. According to figures from the Recording Industry Association of America (“RIAA”), record manufacturers in 2000 shipped a total of 1.1 billion physical product units with a total retail value of approximately \$14.3 billion. Since then, sales have declined each year such that in 2010 record manufacturers shipped only 241 million physical product units with a total retail value of approximately \$3.6 billion, a decline of over 70%.

At UMG, we recognize that our business has changed dramatically over the past decade and that physical product sales will almost surely continue to decline in the future. As a result, we have adapted our business with a focus on digital exploitation, which the marketplace and consumers demand. With the transformation of the music industry, we face new challenges and market conditions. These new factors are relevant to the royalty rates and terms set in this proceeding. I explain in more detail below.

*First*, as the industry migrates from physical to digital exploitation, consumers are purchasing fewer and fewer physical products and are instead opting for an array of digital audio formats to consume sound recordings, including online music stores such as iTunes, streaming over the internet, and satellite radio through Sirius XM, to name a few. As a result of this substitution of digital for physical, revenues from digital exploitation of our recorded works — including those attributable to statutory and other forms of licensing activities — are now viewed as a primary source of revenues that must be maximized in order for the recorded music business

to survive. Consequently, UMG has invested heavily in the personnel and infrastructure necessary to operate a digital exploitation business. In 2010, digital revenues (inclusive of royalties received through SoundExchange) for UMG were [REDACTED] — about [REDACTED] percent of total physical and digital revenues. That is up from [REDACTED] (roughly [REDACTED] percent of total physical and digital revenues) in 2009 and [REDACTED] (roughly [REDACTED] percent of total physical and digital revenues) in 2008. Across the industry, the RIAA reports that in 2010 the total retail value from physical and digital exploitation were split almost evenly, at 53% physical to 47% digital exploitation. Only five years ago (in 2006), according to the RIAA, the split was 84% physical to 16% digital across the industry. UMG recognizes that this trend will almost surely continue into the future. As a result, we understand that if we are to survive as an organization and continue to make our substantial investment in new recorded works and artists, we must generate additional revenue from our digital exploitation.

*Second*, digital exploitation has altered the model for how the public consumes music. The marketplace is slowly migrating from a model based on “ownership” of music to a model based on “access” to music. Each year, UMG sees more and more of its revenue coming from services that do not “sell” music to consumers, but rather provide “access” for consumers to a wide range of music. These services include not only interactive streaming services, such as Rhapsody, Spotify, and Napster, but also non-interactive streaming services such as Pandora and satellite radio through Sirius XM. Whereas consumers previously were limited to listening to music that either (a) they owned or (b) was currently playing on the limited number of radio or music television channels they received, consumers now have the ability to “access” the music they want to hear directly through one of these services without having to purchase permanent copies of the music. For example, Sirius XM offers over 70 channels of commercial-free music,

covering the full spectrum of musical genres. It is a fair bet that when Sirius XM subscribers tune into their satellite radios, they can “access” the type of music they want to hear when they want hear it.

As a result of this changing model, statutory and direct licenses are becoming an increasingly important part of UMG’s revenues and are essential to its financial performance. While revenues from these services once accounted for only a tiny fraction of our annual revenues, they now comprise a major source of revenue. In 2010, for example, UMG and its featured and non-featured artists received approximately [REDACTED] from SoundExchange in statutory license royalties. UMG received another [REDACTED] in direct license royalties from other audio subscription and streaming services. This is an increase of [REDACTED] since 2006. In short, though UMG continues to derive much of its digital revenue from sales of recorded music in the form of permanent digital downloads (such as through iTunes), the trend has been towards “access” services like Sirius XM.

Digital exploitation has altered the marketplace in another way: when consumers purchase music now under the “ownership” model, they more frequently buy a la carte songs rather than albums. In 2010, for example, UMG sold [REDACTED] a la carte songs (including CD singles) and [REDACTED] albums. In contrast, in 2000, prior to the digital distribution revolution, UMG sold [REDACTED] a la carte songs (including CD singles) and [REDACTED] albums. This has hugely important implications for our business. Previously, some had argued that radio and television were promotional of recorded music in that they could lead some listeners to purchase albums that cost \$10 or more based on the popularity of “hit” songs played on the airwaves. To whatever extent radio and television may have been previously promotional, the digital revolution has severely muted that promotional aspect. Moreover, as noted earlier,

many consumers simply choose to “access” music through the various services described above rather than purchasing any music at all. As a result, UMG cannot rely solely on the sale of physical products or permanent downloads to survive as a business; we must obtain substantial royalty revenues from “access” services in order to survive as a business.

*Third*, consumers only have a finite amount of time to consume music in a day. Sirius XM competes head-to-head with other listening formats, including CDs, iPods (or other similar devices), webcasting, and interactive services. When subscribers listen to Sirius XM, they are doing so at the expense of one of these other formats. As a result, UMG needs to obtain revenues from Sirius XM through SoundExchange that are equivalent to the revenues that it would have received through one of these other formats. The statutory license for Sirius XM should not be set lower than the license rates we regularly receive in the open market through direct licensing deals (recognizing, of course, that not all Sirius XM content is music).

In sum, UMG relies heavily on digital revenues from all sources. Digital revenue is now a primary source of revenue for our company and is necessary for us to continue investing in new sound recordings and new artists. Moreover, over the course of this rate term, I can safely say that our dependence on digital revenues and performance royalties will likely increase further.

**A. The Failure of Digital Revenues to Fully Recover Lost Physical Revenues Makes It Difficult for Record Companies to Recoup Their Investment**

As it currently stands, digital revenues fall far short of the revenues we have lost from physical sales over the past decade. Consequently, it has not been easy for UMG to recoup our substantial investments in the creation, marketing, and distribution of recorded music, as described in more detail below. According to figures from the RIAA, in 2000, the total retail

value of music sold in the United States was \$14.3 billion. In comparison, by 2010, the total retail value of music sold (including all digital revenues) was \$6.85 billion, less than half of what it was a decade earlier. Indeed, from 2009 to 2010 alone, there was a decline of nearly 11% in the value of music sold. UMG, like other record companies, must find new sources of digital revenue in order to survive.

To date, UMG's digital revenue has failed to close the gap following the loss of traditional physical product sales over the past decade. While some have predicted for several years now that growth in digital revenue would make up this gap, digital revenues have yet to do so. According to the RIAA, in 2010 the total retail value of digital sales and licenses (including statutory and direct license revenues) was \$3.2 billion. This was up narrowly from \$3.1 billion in 2009. During that same time period, the total retail value of physical sales declined by \$921 million. Moreover, it is plainly obvious that the growth in digital sales and licenses from essentially zero in 2000 to \$3.2 billion in 2010 comes nowhere near the \$10.7 billion decline in physical sales over the same time period (\$14.3 billion (2000 physical retail value) – \$3.6 billion (2010 physical retail value)).

Our experience at UMG is generally consistent with these nationwide trends. UMG's domestic revenues from physical product has fallen from [REDACTED] in 2000 to [REDACTED] in 2010. Over the same period, digital revenues have risen from virtually nothing in 2000 to [REDACTED] in 2010 (inclusive of royalties received through SoundExchange). While our digital revenues are growing, revenues from physical sales continue to decline at a faster rate. In short, we are becoming increasingly dependent on our digital revenues for survival. We therefore seek to ensure that all avenues of digital exploitation, including the performance royalties that we receive from Sirius XM, accurately reflect the substantial value of music and

generate sufficient revenue to permit us to continue making the necessary substantial investments in creating sound recordings.

**III. UMG's Substantial Investment in and Contribution to the Creation, Marketing, and Distribution of Sound Recordings**

UMG, like other record companies, makes a substantial investment in and contribution to the creation, marketing, and distribution of sound recordings each year. UMG spent a total of approximately [REDACTED] in 2010 in order to create, market, and distribute recorded music (including compensation to composers). Our substantial investment, and that of our fellow record companies, is vital to the functioning of the music industry. We often are involved in virtually every step of the development and distribution of recorded music, from finding and developing musical talent, to selecting and funding a creative team (including a studio, producer, and engineer) that enables the musical talent to create recorded music, to marketing and distributing that music to the public, all in the hope of transforming the musical talent into important and profitable brands. Simply stated, without the substantial investment and creative efforts of UMG and our fellow record companies, it would not be possible to bring to the marketplace all of the new recordings and new artists that the public expects.

This substantial investment yields dividends to many other industries that are dependent on the recorded music and brands that are developed and financed through our investment. These industries include radio, webcasting, and other digital services, live performance and touring, branded or sponsored merchandising, film and TV, and music publishing, to name a few. Each of these industries creates jobs and revenue for numerous parties, including the artists themselves. Our initial financing and creative efforts to record, market, and promote the recorded works provides substantial value to each of these industries.

Below I explain in detail UMG's substantial investment of time and money into the various phases of creating, marketing, and distributing recorded works. But before I go into those details, it bears emphasizing that UMG has been cutting costs for the better part of the past decade. From 2005 to 2010, we have cut overhead costs by [REDACTED]. This has unfortunately meant cutting jobs (our headcount has been cut by [REDACTED]) as well as cutting other expenses whenever possible. My understanding is that our fellow record companies have similarly been cutting costs.

**A. Finding the Musical Talent and Creating the Recorded Works**

For UMG, the first stage in the creative process falls on the Artists & Repertoire ("A&R") Department, which is responsible for the discovery and selection of new artists, working with artists on the recording process, and delivering a final sound recording to the label for release. UMG's creative efforts and investment begin with finding musical talent. Musical talent is discovered through various means, but we primarily rely on members of our A&R Department who go to clubs and concerts, review thousands of demonstration recordings, scan the Internet, attend festivals, and perform market research. While our A&R Department scouts thousands of artists each year, we end up signing only a small number of new artists each year. Needless to say, finding musical talent is a laborious process, requiring uniquely skilled professionals who are able to sift through thousands of talented musicians to find the few who have true superstar potential and will be commercially viable.

Once we sign an artist, our A&R team shifts its focus to working with the artist to create the recorded music. This can include assisting the artist in selecting and developing material to be recorded, which can be a lengthy process and often involves working with the artist to develop a brand or image that will be used by the artist throughout his or her career. Our A&R



Department also may work with the artist to select a creative team, including a producer, engineer, and studio who can best help the artist reach their creative potential. In many cases, our staff is involved throughout the recording process, managing it from start to finish in a sort of executive producer role. Indeed, even after the basic recording process is complete, our A&R team often remains integrally involved in completing the finished product, overseeing the mixing and mastering of recordings as well as any re-mixing or editing of the recordings that may be required for certain markets or uses.

All told, UMG invests an enormous amount of time, energy, and money into the creation of musical works. In 2010, UMG spent approximately [REDACTED] on recording costs, including costs paid to studios, producers, sound engineers, backup musicians, and others involved in the recording process, and advances to artists. Furthermore, UMG spent an additional [REDACTED] to employ the A&R staff who find and work with the artists.

#### **B. Marketing Music**

After a recording is completed, we turn our attention to marketing and distributing the recorded works. In the recording industry, “marketing” is best thought of as a broad range of activities that connect our artists to their target audiences. The investment in marketing includes the cost of making music videos, consumer advertisements, Internet marketing and website development, publicity and promotional tours, promotional merchandise, designing attractive “packaging” for the recordings, and a host of other expenses. Most of these marketing costs are incurred up front, before the record company is able to generate any revenue from the music that is being marketed. UMG invests extraordinary amounts of time and money into its marketing activities. In 2010, UMG spent [REDACTED] on marketing activities, including on our in-house staff and various other out-of-pocket expenses. Without these investments, few, if any,

recordings would become the commercial successes necessary to sustain the music industry. Indeed, even with all of our marketing efforts, the vast majority of our recordings are not commercially successful.

