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3	Mark Eisenberg	Co-Founder and Chief Operating Officer of LatticeWorks Media
4	David Pearlman	President, Pearlman Advisors, LLC
5	Itamar Simonson	Sebastian S. Kresge Professor of Marketing at the Graduate School of Business, Stanford University
6	George Ford	President, Applied Economic Studies
7	Jonathan Bender	Chief Operating Officer of SoundExchange, Inc.
8	Aaron Harrison	Vice President, Business & Legal Affairs, Global Digital Business, UMG Recordings, Inc.
9	Michael Powers	President, Yellow Dog Records

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

REBUTTAL 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 Assignment

1. My name is Janusz A. Ordover. During the direct phase of this proceeding, I submitted written testimony,[1] provided testimony at deposition,[2] and testified at a hearing held before the Copyright Royalty Judges.[3]

2. I have been asked by counsel for SoundExchange to review the written direct testimony prepared by Dr. Roger Noll[4] on behalf of Sirius XM, as well as Dr. Noll's deposition[5] and hearing testimony provided during the direct phase of this proceeding.[6] My examination of Dr. Noll's testimony assesses whether the benchmark rates put forward by Dr. Noll represent economically reasonable estimates of the rates that likely would obtain through voluntary negotiations between Sirius XM and individual record labels, *i.e.*, through negotiations occurring outside the regulatory framework that governs the determination of rates to be paid by Sirius XM for access to sound recording rights.

II. Summary of Conclusions

3. In developing the conclusions that are summarized below and discussed in greater detail in the main body of this report, I relied on my experience in assessing pricing issues generally, as well as pricing of access to content across

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[1] Third Corrected and Amended Written Direct Testimony of Janusz Ordover, June 13, 2012 (SX Trial Ex. 74).

[2] Deposition of Janusz Ordover, March 19, 2012.

[3] Direct Hearing Transcript, Vols. 8-9, June 14-15, 2012.

[4] Revised Amended Written Direct Testimony of Roger G. Noll, May 17, 2012 ("Noll Report") (SXM Dir. Trial Ex. 1).

[5] Deposition of Roger Noll, March 8, 2012 ("Noll Deposition").

[6] Direct Hearing Transcript, Vols. 1-2, June 5-6, 2012 ("Noll Hearing Testimony").

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 the written and deposition testimony of Professors Noll and Hauser, the deposition testimony of Messrs. Frear and Gertz, the transcripts of the direct hearing, the written rebuttal testimony of Mark Eisenberg, the written rebuttal testimony of Professor Itamar Simonson, the written rebuttal testimony of David Pearlman, and various materials produced by Sirius XM.

4. My overarching conclusion is that neither of the benchmark approaches put forward by Dr. Noll represents an economically reasonable basis on which to determine the licensing rates Sirius XM should pay for access to sound recording performance rights for its satellite radio service.

5. Dr. Noll's first, and preferred, approach builds from a set of direct licenses negotiated between Sirius XM and independent record labels that is wholly unsuitable as a benchmark in this proceeding. The most glaring deficiency of Dr. Noll's first approach is his assertion that licensing rates rejected by the overwhelming majority of record labels with whom Sirius XM negotiated should nevertheless be applied to the recording industry at-large. In defense, Dr. Noll claims that most record labels declined Sirius XM's overtures because the procedures governing this proceeding tilt in favor of the record companies, *i.e.*, they reasonably can expect the Judges to set rates at above-competitive levels. I find nothing in the Judges' prior analyses and opinions to support such a view, and indeed, the presence of the fourth statutory factor directly contradicts this view insofar as its implementation would depress rates to below-competitive levels to account for Sirius XM's supposed financial fragility. Finally, the direct license agreements are anomalous in at least a couple of respects, namely that they involve labels with minuscule exposure on Sirius XM, and that many contain provisions (explicit and otherwise) that offer inducements for labels to accept lower rates.

6. Dr. Noll's second approach flows from the premise that non-interactive streaming services are highly comparable to the music content distributed by Sirius XM, and therefore can be used as a benchmark without the need for any adjustments. This assumption is patently flawed. The substantial difference in price between Sirius XM's (hypothetical music-only) service and non-interactive services like Pandora and Last.fm, coupled with Sirius XM's substantially larger subscriber base, suggests that a number of adjustments would be necessary to use the non-interactive services as a benchmark for Sirius XM. Moreover, Sirius XM executives have acknowledged that although Sirius XM competes with non-interactive services today, that competition will not have a material impact on Sirius XM's performance unless and until automobile manufacturers elect to integrate the required functionality into their vehicles.[7]

7. In terms of implementation, Dr. Noll's second approach suffers from a number of serious flaws. First, his initial benchmark rates are obtained from four agreements with a single service – a sample size so small as to cast immediate doubt on its utility. Second, the sample size issue is compounded when Dr. Noll attempts to account for the per-play mechanism in his chosen agreements, insofar as he relies on a single month of usage data from a single service. Besides the inherent difficulty in drawing inferences from a single data point, the figure adopted by Dr. Noll varies substantially from other estimates that can be derived using information from Pandora and Sirius XM. And finally, all of the methods used by Dr. Noll to gauge the retail price of a hypothetical music-only satellite radio service are fundamentally flawed and generate estimates that substantially undervalue Sirius XM's access to music content.