**C. Manufacturing and Distributing Recorded Music**

Even as physical sales decline and our business is shifting increasingly to digital exploitation, the costs associated with our distribution operations remain significant. In 2010, we recognized [REDACTED] in manufacturing and related expenses, and [REDACTED] in distribution and selling costs. These costs comprise the departments responsible for retail interaction, customer service, credit and collection, and supply chain fulfillment with both physical and digital retailers, as well as the departments responsible for the production of our inventories and various logistical operations necessary for the business.

**D. Other Costs**

Like any other business, UMG faces various other costs which are not directly related to the creation, marketing, and distribution of sound recordings, but which are nevertheless essential for us to function as an organization so that we can invest in new sound recordings. These expenses, which include the costs associated with our executive, legal, finance, copyright and royalties, information technology, human resources, corporate development, and administrative departments, amounted to [REDACTED] for fiscal year 2010. The activities of these departments are critical to the functioning of the company and are essential to supporting the creation, marketing, and distribution of the sound recordings.

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In total, UMG spent [REDACTED] in 2010 related to its recording and distribution business. The sound recording business is thus risky and speculative. We pay enormous upfront

expenses as described earlier through various recording, marketing, and distribution costs as well as artist advances, almost all of which must be spent before we receive a single penny in revenue from the recording. In light of the myriad of challenges presented by the transforming music industry, it has been tougher and tougher for us to recoup our investments and to earn an appropriate return on our invested capital.

I declare under penalty of perjury that the foregoing is true and correct.

Date: 11/28/2011

  
Charles Ciongoli

**Before the  
UNITED STATES COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

In the Matter of:

Determination of Rates and Terms for  
Preexisting Subscription Services and  
Satellite Digital Audio Radio Services

Docket No. 2011-1  
CRB PSS/Satellite II

**TESTIMONY OF**

**RAYMOND M. HAIR**

**International President of the American Federation of Musicians  
of the United States and Canada**

**Witness for SoundExchange, Inc.**

## **WRITTEN DIRECT TESTIMONY OF RAY HAIR**

### **Background and Qualifications**

I am a professional musician and the International President of the American Federation of Musicians of the United States and Canada, AFL-CIO (“AFM”). I have spent my entire life playing, studying and teaching music, representing musicians, and trying to improve the livelihood of professional musicians.

I began playing the drum set professionally as a youngster in Mississippi in nightclubs there before liquor was legal and before I could drive a car. At one time or another, I’ve performed every style of popular music. I was 13 years old when I performed my first professional engagement, and I became engaged as a recording musician while I was in high school. In the early 1970’s, I performed and recorded with Tommy Stuart and his group, the “Rubberband.” Our hit, “Your Man Done Gone,” moved up the Billboard charts during the summer of 1970. Over the next few years, I recorded dozens of tracks, mostly demos, in Jackson, Mississippi.

Throughout those years in Mississippi and later in Texas, I earned my way through college by performing professionally. I received an undergraduate degree in music from the University of Southern Mississippi. In 1975, I left Mississippi for Texas, where I earned a graduate degree in jazz studies from North Texas State University (now the University of North Texas). I eventually taught drum set full-time at UNT and I enjoyed teaching music to undergraduate and graduate students. I never stopped performing, though. I started my own group, Yazoo, which performed in many states of the United States and experienced the many forms of exploitation that musicians endure when they work five or six nights a week in dance

lounges nightclubs, showrooms and concert halls in city after city. I spent time in Dallas recording studios in those years, too, doing sound recording and jingle session work.

I learned a lot of things in the studios and on the road, but the most important thing I learned was the value of the union to a professional musician. The AFM set standards for live performances to protect us from being ripped off, and stood by us if we had disputes with purchasers. The AFM negotiated industry-wide rates and terms for recording musicians that improved conditions considerably, whether recording records, television or movie soundtracks, or commercial announcements.

Ultimately, I became very involved in the union, and in 1983 I relinquished my teaching position and greatly reduced my performing career in order to become the President and Secretary of the Fort Worth Professional Musicians Association, which was Local 72 of the AFM. Later, I guided the merger of the Dallas and Fort Worth locals, and served as the President of the merged Local 72-147 continually until 2010. At various points through those years, I also served on the AFM's International Executive Board, which supervises the affairs of the entire AFM. In 2010, I was elected to my current full-time position as International President of the AFM. As the AFM International President, I also serve as a Trustee of the AFM and AFTRA Intellectual Property Rights Distribution Fund ("AFM/AFTRA Fund") and the AFM and Employers' Pension Fund, and as a Director of the Alliance of Artists and Recording Companies.

As a Local and International AFM officer, I've represented every kind of professional musician. I've led or participated in negotiations for local collective bargaining agreements covering symphony, opera and ballet orchestras and theaters, and I pioneered the free-to-attend, continuous, multi-stage festival entertainment format in North Texas. On the national level, I

have led or participated in negotiations in the commercial announcements, television, motion picture, and recording industries.

### **Discussion**

I understand that this proceeding is for the purpose of setting the rates and terms for the statutory license that the Copyright Act grants to certain preexisting subscription services (Muzak and Music Choice) and satellite digital audio radio services (SiriusXM). I am submitting this testimony to emphasize the importance of the statutory royalties to performing artists, and to express the AFM's support for the designation of SoundExchange as the sole Collective to collect and distribute the royalties at issue in this proceeding for the period of 2013 through 2017.

#### **I. AFM**

The AFM is an international labor organization representing over 90,000 professional musician members in the United States and Canada through a network of more than 250 local unions. The AFM was founded in 1896 and is the oldest and largest union of musicians in the world. AFM members record music for sound recordings, film scores, radio, television and commercial announcements, as well as perform music of every genre in every sort of venue from small jazz clubs to symphony orchestra halls to Broadway and local theaters. The AFM negotiates industry-wide agreements such as the Sound Recording Labor Agreement, which sets standard working conditions for all musicians who record under it. AFM members span the full range of professional musicians, from featured recording artists who are well-known celebrities to non-featured artists who work as session musicians in the recording industry.

The traditional area of activity for labor organizations is collective bargaining, and the AFM has been negotiating an industry-wide collective bargaining agreement, the Sound



Recording Labor Agreement (“SLRA”), which governs terms and conditions for the major recording companies and hundreds of independent companies, for sixty years. But, the AFM has long served as an advocate for musicians’ interests in various other contexts, too, including specifically serving as a strong proponent of performers’ rights and copyright protection for performers.

For example, the AFM and the American Federation of Television and Radio Artists (“AFTRA”) were critically important supporters of the Digital Performance Right in Sound Recordings Act in 1995, which created the rights at issue in this proceeding. The unions’ joint efforts contributed to the current structure of the Act, which requires that 50% of the royalties from the compulsory license for digital performances shall go to performers, and shall be paid by SoundExchange directly to them. I am proud that AFM and AFTRA helped secure the performance right and ensured that SoundExchange will pay 45% of the royalties from this proceeding directly to featured artists, and that it will pay 5% to the AFM/AFTRA Fund for further distribution to session musicians and vocalists.

## **II. The Importance of Statutory Royalties**

I cannot overstate the importance of the revenue stream from the compulsory digital performance license to recording artists and musicians. In my experience as a musician and a labor leader, I know that most of us make a living by patching together revenue from many different sources. Session fees, live performing fees, royalties, teaching, you name it – they all are necessary to earn a decent living that allows you to continue to make music. Every income stream is important to a working musician, but digital performance royalties are becoming especially important as music fans change the way they consume recorded music, from purchasing CDs and downloads to listening to music on digital music services.

Traditionally, CD sales (and later, digital sales) have been a cornerstone of compensation to featured artists and session musicians. They support the industry which provides investment for artists and employment for session performers. They provide royalties to featured artists, and for session musicians, they provide payments from the union-negotiated Special Payments Fund (“SPF”) under the SRLA. But I know from experience that sales have declined, and as a result we see less employment under the SRLA across the country, less investment in artists (which means reduced opportunities for them) and reduced SPF payments to musicians.

Digital performance royalties may not, by themselves, replace all the income from lost CD sales, but they are an increasingly important source of revenue to industry, artists and musicians. In October 2011, SoundExchange reported its largest distribution ever – \$88 million distributed to thousands of performers and copyright owners for the third quarter of 2011 alone. In 2011, the AFM/AFTRA Fund distributed just over \$9 million in digital performance royalties to non-featured musicians and vocalists. These are meaningful sums to performers. In fact, as physical product and digital download sales decline, I expect that digital performance royalties for session musicians will at some point exceed the SPF payments that they earn based on sales.

But I want to be clear. Digital performance royalties are not just important because patterns of music consumption are changing, so that “listening” is replacing “purchasing.” Their importance is more fundamental than that. The truth is that we musicians make great music. It is our talent, our training, our hard work and our passion that results in great recordings that the public across the world wants to hear. Our work is *valuable*. We believe that the use of sound recordings should command a fair price, and we believe that wherever and whenever our music brings financial value to a business, we ought to share in that value.

### **III. Designation of SoundExchange as the Sole Collective**

In prior proceedings, the AFM has supported SoundExchange as the best entity to act on behalf of performers and copyright owners as the sole Collective for the collection and distribution of statutory royalties. For the reasons I explain below, the AFM renews its support for SoundExchange to serve as the sole designated Collective for the compulsory license fees at issue in this proceeding.

#### **A. SoundExchange Is Controlled by Performers and Copyright Owners.**

SoundExchange is governed by a Board of Directors that is equally composed of performer and copyright owner representatives. Thus, the very constituencies that are served by SoundExchange are also in control of its policies and operations. SoundExchange's officers and staff are answerable to the demands of copyright owners and performers for honest, fair and efficient distributions, and for vigorous efforts to achieve fair rates that recognize the value of our music.

The nine performer representatives include artists' attorneys and managers as well as individuals affiliated with major performer organizations – the AFM, AFTRA, the Recording Academy, the Music Manager Forum and the Future of Music Coalition – which together represent tens of thousands of performers. They bring the views and concerns of a broad range of performers to the decision-making process at SoundExchange.

I think that the level of control that performer representatives have over SoundExchange has ensured that SoundExchange is committed to serving our interests as well as the interests of copyright owners. SoundExchange has demonstrated this commitment by engaging in extensive efforts to make performers aware of the royalties they are owed, to find and enroll them, and to get royalties into their hands. These efforts include reaching out to performers and their

representatives directly, partnering with other organizations to get the word out to their members, attending conferences, earning media attention, placing print and web ads, and using social media like Facebook and Twitter. SoundExchange also serves performers' interests by advocating for fair royalty rates, working for reporting requirements that will help get the money into the hands of as many performers as possible, and building the computer and service systems that enable it to distribute directly to performers.

Through all of its efforts, SoundExchange has earned the trust of performers and copyright owners alike. Perhaps the best evidence of SoundExchange's commitment to the fair representation of artists and copyright owners is that tens of thousands of artists and copyright owners have registered with SoundExchange.

**B. SoundExchange Is a Non-profit Organization.**

The AFM firmly believes that the digital performance right was created to benefit performers and copyright owners, not to provide business opportunities for agents. It also believes that performers should receive the fullest possible benefit from the royalties, and not see their royalties reduced to pay a profit to an agent. And finally, AFM believes that the Collective's decisions should be guided by the needs of performers and copyright owners, and not by an agent's business needs.

As a non-profit organization, SoundExchange litigates rates, collects royalties and distributes them – all for the benefit of performers and copyright owners, not for its own financial gain. As a non-profit organization, SoundExchange's incentives are properly aligned with the interests of royalty recipients.

**C. SoundExchange Has Substantial and Unparalleled Experience Collecting and Distributing Statutory Royalties and Has Devoted Significant Resources to Developing a Distribution Infrastructure.**

I understand that in prior proceedings, it has consistently been decided that the appropriate way to administer the compulsory license is through a single Collective. The AFM has always advocated for this conclusion, and remains convinced that it is the best system for performers. I also firmly believe that SoundExchange should be that single Collective.

The license at issue here is a compulsory license, and the license rate will be set by the Copyright Royalty Judges and not by competing agents who are negotiating in the marketplace. In this structure, the AFM has always thought that having one Collective to litigate rates, and collect and distribute the royalties, is by far the most efficient system. The administrative infrastructure that is required is necessarily paid for out of the royalties. Why pay for two (or more) computer systems, two (or more) staffs, two (or more) offices, two (or more) legal and technical structures? Why pay the costs that would inevitably follow from the need to coordinate between two (or more) different entities, with their differing systems? Why should the services that are subject to the license be required to make payments and file reports to two (or more) collectives, when it is simpler, more efficient and cheaper to deal only with one? Having a single Collective avoids redundancy and streamlines costs, to the benefit of performers.

The single Collective should be SoundExchange. SoundExchange has a demonstrated record of serving the interests of performers, seeking to maximize royalty payments to them, and working hard to find the thousands of potential recipients and get royalty payments to them (regardless of whether they are SoundExchange members). SoundExchange has already invested in the systems that are needed, and has developed the experience and expertise in all the complicated aspects of receiving reports of billions of digital performances, connecting them to

the proper performer and copyright owner recipients, processing the royalties, and paying them out. To choose a new Collective now would not serve the interests of artists or copyright owners, because it would simply require us to pay for the costs of a new entity getting up to speed. The best interests of the royalty recipients will be served by renewing SoundExchange as the Collective.

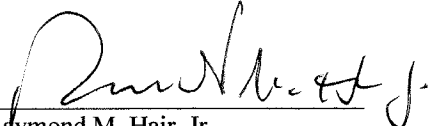
**D. MRI Is Not an Appropriate Collective.**

I understand that Music Reports, Inc. (“MRI”) has indicated its intention to participate in this proceeding. I am aware that in a prior proceeding, MRI’s sister entity, RLI, sought to compete with SoundExchange to collect and distribute royalties. It is unclear to me if MRI is seeking that in this proceeding, but if it is, the AFM believes that MRI is not an appropriate entity to serve as a Collective to collect and distribute royalties, because it meets none of the criteria that the AFM believes are important for serving performers’ interests. To the best of my knowledge, MRI is a for-profit entity, and it has indicated that it is interested in royalty collection and distribution to make money; MRI’s structure does not ensure equal participation by artists in its governance; and MRI does not have SoundExchange’s deep level of investment and experience in administering the compulsory license.

If that were not enough, MRI also suffers from a conflict of interest, in my view, because it represents the interests of music licensees. MRI recently demonstrated this conflict by acting on behalf of SiriusXM to solicit direct licenses from copyright owners that would bypass the compulsory license and SoundExchange. Any entity serving as a Collective for performers and copyright owners should work on their behalf, not on behalf of services that use the statutory licenses. To my way of thinking, the choice between MRI and SoundExchange could not be clearer.

I declare under penalty of perjury that the foregoing testimony is true and correct.

Date: 11/22/11

  
Raymond M. Hair, Jr.

**Before the  
UNITED STATES COPYRIGHT ROYALTY JUDGES  
Washington, D.C.**

In the Matter of:

Determination of Rates and Terms for  
Preexisting Subscription Services and  
Satellite Digital Audio Radio Services

Docket No. 2011-1  
CRB PSS/Satellite II

**TESTIMONY OF**

**DARIUS VAN ARMAN**

**Founder, Jagjaguwar**

**Witness for SoundExchange, Inc.**



### ***Background and Qualifications***

I am Darius Van Arman, founder of the independent record label Jagjaguwar, which is home to such recording artists as Bon Iver (who most recently debuted at number two on the Billboard charts with their most recent album) and Dinosaur Jr. (an iconic underground band that is still making critically acclaimed albums well into their third decade of existence). I am co-owner of the three independent record labels Dead Oceans, Jagjaguwar and Secretly Canadian, of the music distribution company SC Distribution and of the artist management company Fort William Artist Management. My companies have offices in Bloomington (Indiana), New York City and London, and we employ slightly more than forty people. I've been working in the music industry since 1995, solely in the independent music sector, and I've recently been appointed to the Presidential Advisory Committee for A2IM, the preeminent trade organization serving the independent music community in the United States.

### ***Independent Record Labels***

I understand the purpose of this proceeding is to set the rates that Sirius XM's satellite radio service and certain services that stream sound recordings over satellite and cable television (Music Choice and Muzak) must pay copyright owners and performers for streaming their copyrighted sound recordings. I am providing this testimony to give the Copyright Royalty Judges the views of an independent record label.

#### ***A. The Economics of Independent Record Labels and Their Role in Creating Sound Recordings***

While we care deeply about music and would like nothing more than to be able to only focus on releasing exceptional recordings by artists we have immense belief in, independent labels like ours are small businesses that need to proceed in a sustainable and responsible way, where our revenues are sufficient to cover our costs. Our business is in the world of the arts, and

we feel the product we release and the artists we support all make a very important cultural contribution. However, we do not receive any arts grants or rely on any indirect support from taxpayers in the form of tax breaks, local or trade-related. So, in the aggregate, we cannot afford to release albums that lose money for us. With every album we release, our plan is to generate a profit, or to at least break even, and, in fact, more than half of our albums generate a profit or break even. As a result, we are currently a profitable company.

Our approach to creating sound recordings differs slightly from the model that I understand is used by the major labels, and the scale of our operations tends to be smaller, but there are also significant similarities. Much like the major labels, we spend a great deal of time and effort seeking out recording artists to sign. We listen to demos (in fact, many of our most popular artists, such as Okkervil River, were discovered through an unsolicited demo), we actively attend showcases, shows and music festivals around the country, we read music websites and magazines, and we receive referrals from other bands, labels, managers and booking agents. We invest a significant amount of time not only identifying the kind of artists we want to work with (based on musical merits) but also conversing with the artists themselves (as well as their representatives) to gauge whether we would ultimately be compatible, both philosophically and with regards to business-related expectations. During this “getting to know each other” phase, we freely offer business advice to the prospective artists and connect them with those who can help them in ways that are beyond the scope of what we do. Additionally, for those artists who we eventually come to an agreement with, we consistently and over a long period of time devote significant resources to promoting their music and their touring.

We have not to date entered into deals with artists in which we participate in revenue from all spheres of the artist’s career, including touring, merchandising, branding, publishing and

master rights. Our approach to signing artists is to contract for only the master rights over the sound recordings. Also, in all of our agreements with artists to date, we have forgone a royalty-based way of accounting, and instead we share both costs and revenues with the artist in an even-split fashion, but where we're the only party that covers any loss on the aggregate. It is our hope that with such a deal structure, where profits (but not losses) are shared evenly, a true feeling of partnership between us and the artist is engendered.

Because our very identity as a company is deeply rooted in this commitment to artist development (and, as per above, engaging in a true partnership with the artist), one of the challenges we face in a declining market for music sales is that, although, industry-wide, earnings from master-related exploitation is diminishing (as consumers spend less money on traditional CDs and a large number of consumers opt to illegally download music), there is no relief or reduction in the amount of work that labels like us need to do for artists. So it is very important for us to do all that we can to ensure a fair return on our energies, both for our longer-term prospects but also so that we can, right now, continue to work at a very high level for our artists and their recordings. It is our belief that this benefits consumers and the public-at-large to a great degree, as such work both directly and indirectly improves the quality of artist recordings and performances that they experience.

B. *The Importance of Statutory Royalties to Independent Record Labels*

The plain truth facing the recording industry is that we continue to face a challenging retail landscape. Although our labels' market share has increased in recent years, the industry as a whole has not recovered to earlier levels. Digital distribution has become an increasingly important aspect of the recording industry and our business in particular. It is easier than ever to get our recordings to the people who want to hear them, but people are buying fewer albums. As

consumers change how they obtain music, the compensation that we receive must be fair, in order to ensure that we can continue to invest in making new records. If our companies were in a different position, where instead of recently increasing our market share, we had merely maintained it, we would be immediately facing significant pressure to release more records with the same level of staffing to attempt to maintain the same level of revenue. The attention of our staff would be diluted over more records, and as a result the quality of our work would diminish, not unlike how the education of the individual suffers when educational institutions increase student to teacher ratios in the face of funding cuts.

Based on our experience, a pattern we have noticed in the industry generally is that more established, older recording artists seem to release records that have a higher percentage of sales happen through physical products (presumably because their fan base is more accustomed to more traditional modes of purchasing music). In contrast, younger, less established artists tend to release records that earn proportionally more through digital revenues. Record labels like ours cannot rely on physical sales alone to sustain our business. Our labels tend to focus on smaller and newer artists, and we therefore fundamentally rely on strong digital revenues. Over the past 4 years, our digital revenues have grown approximately 300%, and now account for roughly 50% of our total revenues.

There is no single digital revenue stream that can sustain our business. But digital revenues in the aggregate are significant, and every digital revenue stream counts. An important component of our digital distribution is the statutory royalties that we receive from SoundExchange from services like Sirius XM. Over the past several years, royalties from SoundExchange have become an increasingly vital source of revenue. For example, the SoundExchange royalties that Jagjaguwar has received from Sirius XM's satellite radio service

have increased from \$932.92 in 2007 to \$25,058.96 in 2009 and \$20,237.17 in 2010, and based on the first nine months of 2011 they will likely exceed 2010 levels this year. In total, Jagjaguwar has received over \$95,000 from SoundExchange (for all the services licensed through SoundExchange) since 2007. These royalties represent a meaningful contribution to our bottom line, and we hope our statutory royalty payments continue to increase in the years to come.

### *Direct Licensing*

Music Reports, Inc. (MRI) has approached our three labels about entering into direct licenses with Sirius XM. We have not accepted MRI's proposals. On September 15, 2011, Trent Smith, a Licensing Manager for MRI, emailed all three of our labels. His email attached proposed licenses from Sirius XM to license our labels' recordings directly. I am including a copy of the email and the proposed licenses with my testimony as Exhibit SX-101DP.

Under the proposed licenses, Sirius XM would pay us directly (not through SoundExchange) at a royalty rate of "7% of gross revenue (with each label receiving its pro rata share of that amount based on its share of SXM transmissions)." The proposed licenses define the revenue base to include "[s]ubscription revenue recognized by" Sirius XM directly from subscribers in the U.S. for its digital audio service and "[a]dvertising revenues, or other monies received from sponsors, if any, attributable to advertising on channels other than those that use only incidental performances of sound recordings, less advertising agency and sales commissions." The term of the proposed direct licenses was for 3 years, automatically renewed for successive one-year periods, unless terminated by either party.

There were a number of other notable features of the proposed direct license. For example, the license was not simply a replacement for the statutory license for Sirius XM's

satellite radio service. Rather, Sirius XM was soliciting a license that would allow it to “enhance the service in several new and exciting ways,” that included providing subscribers the ability to record, fast forward, skip, rewind or pause programming, and cache programming for later playback. Moreover, the 7% blanket rate would apply to all “distributions of SXM’s service to business establishments, private residence (via cable and satellite television systems), and through Internet webcasts.” As Mr. Smith’s email noted, “these service platforms have been licensed separately through other statutory licenses also administered by SoundExchange.” In other words, Sirius XM was offering a direct license for all of the statutory uses of our sound recordings, along with non-statutory uses, at a rate less than the rate Sirius XM currently pays for its satellite radio service.

Mr. Smith explained Sirius XM’s position that in fact this lower royalty rate “is competitive with the 7.5% which SXM currently pays to SoundExchange under the statutory licenses for its satellite radio.” In fact, he claimed that the direct license “affords labels the opportunity of making more than they have made from SoundExchange under the statutory licenses.” He set forth three reasons for this belief. First, his email stated that while SoundExchange pays labels only 50% of the statutory license and pays the other 50% to artists, the “[r]oyalties paid by SXM under direct licenses will include both the so-called ‘featured artists share’ and the ‘non-featured artist share.’” The email explained that this would “afford[] labels the opportunity of making more than they have made from SoundExchange under statutory licenses.” Second, he claimed that there would be “potential additional royalties” from the multiple service platforms covered by the license. Third, he indicated that if we entered into direct licenses with Sirius XM, our recordings would be played more. Specifically, he stated that labels would earn more revenue under this proposal than they have made from SoundExchange

because of “SXM’s expectation that, over time, it will increase its reliance on the use of directly-licensed recordings (as opposed to non-directly-licensed recordings) in its programming.”