[7] SIRI - Sirius Satellite Radio at Morgan Stanley Technology, Media & Telecom Conference," Thomson Reuters StreetEvents, February 28, 2012, p. 11 (Sirius XM CFO David Frear stating, in the context of competition between Sirius XM and internet radio in the car, that "if there is going to be a disruptive technology impact to our business, I think we would have seen it already") (SX Ex. 223-RP).

III. Dr. Noll's First Benchmark: Sirius XM Direct Licenses

A. Introduction

8. Dr. Noll's first approach relies on a set of license agreements negotiated directly between Sirius XM and independent record labels. As of the submission date of Dr. Noll's initial direct written testimony, November 29, 2011, Sirius XM had successfully negotiated licenses with 62 independent labels.[8] Collectively, the catalogs of these labels span a range of musical genres including Folk, Electronic, Pop, R&B, Punk, Alternative, Rock, Christian, Jazz, Gospel, Children's, and Hip-Hop.[9] Despite the range of genres represented, the catalogs of these 62 labels, taken together, historically have accounted for a *de minimis* portion of total airplay across Sirius XM's music channels – roughly between [one and two percent].[10]

9. In Dr. Noll's opinion, Sirius XM's direct licenses with independent record labels represent "the most appropriate benchmarks for setting a statutory rate for SDARS."[11] He advances several arguments in support for this view:[12]

a. The direct licenses include sound recording performance rights, which are the very same rights at issue in this proceeding;

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[8] Noll Report at Table 1. Based on the most recent information produced in discovery, the total number of executed direct licenses was 78. None of my conclusions about the usefulness of the direct licenses as a benchmark are materially affected by this slight increase in the number of signed licenses. Because Dr. Noll's conclusions are based solely on the 62 direct licenses executed at the time of the initial submission of his testimony, in the remainder of this testimony I similarly focus on that set of licenses. As discussed below, Sirius XM attempted to negotiate direct deals with nearly 600 record labels.

[9] Id.

[10] *See* Written Rebuttal Testimony of Mark Eisenberg, at ¶ 17-18 ("Eisenberg Report").

[11] Noll Report at p. 10.

[12] Noll Report at pp. 32-33.

b. The sellers, independent record labels, are similar to the sellers for which rates will be determined in this proceeding;

c. The buyer, Sirius XM, is the same buyer for which rates will be determined in this proceeding; and

d. Rates directly negotiated between Sirius XM and independent record labels reflect competition among record labels to divert demand from other record labels, *i.e.*, to increase the extent to which their catalogs are played on Sirius XM.

10. Dr. Noll's arguments are not compelling. For reasons discussed below, these agreements fail to offer useful empirical evidence of the range of rates likely to arise through voluntary negotiations for sound recording performance rights between Sirius XM and record labels in a hypothetical marketplace free of the compulsory license regime.

B. Dr. Noll's Reliance on Sirius XM Direct Licenses Is Deeply Flawed

Dr. Noll fails to address adequately the fact that all but a small fraction of record labels approached by Sirius XM elected not to sign direct deals at the rates adopted by Dr. Noll as his benchmark.

11. The 62 direct deals comprise a decidedly biased sample on which to predict likely marketplace outcomes more generally, for the simple reason that the number of labels that entered into direct licenses with Sirius XM is dwarfed by the number of labels that declined to grant a license to Sirius XM at the rates offered by Sirius XM. More specifically, the 62 labels with which Sirius XM reached agreement are a relatively small sub-set of the nearly 600 labels that Sirius XM approached in the first instance.

12. Given that most record labels approached by Sirius XM did not sign direct licenses, Dr. Noll's reliance on the 62 direct deals is highly suspect. In any case, it is incumbent upon Dr. Noll to explain why a range of rates accepted by a relatively small fraction of the labels contacted by Sirius XM properly can serve as a benchmark for a statutory rate that will apply to the vast majority of record labels, including hundreds that either have not responded to, or have explicitly rejected, Sirius XM's overtures.

13. The only defense offered by Dr. Noll is that SoundExchange serves as a vehicle through which record labels collusively agree to refrain from signing direct licenses with Sirius XM and instead pursue the determination of a rate through the CRB. 6/6/12 Tr. 314:20-315:6 (Noll) ("I believe that there were a lot of labels that believe they'd be better off acting collectively and, in particular, certainly the majors believed that."); *see also* 6/6/12 Tr. 317:21-318:4. That uniform rate, according to Dr. Noll, is preferred by record labels, for two reasons. First, a uniform rate supposedly eliminates competition among record labels for greater airplay, *i.e.*, demand diversion, that otherwise would occur and thereby drive down licensing rates for sound recording performance rights.[13] And second, the very process by which the CRB determines a rate is purportedly stacked in favor of SoundExchange, for reasons principally concerning the timing of production that creates information asymmetries that favor SoundExchange in the rate-setting process. 6/6/12 Tr. 320:16-322:7 (Noll).