I did not respond to that proposal. Mr. Smith sent two follow-up emails, but our labels have not accepted MRI’s offer to direct license with Sirius XM. For us, not accepting the proposals was an easy decision. In the first place, we believe that the statutory royalty rate for satellite radio is likely to increase as a result of this proceeding, and we therefore have no interest in agreeing to a lower rate that encompasses other statutory platforms and additional non-statutory uses of our sound recordings. In addition, we have a vested interest in doing all that we can to assure that the world of satellite and internet radio continues to program its music to the extent it can based purely on the merits of the actual recordings and artists. However, MRI’s implication that in order to have our recordings played more by Sirius XM, we would need to enter into direct licenses, runs contrary to this spirit, and it feels like the beginning of a slippery slope where at the bottom of the hill is a world that looks very much like the commercial radio landscape, a world that is largely inaccessible to independent labels like us and one where very real, non-meritocratic obstacles exist. What is proposed by MRI could become a system in which Sirius XM acts as a gate-keeper and dictates whose recordings are played based not on the quality of recordings but on the deal terms of a license. We are opposed in principle to such a system.

### ***SoundExchange as the Sole Collective***

I also understand that MRI indicated that it may participate in this proceeding and that in the past, MRI’s affiliate Royalty Logic, Inc. (RLI), has petitioned to be recognized as a collective under the statutory license. We are opposed to the designation of MRI as a collective and support the designation of SoundExchange as the sole collective for the statutory royalties. In light of MRI’s explicit representation of Sirius XM in connection with the proposed direct

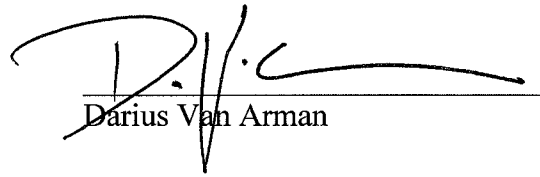
licenses that I discussed above, I believe that MRI has a fundamental conflict of interest in the context of the statutory license.

By contrast, I believe SoundExchange has earned the right to continue serving as the sole collective to collect and distribute statutory royalties for copyright owner and performers. SoundExchange is governed by and represents the interests both of recording companies – major and independent label alike – and performing artists. It is currently my belief that SoundExchange’s organizational structure ensures that the interests of all constituents are represented. It is also a non-profit organization, which ensures that the goal is to maximize royalties for recipients, and it currently has a good track record of advocating on behalf of copyright owners and performers.



I declare under penalty of perjury that the foregoing is true and correct.

Date: 11/28/2011

  
Darius Van Arman

**Exhibit Sponsored by Darius Van Arman**

<b>Exhibit No.</b>	<b>Description</b>
SX Ex. 101-DP	Email attaching Sirius XM Radio Inc.'s proposed sound recording catalog licenses for Dead Oceans, Jagjaguwar, and Secretly Canadian Records (Sept. 2011)

From: Grant Manship <grant@jagjaguwar.com>  
Subject: **Fwd: Sirius XM Radio - Dead Oceans, Jagjaguwar, Secretly Canadian - Direct Licensing Opportunity**  
Date: October 31, 2011 10:58:22 AM EDT  
To: Darius Van Arman <darius@jagjaguwar.com>  
3 Attachments, 99.9 KB

Hey D,

We're just sitting back and ignoring this for the time being correct?

Best Regards,

Grant Manship  
DEAD OCEANS / JAGJAGUWAR / SECRETLY CANADIAN  
1499 West 2nd Street  
Bloomington, IN 47403 USA  
E: [grant@jagjaguwar.com](mailto:grant@jagjaguwar.com)  
V: 812.961.2571 ext 238  
F: 888.678.0167

Any clearances contained in this email are "subject to contract". All Rights Reserved.

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Begin forwarded message:

**From:** Kathy Cook <[kathy@jagjaguwar.com](mailto:kathy@jagjaguwar.com)>  
**Date:** October 28, 2011 4:12:13 PM EDT  
**To:** Grant Manship <[grant@jagjaguwar.com](mailto:grant@jagjaguwar.com)>  
**Subject:** Fwd: Sirius XM Radio - Dead Oceans, Jagjaguwar, Secretly Canadian - Direct Licensing Opportunity

Begin forwarded message:

**From:** Theodora Karatzas <[theodora@secretlycanadian.com](mailto:theodora@secretlycanadian.com)>  
**Date:** October 28, 2011 4:08:56 PM GMT-04:00  
**To:** Kathy Cook <[kathy@jagjaguwar.com](mailto:kathy@jagjaguwar.com)>  
**Subject:** Fwd: Sirius XM Radio - Dead Oceans, Jagjaguwar, Secretly Canadian - Direct Licensing Opportunity

Begin forwarded message:

**From:** "Trent Smith" <[trent@musicreports.com](mailto:trent@musicreports.com)>  
**Date:** October 28, 2011 3:53:47 PM GMT-04:00  
**To:** <[info@deadoceans.com](mailto:info@deadoceans.com)>, <[info@jagjaguwar.com](mailto:info@jagjaguwar.com)>, <[info@secretlycanadian.com](mailto:info@secretlycanadian.com)>  
**Subject:** RE: Sirius XM Radio - Dead Oceans, Jagjaguwar, Secretly Canadian - Direct Licensing Opportunity

Checking in again on this still hoping we might be able to arrange an opportunity to discuss and hopefully move these licenses forward. Looking forward to hearing back from you with your availability.

Best regards,

Trent Smith  
Licensing Manager  
Music Reports, Inc.  
21122 Erwin St.  
Woodland Hills, CA 91367  
tel. 818 558-1400 x7014  
fax. 818 558-3474  
[Trent@MusicReports.com](mailto:Trent@MusicReports.com)

<<...>> <<...>> <<...>>

**From:** Trent Smith [<mailto:trent@musicreports.com>]  
**Sent:** Wednesday, October 12, 2011 2:52 PM  
**To:** '[info@deadoceans.com](mailto:info@deadoceans.com)'; '[info@jagjaguwar.com](mailto:info@jagjaguwar.com)'; '[info@secretlycanadian.com](mailto:info@secretlycanadian.com)'  
**Subject:** RE: Sirius XM Radio - Dead Oceans, Jagjaguwar, Secretly Canadian - Direct Licensing Opportunity

Checking in to see if you've had a chance yet to review these direct license proposals on behalf of Sirius XM and if so whether you have any questions or would like to discuss it further. SXM is eager to get these licenses in place so I'm looking forward to speaking with you at your earliest opportunity. If you'd like to set up a phone call please let me know what day and time you are most available.

Best regards,

Trent Smith  
Licensing Manager  
Music Reports, Inc.  
21122 Erwin St.  
Woodland Hills, CA 91367  
tel. 818 558-1400 x7014

**SX Ex. 101-DP**

fax. 818 558-3474  
[Trent@MusicReports.com](mailto:Trent@MusicReports.com)

<< File: Sirius XM\_Jagjaguar\_20110915.pdf >> << File: Sirius XM\_Dead Oceans\_20110915.pdf >> << File: Sirius XM\_Secretly Canadian Records\_20110915.pdf >>

**From:** Trent Smith [<mailto:trent@musicreports.com>]  
**Sent:** Thursday, September 15, 2011 3:26 PM  
**To:** '[info@deadoceans.com](mailto:info@deadoceans.com)'; '[info@jagjaguar.com](mailto:info@jagjaguar.com)'; '[info@secretlycanadian.com](mailto:info@secretlycanadian.com)'  
**Subject:** Sirius XM Radio - Dead Oceans, Jagjaguar, Secretly Canadian - Direct Licensing Opportunity

Dear Licensor(s):

Attached are proposals from Sirius XM Radio Inc. ("SXM") to license the recordings in your catalogs which had previously been sent to Bank Robber Music, but they recently informed us that they do not have authority to negotiate this type of license and I should contact you directly. Historically, SXM has licensed its service through certain statutory licenses in the U.S. Copyright Act and has paid SoundExchange the royalties under these statutory licenses. For several reasons which we believe you should find of interest, SXM is now seeking to license its service programming directly from record labels.

Under the attached license agreement, SXM will pay you directly (*i.e.*, not through SoundExchange) without any deductions. SXM will continue to rely on statutory licenses (and pay SoundExchange) for the use of recordings which are controlled by labels that do not grant direct licenses but, of course, these royalties will be subject to SoundExchange deductions before the royalties are distributed. Royalties paid by SXM under direct licenses will include both the so-called "featured artists share" and the "non-featured artist share," whereas SoundExchange, after deducting for its costs, pays only 50% of SXM royalties to its member labels, with the remaining half paid directly to the featured artists (45%) and unions (5%).

In addition, SXM intends to enhance the service in several new and exciting ways. These enhancements to the functionality of the service are described on Exhibit A of the attached license. The direct license covers all reproduction, distribution, and public performance rights necessary to operate the service, including both traditional programming functionality and these new service enhancements. In this way, labels entering into direct licenses stand to be included in, and benefit from, the full array of SXM service offerings.

In order to streamline and integrate its label licensing arrangements, the direct license also covers distribution of SXM's service to business establishments, private residences (via cable and satellite television systems), and through Internet webcasts. In the past, these service platforms have been licensed separately through other statutory licenses also administered by SoundExchange.

SXM is offering labels that enter into a direct license a royalty rate of 7% of gross revenue (with each label receiving its pro rata share of that amount based on its share of SXM transmissions), to be paid quarterly and reported on a per-play basis. We believe this rate is competitive with the 7.5% which SXM currently pays to SoundExchange under the statutory licenses for its satellite radio service and in fact affords labels the opportunity of making more than they have made from SoundExchange under statutory licenses. This is due to: (i) the potential additional royalties for the platforms described above; (ii) the absence of SoundExchange deductions from direct license royalties; and (iii) SXM's expectation that, over time, it will increase its reliance on the use of directly-licensed recordings (as opposed to non-directly-licensed recordings) in its programming.

Please contact us if you have any questions or comments regarding the license. Otherwise, please sign each of the licenses where indicated and return them to us at the above address for counter-signature by SXM.

Best regards,

Trent Smith  
Licensing Manager  
Music Reports, Inc.  
21122 Erwin St.  
Woodland Hills, CA 91367  
tel. 818 558-1400 x7014  
fax. 818 558-3474  
[Trent@MusicReports.com](mailto:Trent@MusicReports.com)

<< File: Sirius XM\_Secretly Canadian Records\_20110915.pdf >> << File: Sirius XM\_Dead Oceans\_20110915.pdf >> << File: Sirius XM\_Jagjaguar\_20110915.pdf >>



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[Sirius XM\\_De...pdf \(33.3 KB\)](#)



[Sirius XM\\_Se...pdf \(33.3 KB\)](#)

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Theodora Karatzas  
DEAD OCEANS / JAGJAGUAR / SECRETLY CANADIAN  
1499 W. 2nd St.  
Bloomington, IN 47403  
p: 812.961.2571 x-260  
f: 1.888.678.0167  
aim: karatzapopolis

Kathy Cook  
DEAD OCEANS / JAGJAGUAR / SECRETLY CANADIAN  
1499 W. 2nd St.  
Bloomington, IN 47403  
p: 812.961.2571 x-232  
f: 1.888.678.0167  
aim: [kkacook@mac.com](mailto:kkacook@mac.com)

## SOUND RECORDING CATALOG LICENSE

This agreement (the "Agreement") is entered into as of September 15, 2011 by and between SIRIUS XM RADIO INC., 1221 Avenue of the Americas, New York, New York, 10020 (collectively along with its Affiliates, "Licensee") and DEAD OCEANS, 1499 W. Second Street, Bloomington, IN 47403 (collectively along with its Affiliates, "Label") (each referred to as a "Party").

WHEREAS, Label owns and/or controls certain sound recordings during the Term hereof (collectively, "Label's Catalog"); and

WHEREAS, Licensee operates a digital audio radio service consisting of a wide variety of music and non-music (e.g., news, weather, sports and talk) programming (the "Service(s)") in the Territory; and

WHEREAS, Licensee desires to obtain from Label a blanket license covering Label's Catalog for the rights set forth herein, and Label is willing to grant such rights to Licensee;

NOW THEREFORE, the Parties hereto agree as follows:

### **1. Grant of Rights:**

(a) **Service Programming:** Label hereby grants to Licensee, solely in the Territory and solely during the Term, the right, through to the listener, to edit, reproduce, distribute, and publicly perform by means of digital audio transmission some or all of the sound recordings in Label's Catalog (the "Recording(s)") solely in connection with the Service (including, without limitation, as made available to subscribers via satellite radio, the Internet, multi-channel video programming distributors, and commercial business establishment services). The grant of rights will further extend to the public performance, reproduction, and distribution of Label's Catalog on or through devices that have the functional capability set forth on Exhibit A in connection with the Service. Label will be free to grant licenses to others.

(b) The Service operates pursuant to the statutory license at 17 U.S.C. §114(f) and 17 U.S.C. §112(e) (collectively, the "Statutory Licenses"). Label acknowledges, however, that this Agreement is a voluntary license, and Service may from time-to-time introduce product and programming features (artist-specific channels, for example) that extend beyond the Statutory Licenses. Label agrees that such features will be licensed hereunder, and that restrictions which apply under the Statutory Licenses will not apply in relation to Label's Catalog, including but not limited to: (i) the so-called "sound recording performance complement"; (ii) the publication of advance playlists; and (iii) the six-month limit on retention of ephemeral recordings.

**2. Royalties:**

(a) Service Royalty Pool: For each calendar quarter of the Term, Label's pro-rata share of royalties for the license granted hereunder to Licensee will be determined by multiplying the "Service Royalty Pool" for that quarter by a fraction, the numerator of which is the total number of "Transmissions" of identified Recordings from Label's Catalog in that quarter, and the denominator of which is the total number of "Transmissions" of all sound recordings performed on the Service in that quarter.

(i) As used herein: the "Service Royalty Pool" will mean seven percent (7%) of revenue recognized by the Licensee in accordance with U.S. GAAP from:

(A) Subscription revenue recognized by Licensee directly from subscribers in the Territory for the Service; and

(B) Advertising revenues, or other monies received from sponsors, if any, attributable to advertising on channels other than those that use only incidental performances of sound recordings, less advertising agency and sales commissions.

(ii) The Service Royalty Pool will exclude:

(A) Monies or other consideration attributable to the sale and/or license of equipment and/or other technology, including but not limited to bandwidth, sales of devices that receive the Service and any taxes, shipping and handling fees therefor;

(B) Royalties paid to Licensee for intellectual property rights;

(C) Monies or other consideration received by Licensee from the sale of phonorecords and digital phonorecord deliveries;

(D) Sales and use taxes, shipping and handling, credit card, invoice, and fulfillment service fees;

(E) Bad debt expense; and

(F) Revenues earned by Licensee for the provision of: (1) current and future data services (e.g., weather, traffic, destination information, messaging, sports scores, stock ticker information, extended program associated data, video and photographic images, and such other telematics and/or data services as may exist from time to time); (2) channels, programming, products and/or other services offered for a separate charge where such channels offer only incidental or occasional performances of sound recordings; (3) channels, programming, products and/or other services provided outside of the Territory; and (4) performances of sound recordings (and/or ephemeral recordings) that are exempt from any license requirement.

(iii) As used herein, a “Transmission” will mean each instance in which any portion of thirty seconds or more of a sound recording is publicly performed by digital audio transmission on the Sirius XM satellite radio service, but excluding performances of less than 30 seconds and performances that make no more than incidental use of sound recordings (including, without limitation, brief musical transitions in and out of commercials or program segments, brief performances during news, talk and sports programming, brief background performances during disk jockey announcements, brief performances during commercials of sixty seconds or less in duration, or brief performances during sporting or other public events).

(b) Methodology for Transmission Counts: Transmissions will be counted without respect to the number of subscribers receiving the performance of the sound recording. For example, without limitation, if a particular sound recording is transmitted on a particular channel or program only once during the reporting period, then there is one Transmission, and if the sound recording is transmitted ten (10) times on a particular channel or program during the reporting period, then there are ten (10) Transmissions.

(c) Direct, “All-In” Royalties: All royalties hereunder will be payable directly to Label and not to a "Collective" (as described in section 370.1(h) of Title 37, Code of Federal Regulations). Such royalties will be inclusive of, and Label will be responsible for paying, all amounts payable to all third parties in connection with the use of the Recordings in the Service as provided herein, including but not limited to: (i) any artist(s); (ii) any producer(s); (iii) any sample owner(s); and (iv) any union(s) (including but not limited to AFM and AFTRA). (For clarity, royalties payable to Label hereunder include, without limitation, both the so-called “copyright owner’s share(s)” and the so-called “performer’s share(s)” of royalties). Licensee will be responsible for obtaining any required licenses from the owners of the musical compositions embodied in the Recordings in connection with their use in the Service and making all payments in connection therewith.

### 3. Accounting:

(a) Quarterly Accountings: Commencing with the first calendar quarter accounting period, Licensee will calculate and pay any royalties due hereunder to Label quarterly, within forty-five (45) days after the end of each calendar quarter during the Term and provide accounting statements in connection therewith. All royalty payments will be in U.S. Dollars payable to Label and sent to the Label’s address as set forth above. If Label's pro rata share of royalties for a quarter is subsequently determined by Licensee to be less than the amount paid to Label for that quarter, then such payment will be deemed to be an overpayment. Label will reimburse Licensee on demand for any such overpayment. In the alternative, Licensee may deduct the amount of the overpayment from future amounts payable to Label under this or any other agreement. If Label's pro rata share of royalties for a quarter is subsequently determined by Licensee to be more than the amount paid to Label for that quarter, then such payment will be deemed to be an underpayment, and Licensee will pay the underpayment to Label during the accounting period after the accounting period in which the underpayment is determined by Licensee.

(b) Audits: Licensee will maintain books and records concerning the use of Label's Catalog in connection with the Service. Label will have the right, upon ninety (90) days notice to Licensee, to designate an independent certified public accountant on Label's behalf, who will not be retained on a contingency basis, to examine those books and records, at its sole cost and expense, solely for the purpose of verifying the accuracy of royalty accountings hereunder, only once per accounting statement, only once per year, and solely during Licensee's normal business hours. Prior to commencing any such examination, Licensee, Label, and Label's auditor will enter into a confidentiality agreement to protect the confidential information of Licensee which will be exposed during the course of the examination.

(c) Audit Restrictions: Each accounting statement hereunder will be binding and not subject to any objection unless Label notifies Licensee of that objection within two (2) years after the date such statement is required to be rendered hereunder (and each accounting statement will be deemed rendered on time unless Label notifies Licensee to the contrary not later than sixty (60) days after the date on which such statement is required to be rendered). Label may not commence legal action against Licensee in respect of any accounting (or failure to account) unless Label commences such legal action in accordance with Section 7(c) within two (2) years after the date the applicable accounting is required to be rendered, and the scope of any such legal action will be limited to a determination of the amount of royalties, if any, payable to Label for such accounting concerned. Label's sole and exclusive remedy in connection therewith will be the recovery of the royalties Label is adjudged to be owed hereunder, if any.

#### **4. Term And Territory:**

(a) Term: This Agreement will commence as of the date first written above and will continue for a period of three (3) years (the "Initial Period"), after which it will renew automatically for successive periods of one (1) year, each a "Renewal Period," unless terminated by either Party as provided herein. The Initial Period, together with all Renewal Periods, if any, will constitute the "Term." Either Party may terminate this Agreement, effective as of the end of the Initial Period or any Renewal Period, by notice to the other not less than ninety (90) days prior to the conclusion of the then-current period of the Agreement.

(b) Territory: The "Territory" of this Agreement will mean the United States, its territories, possessions, commonwealths and military bases.

#### **5. Representations and Warranties/Indemnity:**

(a) Mutual Ability: Each Party represents and warrants to the other that: (i) it has full right, power and authority to enter into this Agreement and to perform its obligations hereunder; (ii) this Agreement and its performance will not constitute a breach or default under any agreement to which such Party or its assets are bound; and



(iii) no consent from any party is required for the execution or performance of this Agreement.

(b) Non-Infringement: Label represents and warrants that the use of Label's Catalog in the Services as provided herein will not infringe the rights, including but not limited to intellectual property rights or contractual rights, of any third party.

(c) Indemnity: Each Party hereto will indemnify and hold the other Party harmless from any third party claim, cost, or expense (including, without limitation, legal costs and attorneys' fees) arising out of a breach by the other Party of such Party's representations or warranties hereunder.

(d) Availability/Catalog File:

(i) Label represents and warrants that the entirety of Label's Catalog will be available for use by Licensee as provided herein during the Term.

(ii) Label will promptly deliver to Licensee (or Licensee's agent) an MS Excel spreadsheet including, without limitation, complete metadata for Label's Catalog (a "Label Metadata Spreadsheet"), inclusive of the following fields: title; artist; album; ISRC; UPC; duration; Distributing Label; Sub-Label; Label Catalog Number; and Initial Release Date. Label represents and warrants that it will similarly deliver updated Label Metadata Spreadsheets to Licensee promptly, but in no event later than once per month, during the Term.

(iii) Licensee will identify the Recording(s) in textual data by reference to the title of the Recording(s) and the featured recording artist, in a manner to permit it to be displayed to subscribers.

## **6. Confidentiality:**

(a) Both Licensee and Label may disclose the existence of this Agreement, the identity of any and all Recordings subject to this Agreement, the scope of rights granted and the term and territory of the grant of rights.

(b) All other terms of this Agreement and information required to be disclosed pursuant to this Agreement will be considered confidential and may not be disclosed to third parties without the written consent of the other Party, provided, however, that:

(i) either Party may disclose such other terms of this Agreement to its employees, officers, directors, owners, agents, consultants, representatives, attorneys and auditors, in their capacity as such, on a need-to-know basis and subject to the confidentiality obligations set forth herein; and

(ii) either Party may disclose such other terms of this Agreement to third parties in the context of legal proceedings, government investigations, or compliance

with federal or state securities laws or regulations (provided reasonable prior notice of such disclosure, if permitted by law, is given to the other Party and, in each case, the disclosing Party takes all reasonable steps to prevent impermissible further disclosure by recipients authorized hereunder).

**7. Miscellaneous:**

(a) Definitions: (i) “Affiliates” will mean, with respect to any specified person or entity, any other person or entity that now or in the future, directly or indirectly, through one or more intermediaries, owns or controls, is owned or controlled by, or is under common ownership or control with, such specified person or entity. As used in this definition, the term “control” of a person or entity means the ownership of at least fifty percent (50%) of the voting equity of that person or entity or possessing the power to direct or cause the direction of the management of that person or entity. (ii) “Business Day” will mean any day other than: (A) a Saturday or Sunday; and (B) a day in which the banks in New York City are authorized or required to close.

(b) Addresses and Notices: All notices hereunder must be in writing and sent by certified mail, return receipt requested, to the address of the Party set forth above, in order to be effective. Notices so sent will be deemed to be effective when mailed (except for notice of change of address, which will be effective upon receipt).

(c) New York Law & Venue: This Agreement will be governed by and construed in accordance with the laws of the State of New York, and the New York courts, state and federal (located in the borough of Manhattan), will have exclusive jurisdiction and venue over any disputes arising out of this Agreement.