14. Taken together, Dr. Noll's discussion boils down to the view that record labels reasonably expect the rate determined through the CRB process to be higher than the rate(s) that would obtain *via* direct negotiations with Sirius XM. Or stated differently, Dr. Noll's contention is that most record labels expect the CRB process to yield a rate above what he would regard as at a competitive level. Dr. Noll's opinion is unfounded.

15. As to Dr. Noll's claim that a uniform regulated rate eliminates demand diversion with respect to airplay on Sirius XM, there are two responses. First, to the extent the CRB sets the uniform rate using as its benchmark the rates from a workably competitive and unregulated market, the benchmark market rates should reflect any effects of demand diversion in the services operating in that market, and therefore the statutory rate derived from that benchmark market likewise should capture the effects of demand diversion. In other words, a statutory rate

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[13] Noll Report at 41-42.

that is set based on an appropriate benchmark, properly adjusted to account for any relevant differences between the benchmark and target markets, will reflect all market influences including demand diversion.[14] Second, if it were the case that the statutory rate set by this Court did not reflect the effects of demand diversion, one might expect some number of record labels to undersell the statutory rate in an effort to gain a greater proportion of airplay on Sirius XM. The mere existence of a uniform statutory rate does not prevent price competition among record labels if the statutory rate is set at an above-market price.

16. As to Dr. Noll's argument that the regulatory process is stacked in favor of SoundExchange, there is no good reason to believe that proper application of the four statutory criteria that govern this proceeding likely will result in a rate in excess of competitive levels. If anything, the opposite might be true. As I explained in my written direct testimony, the first three statutory criteria call for the consideration of factors that reasonably would shape negotiations in an unfettered marketplace setting. The fourth factor, however, considers whether the rate might materially disrupt the ongoing viability of Sirius XM's business operations. Should the Court determine that application of this factor is warranted, it cannot elevate the statutory rate to above-competitive levels but rather can only lower it.

17. Dr. Noll does not acknowledge that the fourth statutory factor might inure to the disadvantage of the record labels. Instead, he highlights the rules that govern discovery, and in particular the fact that written direct testimony is submitted prior to the production of documents and other relevant information via

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[14] Previously, the Court has used the market for subscription interactive music streaming services as its benchmark. Although interactive services allow consumers to request particular sound recordings on demand, so that the royalty rate being charged by the record label will not influence the listening choice of the consumer, it is also true that such services often recommend music to their subscribers and "push" a playlist when the subscriber is not actively selecting the music to be streamed. Consequently, it is reasonable to expect that the royalty rates negotiated by record labels with subscription interactive services take into account demand diversion effects.

discovery.[15] While Dr. Noll is correct that SoundExchange's witnesses have the exclusive ability to review and analyze certain documents and data in the custody of SoundExchange or its members, and to incorporate the results of such analyses into their written direct testimony, it is indisputable that a similar advantage is enjoyed by Sirius XM's witnesses, who for their written direct testimony have exclusive access to Sirius XM documents and data.

18. Dr. Noll acknowledges that the discovery rules cut both ways, but asserts that on balance they benefit SoundExchange due to its supposed greater reservoir of pertinent evidence. 6/6/12 Tr. 318:20-320:9 (Noll). This view is indefensible – one need look no further than the fact that in preparing my written direct testimony I did not have access to any information pertaining to the very centerpiece of Dr. Noll's analysis – Sirius XM's direct licenses with independent record labels. But more importantly, whatever claimed advantage SoundExchange might have initially as a result of information asymmetries is surely eliminated through the discovery process and the ability of the witnesses to amend their written direct testimony based on discovery. In fact, Dr. Noll agrees that he received over 2,000 digital rights agreements in discovery, that he amended his written direct testimony based on that discovery, and that "[i]n fact, most of the discussion in my testimony about deals is based on discovery." 6/6/12 Tr. 330: 2-18 (Noll). In addition, information obtained through the discovery process may be incorporated in rebuttal reports and brought to the attention of the Judges in that fashion. If there is any information imbalance, it is quite temporary and certainly should not interfere with the ability of the Judges to set appropriate rates based on the application of the statutory standard.[16]

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[15] Noll Deposition Tr. 103:12-105:13.

[16] Dr. Noll also takes issue with the fact that SoundExchange can designate certain licensing agreements as non-precedential, *i.e.*, they cannot be used in proceedings before the CRB. There is a certain irony to that argument, because when Sirius XM entered into an agreement with SoundExchange to establish the rates for the Sirius XM webcasting service, Sirius XM requested

(footnote continued ...)