(d) Notice Of Breach: Neither Party will be deemed to be in breach of this Agreement unless the non-breaching party has notified the breaching Party of the breach with specificity, and the breaching Party has failed to cure the breach concerned within thirty (30) days.

(e) Merger/No Oral Amendments: This Agreement sets forth the entire understanding between the parties with respect to the subject matter hereof, and all prior and contemporaneous agreements are merged herein. No modification of this Agreement, or waiver of any right hereunder, will be binding on either Party unless memorialized in a writing signed by the Party to be charged with such amendment or waiver.

(f) Counterparts: This Agreement may be executed in counterparts, all of which, when taken together, will constitute one and the same document. Facsimile or scanned signatures hereto will be deemed original for all purposes.

(g) Assignment: This Agreement may not be assigned in whole or in part by either Party without the prior written consent of the other Party. This Agreement will be binding upon the Parties and their permitted successors and assigns and will be binding

on all Affiliates of Label (including, without limitation, when they cease to remain an Affiliate of Label).

(h) **LIMITATION OF LIABILITY.** IN NO EVENT WILL ANY PARTY BE LIABLE TO THE OTHER PARTY HEREUNDER FOR ANY AMOUNTS REPRESENTING ITS RESPECTIVE LOSS OF PROFITS, LOSS OF BUSINESS, INDIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, CONSEQUENTIAL, OR PUNITIVE DAMAGES (EVEN IF PREVIOUSLY APPRISED OF THE POSSIBILITY THEREOF) IN CONNECTION WITH OR ARISING FROM THIS AGREEMENT OR RELATED ACTS OR OMISSIONS. NO PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE SUBJECT MATTER HEREOF EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT.

(i) **Severability.** If any term of this Agreement is invalid, illegal or incapable of being enforced by any rule of law or public policy, all other terms of this Agreement will nevertheless remain in full force and effect.

**ACCEPTED AND AGREED:**

DEAD OCEANS

SIRIUS XM RADIO INC.

By: \_\_\_\_\_

By: \_\_\_\_\_

Name (printed): \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT A**  
**SERVICE ACCESS RULES**

1. The Service may be accessed in any of the following ways:
  - (a) Through devices and applications which are authorized by Licensee (“Authorized Devices/Applications”) which enable such subscribers to record a discrete number of individual sound recordings while listening to Service channels and retain such recordings only for so long as the user remains a subscriber;
  - (b) Through Authorized Devices/Applications which automatically record a discrete number of individual sound recordings from the Service (based on subscriber preferences) and present the recordings to the subscriber, on a non-interactive basis, as a customized “channel”;
  - (c) Through Authorized Devices/Applications which record subscriber-designated blocks of Service programming for later playback by the subscriber;
  - (d) Through Authorized Devices/Applications which enable subscribers to select and listen to blocks of pre-recorded Service programming;
  - (e) Through Authorized Devices/Applications where the Service programming concerned has been “cached” (i.e., copied locally) for access when Authorized Devices are not connected to the Service; and
  - (f) Through Authorized Devices/Applications which enable one to fast-forward; skip; rewind; pause; and/or resume Service programming.
2. Notwithstanding the foregoing, Licensee will not:
  - (a) Take affirmative steps to enable Service subscribers to transfer Recordings to media other than Authorized Devices/Applications; or
  - (b) Take affirmative steps to enable Service subscribers to access Recordings after their subscriptions have expired or been terminated for any reason (provided that if a subscriber subsequently restores its subscription, then access to such Recordings may be re-instated).
3. For the avoidance of doubt, this Exhibit A is intended solely to illustrate the rights granted in this voluntary Agreement; it is not intended to describe the rights or limitations of the Section 112 and 114 statutory licenses, or to indicate what service offerings/features are allowed, required, or prevented or otherwise encompassed under the statutory licenses.

## SOUND RECORDING CATALOG LICENSE

This agreement (the "Agreement") is entered into as of September 15, 2011 by and between SIRIUS XM RADIO INC., 1221 Avenue of the Americas, New York, New York, 10020 (collectively along with its Affiliates, "Licensee") and JAGJAGUWAR, 1499 W. Second Street, Bloomington, IN 47403 (collectively along with its Affiliates, "Label") (each referred to as a "Party").

WHEREAS, Label owns and/or controls certain sound recordings during the Term hereof (collectively, "Label's Catalog"); and

WHEREAS, Licensee operates a digital audio radio service consisting of a wide variety of music and non-music (e.g., news, weather, sports and talk) programming (the "Service(s)") in the Territory; and

WHEREAS, Licensee desires to obtain from Label a blanket license covering Label's Catalog for the rights set forth herein, and Label is willing to grant such rights to Licensee;

NOW THEREFORE, the Parties hereto agree as follows:

### **1. Grant of Rights:**

(a) **Service Programming:** Label hereby grants to Licensee, solely in the Territory and solely during the Term, the right, through to the listener, to edit, reproduce, distribute, and publicly perform by means of digital audio transmission some or all of the sound recordings in Label's Catalog (the "Recording(s)") solely in connection with the Service (including, without limitation, as made available to subscribers via satellite radio, the Internet, multi-channel video programming distributors, and commercial business establishment services). The grant of rights will further extend to the public performance, reproduction, and distribution of Label's Catalog on or through devices that have the functional capability set forth on Exhibit A in connection with the Service. Label will be free to grant licenses to others.

(b) The Service operates pursuant to the statutory license at 17 U.S.C. §114(f) and 17 U.S.C. §112(e) (collectively, the "Statutory Licenses"). Label acknowledges, however, that this Agreement is a voluntary license, and Service may from time-to-time introduce product and programming features (artist-specific channels, for example) that extend beyond the Statutory Licenses. Label agrees that such features will be licensed hereunder, and that restrictions which apply under the Statutory Licenses will not apply in relation to Label's Catalog, including but not limited to: (i) the so-called "sound recording performance complement"; (ii) the publication of advance playlists; and (iii) the six-month limit on retention of ephemeral recordings.

**2. Royalties:**

(a) Service Royalty Pool: For each calendar quarter of the Term, Label's pro-rata share of royalties for the license granted hereunder to Licensee will be determined by multiplying the "Service Royalty Pool" for that quarter by a fraction, the numerator of which is the total number of "Transmissions" of identified Recordings from Label's Catalog in that quarter, and the denominator of which is the total number of "Transmissions" of all sound recordings performed on the Service in that quarter.

(i) As used herein: the "Service Royalty Pool" will mean seven percent (7%) of revenue recognized by the Licensee in accordance with U.S. GAAP from:

(A) Subscription revenue recognized by Licensee directly from subscribers in the Territory for the Service; and

(B) Advertising revenues, or other monies received from sponsors, if any, attributable to advertising on channels other than those that use only incidental performances of sound recordings, less advertising agency and sales commissions.

(ii) The Service Royalty Pool will exclude:

(A) Monies or other consideration attributable to the sale and/or license of equipment and/or other technology, including but not limited to bandwidth, sales of devices that receive the Service and any taxes, shipping and handling fees therefor;

(B) Royalties paid to Licensee for intellectual property rights;

(C) Monies or other consideration received by Licensee from the sale of phonorecords and digital phonorecord deliveries;

(D) Sales and use taxes, shipping and handling, credit card, invoice, and fulfillment service fees;

(E) Bad debt expense; and

(F) Revenues earned by Licensee for the provision of: (1) current and future data services (e.g., weather, traffic, destination information, messaging, sports scores, stock ticker information, extended program associated data, video and photographic images, and such other telematics and/or data services as may exist from time to time); (2) channels, programming, products and/or other services offered for a separate charge where such channels offer only incidental or occasional performances of sound recordings; (3) channels, programming, products and/or other services provided outside of the Territory; and (4) performances of sound recordings (and/or ephemeral recordings) that are exempt from any license requirement.

(iii) As used herein, a “Transmission” will mean each instance in which any portion of thirty seconds or more of a sound recording is publicly performed by digital audio transmission on the Sirius XM satellite radio service, but excluding performances of less than 30 seconds and performances that make no more than incidental use of sound recordings (including, without limitation, brief musical transitions in and out of commercials or program segments, brief performances during news, talk and sports programming, brief background performances during disk jockey announcements, brief performances during commercials of sixty seconds or less in duration, or brief performances during sporting or other public events).

(b) Methodology for Transmission Counts: Transmissions will be counted without respect to the number of subscribers receiving the performance of the sound recording. For example, without limitation, if a particular sound recording is transmitted on a particular channel or program only once during the reporting period, then there is one Transmission, and if the sound recording is transmitted ten (10) times on a particular channel or program during the reporting period, then there are ten (10) Transmissions.

(c) Direct, “All-In” Royalties: All royalties hereunder will be payable directly to Label and not to a “Collective” (as described in section 370.1(h) of Title 37, Code of Federal Regulations). Such royalties will be inclusive of, and Label will be responsible for paying, all amounts payable to all third parties in connection with the use of the Recordings in the Service as provided herein, including but not limited to: (i) any artist(s); (ii) any producer(s); (iii) any sample owner(s); and (iv) any union(s) (including but not limited to AFM and AFTRA). (For clarity, royalties payable to Label hereunder include, without limitation, both the so-called “copyright owner’s share(s)” and the so-called “performer’s share(s)” of royalties). Licensee will be responsible for obtaining any required licenses from the owners of the musical compositions embodied in the Recordings in connection with their use in the Service and making all payments in connection therewith.

### 3. Accounting:

(a) Quarterly Accountings: Commencing with the first calendar quarter accounting period, Licensee will calculate and pay any royalties due hereunder to Label quarterly, within forty-five (45) days after the end of each calendar quarter during the Term and provide accounting statements in connection therewith. All royalty payments will be in U.S. Dollars payable to Label and sent to the Label’s address as set forth above. If Label’s pro rata share of royalties for a quarter is subsequently determined by Licensee to be less than the amount paid to Label for that quarter, then such payment will be deemed to be an overpayment. Label will reimburse Licensee on demand for any such overpayment. In the alternative, Licensee may deduct the amount of the overpayment from future amounts payable to Label under this or any other agreement. If Label’s pro rata share of royalties for a quarter is subsequently determined by Licensee to be more than the amount paid to Label for that quarter, then such payment will be deemed to be an underpayment, and Licensee will pay the underpayment to Label during the accounting period after the accounting period in which the underpayment is determined by Licensee.

(b) Audits: Licensee will maintain books and records concerning the use of Label's Catalog in connection with the Service. Label will have the right, upon ninety (90) days notice to Licensee, to designate an independent certified public accountant on Label's behalf, who will not be retained on a contingency basis, to examine those books and records, at its sole cost and expense, solely for the purpose of verifying the accuracy of royalty accountings hereunder, only once per accounting statement, only once per year, and solely during Licensee's normal business hours. Prior to commencing any such examination, Licensee, Label, and Label's auditor will enter into a confidentiality agreement to protect the confidential information of Licensee which will be exposed during the course of the examination.

(c) Audit Restrictions: Each accounting statement hereunder will be binding and not subject to any objection unless Label notifies Licensee of that objection within two (2) years after the date such statement is required to be rendered hereunder (and each accounting statement will be deemed rendered on time unless Label notifies Licensee to the contrary not later than sixty (60) days after the date on which such statement is required to be rendered). Label may not commence legal action against Licensee in respect of any accounting (or failure to account) unless Label commences such legal action in accordance with Section 7(c) within two (2) years after the date the applicable accounting is required to be rendered, and the scope of any such legal action will be limited to a determination of the amount of royalties, if any, payable to Label for such accounting concerned. Label's sole and exclusive remedy in connection therewith will be the recovery of the royalties Label is adjudged to be owed hereunder, if any.

#### **4. Term And Territory:**

(a) Term: This Agreement will commence as of the date first written above and will continue for a period of three (3) years (the "Initial Period"), after which it will renew automatically for successive periods of one (1) year, each a "Renewal Period," unless terminated by either Party as provided herein. The Initial Period, together with all Renewal Periods, if any, will constitute the "Term." Either Party may terminate this Agreement, effective as of the end of the Initial Period or any Renewal Period, by notice to the other not less than ninety (90) days prior to the conclusion of the then-current period of the Agreement.

(b) Territory: The "Territory" of this Agreement will mean the United States, its territories, possessions, commonwealths and military bases.

#### **5. Representations and Warranties/Indemnity:**

(a) Mutual Ability: Each Party represents and warrants to the other that: (i) it has full right, power and authority to enter into this Agreement and to perform its obligations hereunder; (ii) this Agreement and its performance will not constitute a breach or default under any agreement to which such Party or its assets are bound; and



(iii) no consent from any party is required for the execution or performance of this Agreement.

(b) Non-Infringement: Label represents and warrants that the use of Label's Catalog in the Services as provided herein will not infringe the rights, including but not limited to intellectual property rights or contractual rights, of any third party.

(c) Indemnity: Each Party hereto will indemnify and hold the other Party harmless from any third party claim, cost, or expense (including, without limitation, legal costs and attorneys' fees) arising out of a breach by the other Party of such Party's representations or warranties hereunder.

(d) Availability/Catalog File:

(i) Label represents and warrants that the entirety of Label's Catalog will be available for use by Licensee as provided herein during the Term.

(ii) Label will promptly deliver to Licensee (or Licensee's agent) an MS Excel spreadsheet including, without limitation, complete metadata for Label's Catalog (a "Label Metadata Spreadsheet"), inclusive of the following fields: title; artist; album; ISRC; UPC; duration; Distributing Label; Sub-Label; Label Catalog Number; and Initial Release Date. Label represents and warrants that it will similarly deliver updated Label Metadata Spreadsheets to Licensee promptly, but in no event later than once per month, during the Term.

(iii) Licensee will identify the Recording(s) in textual data by reference to the title of the Recording(s) and the featured recording artist, in a manner to permit it to be displayed to subscribers.

## **6. Confidentiality:**

(a) Both Licensee and Label may disclose the existence of this Agreement, the identity of any and all Recordings subject to this Agreement, the scope of rights granted and the term and territory of the grant of rights.

(b) All other terms of this Agreement and information required to be disclosed pursuant to this Agreement will be considered confidential and may not be disclosed to third parties without the written consent of the other Party, provided, however, that:

(i) either Party may disclose such other terms of this Agreement to its employees, officers, directors, owners, agents, consultants, representatives, attorneys and auditors, in their capacity as such, on a need-to-know basis and subject to the confidentiality obligations set forth herein; and

(ii) either Party may disclose such other terms of this Agreement to third parties in the context of legal proceedings, government investigations, or compliance

with federal or state securities laws or regulations (provided reasonable prior notice of such disclosure, if permitted by law, is given to the other Party and, in each case, the disclosing Party takes all reasonable steps to prevent impermissible further disclosure by recipients authorized hereunder).

7. Miscellaneous:

(a) Definitions: (i) “Affiliates” will mean, with respect to any specified person or entity, any other person or entity that now or in the future, directly or indirectly, through one or more intermediaries, owns or controls, is owned or controlled by, or is under common ownership or control with, such specified person or entity. As used in this definition, the term “control” of a person or entity means the ownership of at least fifty percent (50%) of the voting equity of that person or entity or possessing the power to direct or cause the direction of the management of that person or entity. (ii) “Business Day” will mean any day other than: (A) a Saturday or Sunday; and (B) a day in which the banks in New York City are authorized or required to close.

(b) Addresses and Notices: All notices hereunder must be in writing and sent by certified mail, return receipt requested, to the address of the Party set forth above, in order to be effective. Notices so sent will be deemed to be effective when mailed (except for notice of change of address, which will be effective upon receipt).

(c) New York Law & Venue: This Agreement will be governed by and construed in accordance with the laws of the State of New York, and the New York courts, state and federal (located in the borough of Manhattan), will have exclusive jurisdiction and venue over any disputes arising out of this Agreement.

(d) Notice Of Breach: Neither Party will be deemed to be in breach of this Agreement unless the non-breaching party has notified the breaching Party of the breach with specificity, and the breaching Party has failed to cure the breach concerned within thirty (30) days.

(e) Merger/No Oral Amendments: This Agreement sets forth the entire understanding between the parties with respect to the subject matter hereof, and all prior and contemporaneous agreements are merged herein. No modification of this Agreement, or waiver of any right hereunder, will be binding on either Party unless memorialized in a writing signed by the Party to be charged with such amendment or waiver.

(f) Counterparts: This Agreement may be executed in counterparts, all of which, when taken together, will constitute one and the same document. Facsimile or scanned signatures hereto will be deemed original for all purposes.

(g) Assignment: This Agreement may not be assigned in whole or in part by either Party without the prior written consent of the other Party. This Agreement will be binding upon the Parties and their permitted successors and assigns and will be binding

on all Affiliates of Label (including, without limitation, when they cease to remain an Affiliate of Label).

(h) **LIMITATION OF LIABILITY.** IN NO EVENT WILL ANY PARTY BE LIABLE TO THE OTHER PARTY HEREUNDER FOR ANY AMOUNTS REPRESENTING ITS RESPECTIVE LOSS OF PROFITS, LOSS OF BUSINESS, INDIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, CONSEQUENTIAL, OR PUNITIVE DAMAGES (EVEN IF PREVIOUSLY APPRISED OF THE POSSIBILITY THEREOF) IN CONNECTION WITH OR ARISING FROM THIS AGREEMENT OR RELATED ACTS OR OMISSIONS. NO PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE SUBJECT MATTER HEREOF EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT.

(i) **Severability.** If any term of this Agreement is invalid, illegal or incapable of being enforced by any rule of law or public policy, all other terms of this Agreement will nevertheless remain in full force and effect.

**ACCEPTED AND AGREED:**

JAGJAGUWAR

SIRIUS XM RADIO INC.

By: \_\_\_\_\_

By: \_\_\_\_\_

Name (printed): \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT A**  
**SERVICE ACCESS RULES**

1. The Service may be accessed in any of the following ways:
  - (a) Through devices and applications which are authorized by Licensee (“Authorized Devices/Applications”) which enable such subscribers to record a discrete number of individual sound recordings while listening to Service channels and retain such recordings only for so long as the user remains a subscriber;
  - (b) Through Authorized Devices/Applications which automatically record a discrete number of individual sound recordings from the Service (based on subscriber preferences) and present the recordings to the subscriber, on a non-interactive basis, as a customized “channel”;
  - (c) Through Authorized Devices/Applications which record subscriber-designated blocks of Service programming for later playback by the subscriber;
  - (d) Through Authorized Devices/Applications which enable subscribers to select and listen to blocks of pre-recorded Service programming;
  - (e) Through Authorized Devices/Applications where the Service programming concerned has been “cached” (i.e., copied locally) for access when Authorized Devices are not connected to the Service; and
  - (f) Through Authorized Devices/Applications which enable one to fast-forward; skip; rewind; pause; and/or resume Service programming.
2. Notwithstanding the foregoing, Licensee will not:
  - (a) Take affirmative steps to enable Service subscribers to transfer Recordings to media other than Authorized Devices/Applications; or
  - (b) Take affirmative steps to enable Service subscribers to access Recordings after their subscriptions have expired or been terminated for any reason (provided that if a subscriber subsequently restores its subscription, then access to such Recordings may be re-instated).
3. For the avoidance of doubt, this Exhibit A is intended solely to illustrate the rights granted in this voluntary Agreement; it is not intended to describe the rights or limitations of the Section 112 and 114 statutory licenses, or to indicate what service offerings/features are allowed, required, or prevented or otherwise encompassed under the statutory licenses.

## SOUND RECORDING CATALOG LICENSE

This agreement (the "Agreement") is entered into as of September 15, 2011 by and between SIRIUS XM RADIO INC., 1221 Avenue of the Americas, New York, New York, 10020 (collectively along with its Affiliates, "Licensee") and SECRETLY CANADIAN RECORDS, 1499 W. Second Street, Bloomington, IN 47403 (collectively along with its Affiliates, "Label") (each referred to as a "Party").

WHEREAS, Label owns and/or controls certain sound recordings during the Term hereof (collectively, "Label's Catalog"); and

WHEREAS, Licensee operates a digital audio radio service consisting of a wide variety of music and non-music (e.g., news, weather, sports and talk) programming (the "Service(s)") in the Territory; and

WHEREAS, Licensee desires to obtain from Label a blanket license covering Label's Catalog for the rights set forth herein, and Label is willing to grant such rights to Licensee;

NOW THEREFORE, the Parties hereto agree as follows:

### **1. Grant of Rights:**

(a) **Service Programming:** Label hereby grants to Licensee, solely in the Territory and solely during the Term, the right, through to the listener, to edit, reproduce, distribute, and publicly perform by means of digital audio transmission some or all of the sound recordings in Label's Catalog (the "Recording(s)") solely in connection with the Service (including, without limitation, as made available to subscribers via satellite radio, the Internet, multi-channel video programming distributors, and commercial business establishment services). The grant of rights will further extend to the public performance, reproduction, and distribution of Label's Catalog on or through devices that have the functional capability set forth on Exhibit A in connection with the Service. Label will be free to grant licenses to others.

(b) The Service operates pursuant to the statutory license at 17 U.S.C. §114(f) and 17 U.S.C. §112(e) (collectively, the "Statutory Licenses"). Label acknowledges, however, that this Agreement is a voluntary license, and Service may from time-to-time introduce product and programming features (artist-specific channels, for example) that extend beyond the Statutory Licenses. Label agrees that such features will be licensed hereunder, and that restrictions which apply under the Statutory Licenses will not apply in relation to Label's Catalog, including but not limited to: (i) the so-called "sound recording performance complement"; (ii) the publication of advance playlists; and (iii) the six-month limit on retention of ephemeral recordings.

## 2. Royalties:

(a) Service Royalty Pool: For each calendar quarter of the Term, Label's pro-rata share of royalties for the license granted hereunder to Licensee will be determined by multiplying the "Service Royalty Pool" for that quarter by a fraction, the numerator of which is the total number of "Transmissions" of identified Recordings from Label's Catalog in that quarter, and the denominator of which is the total number of "Transmissions" of all sound recordings performed on the Service in that quarter.

(i) As used herein: the "Service Royalty Pool" will mean seven percent (7%) of revenue recognized by the Licensee in accordance with U.S. GAAP from:

(A) Subscription revenue recognized by Licensee directly from subscribers in the Territory for the Service; and

(B) Advertising revenues, or other monies received from sponsors, if any, attributable to advertising on channels other than those that use only incidental performances of sound recordings, less advertising agency and sales commissions.

(ii) The Service Royalty Pool will exclude:

(A) Monies or other consideration attributable to the sale and/or license of equipment and/or other technology, including but not limited to bandwidth, sales of devices that receive the Service and any taxes, shipping and handling fees therefor;

(B) Royalties paid to Licensee for intellectual property rights;

(C) Monies or other consideration received by Licensee from the sale of phonorecords and digital phonorecord deliveries;

(D) Sales and use taxes, shipping and handling, credit card, invoice, and fulfillment service fees;

(E) Bad debt expense; and

(F) Revenues earned by Licensee for the provision of: (1) current and future data services (e.g., weather, traffic, destination information, messaging, sports scores, stock ticker information, extended program associated data, video and photographic images, and such other telematics and/or data services as may exist from time to time); (2) channels, programming, products and/or other services offered for a separate charge where such channels offer only incidental or occasional performances of sound recordings; (3) channels, programming, products and/or other services provided outside of the Territory; and (4) performances of sound recordings (and/or ephemeral recordings) that are exempt from any license requirement.