19. Related to his claim that the operative regulatory framework in this proceeding tilts in favor of SoundExchange, Dr. Noll advances the more general contention that the regulatory process is "inherently biased in favor of the regulated entity."[17] It is simply not correct, in my view, that as a general principal regulated entities benefit from an inherent bias in their favor. Railroads, for example, were heavily regulated until a series of legislative enactments largely deregulated the industry in the late 1970s and early 1980s. Railroads have experienced far greater economic success in the deregulated market economy then they did under the prior regulatory scheme.

20. Dr. Noll's central thesis that the great majority of independent record labels declined the offer of a direct license because they expected above-market rates from this Court does not find support in the relevant statutes or regulations. That most record labels rejected the direct license is far more likely to reflect a view that Sirius XM offered below-market royalty rates.

The direct licenses that form the basis of Dr. Noll's benchmark are heavily skewed towards small independent labels that represent artists with limited to nonexistent mainstream appeal.

21. Despite the fact that the overwhelming majority of labels offered a direct license declined to accept, Dr. Noll contends that the relatively few independent record labels that executed direct licenses are reasonably representative of the

(... footnote continued)

and received SoundExchange's agreement that those webcasting rates could not be used as precedent in this proceeding (although they could be used as precedent in the webcasting proceeding). In any event, given my understanding that Dr. Noll had access to more than 2,000 digital music licensing deals, I find it hard to believe that the exclusion of a handful of deals could materially handicap his efforts in deriving the relevant rate in this proceeding. That is particularly so because the only non-precedential deal of any real relevance is that which set the rates for Pandora and certain other webcasting services. As I explain below, we know from public sources that Pandora pays approximately 50% of its revenues in sound recording royalties, and this non-precedential agreement would not have supported Dr. Noll's benchmark analysis.

[17] Noll Deposition Tr. 83:16-84:4.

large majority that did not. The collection of 62 direct licenses that underlies Dr. Noll's preferred benchmark, however, involves record labels that are uniformly small and, for the most part, feature artists with no more than a niche or fringe following. Many labels with direct licenses feature artists whose works fall outside the mainstream, including genres such as Christian, blue grass, punk, goth, and children's music.[18]

22. Prior to the direct licensing initiative, no single one of the 62 labels that signed a direct deal represented more than [[redacted]] of song plays on Sirius XM, and collectively, the 62 labels accounted for no more than around 2% of song plays on Sirius XM.[19] As a threshold matter, a benchmark based on such a tiny sliver of the marketplace is highly problematic.

23. Dr. Noll attempts to defend the relevance of his benchmark, notwithstanding the consistently miniscule share of the pertinent independent labels, by claiming that their repertoires, when viewed as a single collection, closely mimic the scope of song catalogs offered by the major record labels and that are highly important to the successful operation of a mainstream music service.[20] Dr. Noll's argument is flawed in two respects.

24. First, even if one accepts his assertion that the collective song catalogs of the relevant independent labels resemble substantially the catalog of a major label in terms of breadth across genres and popularity, the fact remains that Sirius XM did not negotiate the sound recording performance rights for all of these catalogs with one label in a single transaction. Rather, it negotiated with each small label independently. A larger label with a broad catalog of popular recordings across a number of genres likely will negotiate a higher rate than each small label with the

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[18] Noll Report at Table 1.

[19] Eisenberg Report at ¶ 17.

[20] Noll Report at pp. 40-43; *see also* 6/6/12 Tr. 350:9-351:22.

same collective catalog could negotiate. The bigger the label and the larger its catalog of popular recordings, the more important it is for Sirius XM to avoid operating at a competitive disadvantage due to the absence of that entire catalog.

25. Sirius XM recognized this fact in its negotiations by offering higher rates to labels with a larger share of plays on Sirius XM. As explained by Ronald Gertz, candidate labels were assigned to one of three royalty rate buckets - 5%, 6%, or 7% - as a function of their share of plays. 6/7/12 Tr. 842:15-19 (Gertz).[21] The nature of Sirius XM's tiered royalty structure is consistent with the presence of a positive relationship between a label's importance (as measured by share of plays) and the label's negotiating position *vis-à-vis* Sirius XM. Sirius XM's CFO, Mr. Frear, confirmed at trial that Sirius XM generally was willing to offer higher rates for bigger and more popular catalogs. 6/7/12 Tr. 711:12-712:18 (Frear). As such, it strains credulity to suggest that a small label with a tiny market share can be considered representative of a much larger label by the simple trick of pretending that it is part of a collective.

26. Even if one were to accept Dr. Noll's invitation to think of the labels that signed direct licenses as a collective and ignore the reality that they are not, Dr. Noll fails to demonstrate that the benchmark independent labels represent current artists with mainstream consumer appeal. As observed by MRI representative Ron Gertz, "SiriusXM is very hits driven, and they want to have the most successful service they can, so they're going to use what's popular." 6/7/12 Tr. 836:17-22 (Gertz).