(iii) As used herein, a “Transmission” will mean each instance in which any portion of thirty seconds or more of a sound recording is publicly performed by digital audio transmission on the Sirius XM satellite radio service, but excluding performances of less than 30 seconds and performances that make no more than incidental use of sound recordings (including, without limitation, brief musical transitions in and out of commercials or program segments, brief performances during news, talk and sports programming, brief background performances during disk jockey announcements, brief performances during commercials of sixty seconds or less in duration, or brief performances during sporting or other public events).

(b) Methodology for Transmission Counts: Transmissions will be counted without respect to the number of subscribers receiving the performance of the sound recording. For example, without limitation, if a particular sound recording is transmitted on a particular channel or program only once during the reporting period, then there is one Transmission, and if the sound recording is transmitted ten (10) times on a particular channel or program during the reporting period, then there are ten (10) Transmissions.

(c) Direct, “All-In” Royalties: All royalties hereunder will be payable directly to Label and not to a “Collective” (as described in section 370.1(h) of Title 37, Code of Federal Regulations). Such royalties will be inclusive of, and Label will be responsible for paying, all amounts payable to all third parties in connection with the use of the Recordings in the Service as provided herein, including but not limited to: (i) any artist(s); (ii) any producer(s); (iii) any sample owner(s); and (iv) any union(s) (including but not limited to AFM and AFTRA). (For clarity, royalties payable to Label hereunder include, without limitation, both the so-called “copyright owner’s share(s)” and the so-called “performer’s share(s)” of royalties). Licensee will be responsible for obtaining any required licenses from the owners of the musical compositions embodied in the Recordings in connection with their use in the Service and making all payments in connection therewith.

### 3. Accounting:

(a) Quarterly Accountings: Commencing with the first calendar quarter accounting period, Licensee will calculate and pay any royalties due hereunder to Label quarterly, within forty-five (45) days after the end of each calendar quarter during the Term and provide accounting statements in connection therewith. All royalty payments will be in U.S. Dollars payable to Label and sent to the Label’s address as set forth above. If Label’s pro rata share of royalties for a quarter is subsequently determined by Licensee to be less than the amount paid to Label for that quarter, then such payment will be deemed to be an overpayment. Label will reimburse Licensee on demand for any such overpayment. In the alternative, Licensee may deduct the amount of the overpayment from future amounts payable to Label under this or any other agreement. If Label’s pro rata share of royalties for a quarter is subsequently determined by Licensee to be more than the amount paid to Label for that quarter, then such payment will be deemed to be an underpayment, and Licensee will pay the underpayment to Label during the accounting period after the accounting period in which the underpayment is determined by Licensee.

(b) Audits: Licensee will maintain books and records concerning the use of Label's Catalog in connection with the Service. Label will have the right, upon ninety (90) days notice to Licensee, to designate an independent certified public accountant on Label's behalf, who will not be retained on a contingency basis, to examine those books and records, at its sole cost and expense, solely for the purpose of verifying the accuracy of royalty accountings hereunder, only once per accounting statement, only once per year, and solely during Licensee's normal business hours. Prior to commencing any such examination, Licensee, Label, and Label's auditor will enter into a confidentiality agreement to protect the confidential information of Licensee which will be exposed during the course of the examination.

(c) Audit Restrictions: Each accounting statement hereunder will be binding and not subject to any objection unless Label notifies Licensee of that objection within two (2) years after the date such statement is required to be rendered hereunder (and each accounting statement will be deemed rendered on time unless Label notifies Licensee to the contrary not later than sixty (60) days after the date on which such statement is required to be rendered). Label may not commence legal action against Licensee in respect of any accounting (or failure to account) unless Label commences such legal action in accordance with Section 7(c) within two (2) years after the date the applicable accounting is required to be rendered, and the scope of any such legal action will be limited to a determination of the amount of royalties, if any, payable to Label for such accounting concerned. Label's sole and exclusive remedy in connection therewith will be the recovery of the royalties Label is adjudged to be owed hereunder, if any.

#### **4. Term And Territory:**

(a) Term: This Agreement will commence as of the date first written above and will continue for a period of three (3) years (the "Initial Period"), after which it will renew automatically for successive periods of one (1) year, each a "Renewal Period," unless terminated by either Party as provided herein. The Initial Period, together with all Renewal Periods, if any, will constitute the "Term." Either Party may terminate this Agreement, effective as of the end of the Initial Period or any Renewal Period, by notice to the other not less than ninety (90) days prior to the conclusion of the then-current period of the Agreement.

(b) Territory: The "Territory" of this Agreement will mean the United States, its territories, possessions, commonwealths and military bases.

#### **5. Representations and Warranties/Indemnity:**

(a) Mutual Ability: Each Party represents and warrants to the other that: (i) it has full right, power and authority to enter into this Agreement and to perform its obligations hereunder; (ii) this Agreement and its performance will not constitute a breach or default under any agreement to which such Party or its assets are bound; and



(iii) no consent from any party is required for the execution or performance of this Agreement.

(b) Non-Infringement: Label represents and warrants that the use of Label's Catalog in the Services as provided herein will not infringe the rights, including but not limited to intellectual property rights or contractual rights, of any third party.

(c) Indemnity: Each Party hereto will indemnify and hold the other Party harmless from any third party claim, cost, or expense (including, without limitation, legal costs and attorneys' fees) arising out of a breach by the other Party of such Party's representations or warranties hereunder.

(d) Availability/Catalog File:

(i) Label represents and warrants that the entirety of Label's Catalog will be available for use by Licensee as provided herein during the Term.

(ii) Label will promptly deliver to Licensee (or Licensee's agent) an MS Excel spreadsheet including, without limitation, complete metadata for Label's Catalog (a "Label Metadata Spreadsheet"), inclusive of the following fields: title; artist; album; ISRC; UPC; duration; Distributing Label; Sub-Label; Label Catalog Number; and Initial Release Date. Label represents and warrants that it will similarly deliver updated Label Metadata Spreadsheets to Licensee promptly, but in no event later than once per month, during the Term.

(iii) Licensee will identify the Recording(s) in textual data by reference to the title of the Recording(s) and the featured recording artist, in a manner to permit it to be displayed to subscribers.

## **6. Confidentiality:**

(a) Both Licensee and Label may disclose the existence of this Agreement, the identity of any and all Recordings subject to this Agreement, the scope of rights granted and the term and territory of the grant of rights.

(b) All other terms of this Agreement and information required to be disclosed pursuant to this Agreement will be considered confidential and may not be disclosed to third parties without the written consent of the other Party, provided, however, that:

(i) either Party may disclose such other terms of this Agreement to its employees, officers, directors, owners, agents, consultants, representatives, attorneys and auditors, in their capacity as such, on a need-to-know basis and subject to the confidentiality obligations set forth herein; and

(ii) either Party may disclose such other terms of this Agreement to third parties in the context of legal proceedings, government investigations, or compliance

with federal or state securities laws or regulations (provided reasonable prior notice of such disclosure, if permitted by law, is given to the other Party and, in each case, the disclosing Party takes all reasonable steps to prevent impermissible further disclosure by recipients authorized hereunder).

**7. Miscellaneous:**

(a) Definitions: (i) “Affiliates” will mean, with respect to any specified person or entity, any other person or entity that now or in the future, directly or indirectly, through one or more intermediaries, owns or controls, is owned or controlled by, or is under common ownership or control with, such specified person or entity. As used in this definition, the term “control” of a person or entity means the ownership of at least fifty percent (50%) of the voting equity of that person or entity or possessing the power to direct or cause the direction of the management of that person or entity. (ii) “Business Day” will mean any day other than: (A) a Saturday or Sunday; and (B) a day in which the banks in New York City are authorized or required to close.

(b) Addresses and Notices: All notices hereunder must be in writing and sent by certified mail, return receipt requested, to the address of the Party set forth above, in order to be effective. Notices so sent will be deemed to be effective when mailed (except for notice of change of address, which will be effective upon receipt).

(c) New York Law & Venue: This Agreement will be governed by and construed in accordance with the laws of the State of New York, and the New York courts, state and federal (located in the borough of Manhattan), will have exclusive jurisdiction and venue over any disputes arising out of this Agreement.

(d) Notice Of Breach: Neither Party will be deemed to be in breach of this Agreement unless the non-breaching party has notified the breaching Party of the breach with specificity, and the breaching Party has failed to cure the breach concerned within thirty (30) days.

(e) Merger/No Oral Amendments: This Agreement sets forth the entire understanding between the parties with respect to the subject matter hereof, and all prior and contemporaneous agreements are merged herein. No modification of this Agreement, or waiver of any right hereunder, will be binding on either Party unless memorialized in a writing signed by the Party to be charged with such amendment or waiver.

(f) Counterparts: This Agreement may be executed in counterparts, all of which, when taken together, will constitute one and the same document. Facsimile or scanned signatures hereto will be deemed original for all purposes.

(g) Assignment: This Agreement may not be assigned in whole or in part by either Party without the prior written consent of the other Party. This Agreement will be binding upon the Parties and their permitted successors and assigns and will be binding

on all Affiliates of Label (including, without limitation, when they cease to remain an Affiliate of Label).

(h) **LIMITATION OF LIABILITY.** IN NO EVENT WILL ANY PARTY BE LIABLE TO THE OTHER PARTY HEREUNDER FOR ANY AMOUNTS REPRESENTING ITS RESPECTIVE LOSS OF PROFITS, LOSS OF BUSINESS, INDIRECT, SPECIAL, INCIDENTAL, EXEMPLARY, CONSEQUENTIAL, OR PUNITIVE DAMAGES (EVEN IF PREVIOUSLY APPRISED OF THE POSSIBILITY THEREOF) IN CONNECTION WITH OR ARISING FROM THIS AGREEMENT OR RELATED ACTS OR OMISSIONS. NO PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE SUBJECT MATTER HEREOF EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT.

(i) **Severability.** If any term of this Agreement is invalid, illegal or incapable of being enforced by any rule of law or public policy, all other terms of this Agreement will nevertheless remain in full force and effect.

**ACCEPTED AND AGREED:**

SECRETLY CANADIAN RECORDS

SIRIUS XM RADIO INC.

By: \_\_\_\_\_

By: \_\_\_\_\_

Name (printed): \_\_\_\_\_

Name (printed): \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

**EXHIBIT A**  
**SERVICE ACCESS RULES**

1. The Service may be accessed in any of the following ways:
  - (a) Through devices and applications which are authorized by Licensee (“Authorized Devices/Applications”) which enable such subscribers to record a discrete number of individual sound recordings while listening to Service channels and retain such recordings only for so long as the user remains a subscriber;
  - (b) Through Authorized Devices/Applications which automatically record a discrete number of individual sound recordings from the Service (based on subscriber preferences) and present the recordings to the subscriber, on a non-interactive basis, as a customized “channel”;
  - (c) Through Authorized Devices/Applications which record subscriber-designated blocks of Service programming for later playback by the subscriber;
  - (d) Through Authorized Devices/Applications which enable subscribers to select and listen to blocks of pre-recorded Service programming;
  - (e) Through Authorized Devices/Applications where the Service programming concerned has been “cached” (i.e., copied locally) for access when Authorized Devices are not connected to the Service; and
  - (f) Through Authorized Devices/Applications which enable one to fast-forward; skip; rewind; pause; and/or resume Service programming.
2. Notwithstanding the foregoing, Licensee will not:
  - (a) Take affirmative steps to enable Service subscribers to transfer Recordings to media other than Authorized Devices/Applications; or
  - (b) Take affirmative steps to enable Service subscribers to access Recordings after their subscriptions have expired or been terminated for any reason (provided that if a subscriber subsequently restores its subscription, then access to such Recordings may be re-instated).
3. For the avoidance of doubt, this Exhibit A is intended solely to illustrate the rights granted in this voluntary Agreement; it is not intended to describe the rights or limitations of the Section 112 and 114 statutory licenses, or to indicate what service offerings/features are allowed, required, or prevented or otherwise encompassed under the statutory licenses.