27. Yet in the section of Dr. Noll's written direct testimony headed "Types and Quality of Recordings", there appears to be no quantitative assessment of the popularity of the sound recordings owned by these labels and the extent to which

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[21] Sirius XM was willing to increase the royalty rate to 7% when it was requested by the labels, but the initial offers appear to have been driven heavily by the market share analysis conducted for Sirius XM. *See* Eisenberg Report at ¶¶ 11, 13.

they hold the rights to current hits.[22] Dr. Noll did not make any effort as part of his written direct testimony to analyze whether the labels that signed direct licenses had sound recordings that currently appear on Billboard charts, 6/6/12 Tr. 374:9-14 (Noll). And the specific examples of representative labels and artists that he cites are: (1) a label specializing in Broadway recordings; (2) three "former hit singles" that are actually re-recordings of the original hit versions of the songs he has cited; and (3) George Carlin, who, although one of the most popular comedians of all time, can hardly be considered representative of the popular music that has broad appeal among Sirius XM's subscriber base.[23]

28. Outside of his written testimony, when Dr. Noll has provided examples of artists and labels that support his reliance on the direct licenses, he has chosen artists that appear to have not signed direct licenses. For example, at his deposition, Dr. Noll referenced the band The Civil Wars as an example of a hit artist signed to a small independent label.[24] However, I have seen no evidence that the label representing The Civil Wars, Sensibility Music, has signed a direct deal with Sirius XM. Similarly, during his oral testimony, he referred to Lady Antebellum, again as an example of an artist that owns its own label. 6/5/12 Tr. 343:12-17 (Noll). That band, however, appears to be signed to EMI.[25]

29. Dr. Noll also adopts a rather specific definition of a hit song – in his view a "hit" is defined within its genre, and not with respect to overall consumer demand (popularity). 6/6/12 Tr. 367:13-18 (Noll). Of course, a popular song within a genre that enjoys limited consumer interest is, almost by definition, of

[22] Dr. Noll agrees that "quality," in this context, refers to the popularity of sound recordings among consumers. 6/6/12 Tr. 353:1-354:22 (Noll).

[23] Noll Report at 44-45.

[24] Noll Deposition Tr. 135:20-137:11.

[25] *See* All Music Guide – Lady Antebellum, http://www.allmusic.com/artist/lady-antebellum-mn0000946769.

limited popularity with the broader listening public. In short, Dr. Noll fails to demonstrate that the directly licensed independent labels represent artists whose music, at present, enjoys a broad-based consumer following. As a result, even if one accepts (incorrectly) as relevant the scope of the collective catalogs of the directly licensed independents *vis-à-vis* the catalog of a major label, Dr. Noll does not establish the similarity that he asserts is present.

Sirius XM's direct licenses with independent record labels are a poor benchmark because they were negotiated in the shadow of regulation and do not reflect unfettered competitive market outcomes.

30. The direct licenses used by Dr. Noll to construct his benchmark were negotiated in the shadow of regulation, which lessens their utility as reasonable marketplace benchmarks. Rates negotiated in the shadow of regulation present a problem when one attempts to use them as a benchmark to derive a market rate, because in the regulated market the seller is compelled to sell. Unlike an unregulated market, where the seller may simply decline to enter into a transaction if the price offered is deemed by the seller to be insufficient, in the regulated market the seller must sell either at a price agreed to through negotiation, or at the price set by regulation. That being so, negotiations in a regulated setting reflect not only market considerations, but also the parties' predictions about what rate the Court would set if negotiations failed.[26]

31. That is not to say that rates negotiated against a regulatory backdrop can never offer probative corroboration of benchmark rates based on unfettered marketplace outcomes. In the *Webcasting III* proceeding, I concluded that rates negotiated between SoundExchange and the National Association of Broadcasters (NAB) provided useful corroboration of benchmark rates derived from observed outcomes in digital music channels not subject to regulatory oversight, in

[26] Dr. Noll agrees with this proposition. *See* 6/6/12 Tr. 335:16-21; 336:21-337:6 (Noll).

particular interactive streaming services.[27] The circumstances present there, however, are not present here.

32. First, central to my conclusion in *Webcasting III* was the fact that both SoundExchange and the NAB had substantial familiarity with the CRB process. The NAB had participated directly and extensively in the *Webcasting II* proceedings, and therefore could reasonably predict the rates the Court would set if called upon to do so.

33. Second, the NAB is an organization that represents major broadcasting companies, and presumably had the resources to investigate any changes in the market that might have affected the rates set by the Court in *Webcasting III.*

34. Third, as I pointed out in my *Webcasting III* testimony, the NAB member companies were not required to buy sound recordings at a price negotiated with SoundExchange. That is, unlike the sellers in this market, the buyers were not compelled by statute to buy, and as large companies whose revenues were derived primarily from over-the-air broadcasting rather than webcasting, they had the option to simply exit the market if the rates offered by SoundExchange (or set by the Court) exceeded reasonable market rates. Under those circumstances, the rates voluntarily negotiated by the NAB companies would not likely exceed marketplace rates.

35. Here, none of these factors are present. None of the independent labels with direct licenses participated in the first SDARS proceeding, and I am aware of no evidence that they have a solid grasp of the applicable regulatory framework. Indeed, it is my understanding that some of these independent labels lack any familiarity with SoundExchange and the services it provides on behalf of its

[27] Written Rebuttal Testimony of Janusz Ordover, June 2010, Docket No. 2009-1/CRB Webcasting III, at ¶¶ 32-42.

record label members.[28] Moreover, I am aware of no evidence in the record that the independent labels with direct deals understood the methodological steps employed by the Judges in the first SDARS proceeding, in particular that the rate schedule set by the Judges incorporated a material downward adjustment – *via* application of the fourth statutory factor – to account for their view that satellite radio's forward looking viability otherwise would be threatened substantially.[29] The independent labels with direct deals, lacking an understanding of the key role the fourth factor played in the last proceeding, reasonably might view the current statutory rate as a highly reliable predictor of the rates the Court will set in this proceeding, and therefore be willing to accept rates at roughly equivalent levels when offered directly by Sirius XM.[30]

36. In addition, the labels that signed direct deals generally are quite small and presumably sufficiently resource-constrained to preclude any in-depth

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[28] According to the testimony of Mark Eisenberg, as many as 20 of the independent labels that executed direct licenses had not previously registered with SoundExchange and had not previously received royalties for the use of their sound recordings by Sirius XM. *See* Eisenberg Report at ¶ 57. Certainly, this suggests that many of the labels that signed direct licenses had very little if any knowledge of the regulatory environment and little incentive to learn about it.

[29] *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) (concluding that "there are two circumstances faced by the SDARS that merit the adoption of a rate below the upper boundary of the zone of reasonable market rates we have identified hereinbefore (i.e., 13%).

[30] I understand that representatives for Sirius XM communicated to at least some of the record labels that the statutory rate would [[redacted]]. *See, e.g.*, SXM_CRB_DIR_00055365 (email from MRI to label representatives explaining that "[[redacted]]); *see also* Eisenberg Report at ¶ 55. I also understand that SoundExchange and other recording industry organizations issued press releases indicating that these organizations believed a far more substantial rate increase was appropriate. I do not know whether these record labels saw the recording industry press releases. Hence, I cannot exclude the possibility that their only source of information with respect to the future statutory rate was Sirius XM and its representatives.

examination or analysis of the facts and circumstances that might lead the Court to increase the statutory rate. Moreover, their incentives to investigate thoroughly the Court's analytical history are muted by the modest dollar amount of royalties at stake for any one of them.

37. In these circumstances, the fact that the direct licenses between independent labels and Sirius XM were negotiated in the shadow of regulation renders these agreements unsuitable as probative evidence of rates that would obtain in an unfettered marketplace setting. And in any circumstances, it would be dangerous to accept such rates as the primary benchmark, as opposed to their serving a supplementary role as evidence that corroborates an appropriate benchmark less influenced by the direct effects of regulation.

Sirius XM's direct licenses are a poor benchmark because the incentives of the independent labels that signed such deals differ markedly from the incentives of larger record companies.

38. A further serious shortcoming of Dr. Noll's direct licensing benchmark relates to the economic incentives of the labels that signed such deals, and more importantly, how those incentives differ from the economic interests of larger labels that declined to reach agreement directly with Sirius XM. Dr. Noll acknowledges the presence of such differences, 6/6/12 Tr. 357:13-358:11 (Noll), but fails to address their significance *vis-à-vis* the relevance of his proposed benchmark. In short, the direct licenses fail to represent a reliable benchmark because the economic incentives of the direct licensees are substantially different from those that would shape the negotiation strategies of larger record labels.

39. Dr. Noll identifies three factors that led certain independent labels to sign direct licenses with Sirius XM. The first factor relates to their expectations concerning the schedule of statutory rates the Judges ultimately will establish.[31]

[31] Noll Deposition Tr. 116:13-19.

As noted earlier, those expectations do not benefit from a solid understanding of the operative regulatory framework, or in at least some cases even from awareness of the role served by SoundExchange. As a result, the directly negotiated rates fail to provide probative evidence of rates that would obtain through unfettered marketplace interactions.

40. The second factor discussed by Dr. Noll centers around a label's interest not in the royalty rate itself, but rather in the royalty revenues it expects to receive, *i.e.*, the product of the royalty rate and the volume of plays associated with the label's catalog. Of course, each and every label, large or small, seeks to maximize expected royalty revenue,[32] but the relative importance of the two components in how they approach rate negotiation that generate total royalty revenue depends on a label's size (*i.e.*, importance to Sirius XM, as reflected in volume of plays). More specifically, the smaller is a label's volume of airplay on Sirius XM, the less importance it should place on the royalty rate relative to airplay volume when considering the economic consequences or a lower rate versus additional volume of plays. 6/6/12 Tr. 364:3-12 (Noll); *see also* 6/6/12 Tr. 360:8-16 (Noll). This is so because a small label has an incentive to accept a lower rate if, as a result, the label can expect an even modest stimulation in airplay volume of its catalog (on a weekly basis, say).[33] For larger labels, however, the calculus looks quite different insofar as a far more substantial

[32] Here, I assume that royalty revenue flows entirely, or at least nearly so, to the bottom line, *i.e.*, profits.

[33] If a label's profits are given by $R=p*Q$, where price (rate) is p and plays is Q, a small change in price will change profits according to $dR=dp*Q + p*(dQ/dp)$, where (dQ/dp) reflects the change in the number of plays as a function of a small change is price (here, royalty rate paid to the label). It is easily seen that when the number of plays, Q, is very small, a reduction in the rate (dp), will not depress revenues by much. Here, the relevant issue is the label's expectation regarding the change in its volume of plays given a reduction in the rate it accepts from Sirius XM. In this case, the formula can be revised as $dR=dp*Q + p*E(dq/dp)$, where E denotes the expected change in quantity of plays given the new rate.

increase in airplay volume is required to counterbalance the downward effect of the same reduction in a royalty rate on royalty revenues.

41. Dr. Noll recognizes that, in his words, "this is an industry with a very small number of dominant firms and a very large number of tiny fringe firms, and the incentives operating upon the fringe firms are very different than the incentives operating upon the dominant firms." 6/6/12 Tr. 357:14-358:11 (Noll). He agrees that a small independent label with minimal airplay will place less emphasis on the royalty rate, 6/6/12 Tr. 360:9-16 (Noll), while "[t]he people that really care about the rate are the ones who are played a lot, and that's mainly the majors. They're the ones who care most about the rate." 6/6/12 Tr. 364:3-12 (Noll).

42. In this regard, Dr. Noll is correct, because a small indie whose sound recordings are rarely played might reasonably think that it could double, triple or quadruple its plays on Sirius XM, given that even this magnitude of increased plays would require only a minor change in Sirius XM's overall playlists. Such an increase in plays might warrant accepting a lower rate, given a reasonable expectation that total royalty revenue will increase. But a major label such as UMG reasonably would not expect significant increase in plays, as it would require Sirius XM programmers to deviate substantially from extant playlists that presumably were configured so as to maximize the appeal of Sirius XM's music content to its subscribers (actual and potential). Without the possibility of sufficiently large increases in plays, the major label will be, therefore, disinclined to offer a reduction in the royalty rate that would be profitable to a miniscule label.

43. Moreover, significantly increasing or decreasing the number of plays of sound recordings controlled by a major label would require a major change in Sirius XM's playlists, and such a change is highly unlikely. Sirius XM's demand for music content is derived from its subscribers' (actual and potential) demand for music content. What this means is that Sirius XM has potent economic incentives to curate its music programming, both in terms of the number of music

channels and the music played on those channels, in a way that maximizes the aggregate consumer appeal of the Sirius XM subscription service. Sirius XM certainly recognizes this: Sirius XM witness Steven Blatter testified that when Sirius XM creates its playlists, the "merits of the artist and song" trump price. 6/8/12 Tr. 981:14-982:12 (Blatter). The extent to which differences in per-song royalty rates can influence the configuration of station playlists is limited by the degree to which departures from the "optimal" (*i.e.*, profit-maximizing) selection of music increase the risk that Sirius XM will lose subscribers (or not gain as many new subscribers as it otherwise might) and may be compelled to charge lower subscription rates to compensate for the deterioration in the quality of its programming. In other words, the expectation of increased airplay that perhaps encouraged some smaller independents to sign direct deals with Sirius XM likely would not influence materially the decision-making of larger labels for which such an expectation would be substantially less plausible.

44. While Dr. Noll concedes that small independent record labels have different incentives and places less weight on the royalty rate compared to large independents and the majors, he makes no attempt whatsoever to address this issue in his analysis. Plainly, however, his reliance on direct licenses with small independent labels is substantially undermined by his own admission that larger record companies have different incentives and "really care about the rate." 6/6/12 Tr. 364:9-11 (Noll).

45. Finally, the third factor discussed by Dr. Noll concerns his contention that certain labels with direct deals may have been willing to reach agreement with Sirius XM due in part to dissatisfaction with SoundExchange's processes for collecting and distributing royalties.[34] I have not examined the merit of this assertion, but insofar as it is accurate, it provides another reason why the rates in

[34] Noll Deposition Tr. 117:5-118:3.

the direct deals do not represent a reasonable benchmark rate for the overall marketplace.

Specific features of Sirius XM's direct licenses cast further doubt on their utility as a benchmark in this proceeding.

46. Certain features of the direct license deals likely exerted a downward influence on the rates the participating labels were willing to accept, providing yet another reason why these direct licenses are not a proper benchmark in this proceeding. One such feature is the payment of advances by Sirius XM to certain of these labels, which has the effect of providing an immediate flow of revenues to the label. While such advances are recoupable against future royalty payment obligations, they nevertheless offer the label an increased level of certainty with respect to the royalty revenues it will receive over the life of the contract.[35] And while I have not had occasion to study the finances of the companies that accepted the direct licenses (and in some cases received advances), the opportunity to obtain immediately the full payment of a revenue stream that might otherwise trickle in over several years could very likely be highly attractive to many record labels.

47. A second feature of the direct licenses relates to the fact that labels collect 100% of the royalties owed by Sirius XM. In contrast, it is my understanding that SoundExchange is required by statute to distribute collected performance royalties as follows: 50% to the record label, 45% to the featured artist, and 5% to the secondary artist(s). For a record company that is permitted by its artist contracts to do so, it can take advantage of the fact that it is receiving 100% of the royalties from Sirius XM to more quickly (and perhaps in some instances more

[35] *See* Eisenberg Report at ¶¶ 46-47.

completely[36]) recoup any advances paid to its signed artists than would be possible under the statutory scheme.

48. Similarly, for record companies that do not owe royalties because they pay a flat fee to the artists for a work-for-hire, the benefits of receiving 100% of the royalties through a direct license with Sirius XM are even greater. In effect, the benefit of the royalty payment under the direct license for such labels is double what the same royalty rate would generate for the record label under the statutory license.[37] I have not studied the businesses of the record labels that signed direct licenses to determine the terms of their contracts with their artists, and I understand that SoundExchange is submitting testimony by Mark Eisenberg which will further elaborate on this topic, but the existence of a potential strong incentive to sign a direct license in order to avoid the apportionment of royalties mandated for statutory rates casts further doubt on the validity of direct licenses as a benchmark.

49. In sum, the direct licenses between Sirius XM and certain independent labels are not an appropriate benchmark for setting the rate in this proceeding. I will not reiterate here the various reasons why this is the case, except to emphasize again what I consider to be their most significant drawback. Briefly stated, they comprise a highly unrepresentative sample – only a small fraction of labels approached by Sirius XM, collectively accounting for roughly 2% of the historical airplay on the service, ultimately agreed to a royalty rate of 5% to 7%. Thus, as a threshold matter, Dr. Noll must explain why this range of rates

[36] Dr. Noll agrees on this point. "Q: So in a situation where the record company is getting 100 percent of the royalties, as opposed to 50 percent under the statutory scheme, its chances of fully recouping its advances are improved, right? A: That's exactly right." 6/6/12 Tr. 345:5-10 (Noll).

[37] Again, Dr. Noll agrees. "Q: But for a record company that doesn't owe a royalty to its artists because its got – its doing works for hire, for example, a 7 percent rate from Sirius XM is really equivalent to a 14 percent statutory rate for that – for that label, right? A: That would be the case, that's right. That's an incentive for them to sign this, exactly." 6/6/12 Tr. 347:7-14 (Noll).

nevertheless should apply to all remaining record labels, including hundreds that specifically rejected these very same rates. Dr. Noll opines that the framework governing the CRB proceeding tilts in SoundExchange's favor, and record labels for the most part are therefore disinclined to sign direct deals and thereby surrender the fruits of SoundExchange's supposed grip on the regulatory process. Because this key assertion of Dr. Noll is unfounded, his proposed use of the direct deals as a benchmark is inconsistent with sound economics.

IV. Dr. Noll's Second Benchmark: Non-Interactive Subscription Services

A. Introduction

50. Dr. Noll's second benchmark is derived from non-interactive subscription services, and more specifically from rates negotiated between one service, Last.fm, and each of the four major record labels. The Last.fm agreements utilized by Dr. Noll do not represent a sound benchmark for purposes of determining a rate schedule for Sirius XM in this proceeding.

51. In the remainder of this section, I discuss and critique, in order, the five steps implemented by Dr. Noll in his second benchmark approach.

B. Step One: Identify Appropriate Benchmark Services

52. Dr. Noll's initial step is to identify the category of digital music services most comparable to satellite radio. His determination is guided by the differences in interactivity across services, and more specifically by the proposition that the most comparable type of service should correspond as closely as possible to satellite radio's lack of interactivity. Using this metric, he selects "the least customized Internet services, which includes [sic] simulcasts of terrestrial radio, webcasters, and streaming Internet services."[38] Dr. Noll then narrows his set of

[38] Noll Report at p. 69.

possible benchmarks to subscription-based (paid) offerings such as those available from Pandora, Slacker, Last.fm, and Live365.

53. Dr. Noll's conclusion is flawed in a couple of important respects. First, non-interactive subscription services fall under the purview of the CRB and the operative regulatory regime. Dr. Noll states that he would not regard the webcasting royalty rates set by this Court in *Webcasting III* as a valid benchmark in this case because "they were determined by a regulatory process. They didn't meet the willing buyer/willing seller test." 6/6/12 Tr. 386:12-19 (Noll); *see also* 6/6/12 Tr. 387:9-388:8 (Noll) ("[T]he regulated rate is not a market-determined rate, so using it as a market-determined benchmark would be inappropriate."). Yet his use of the Last.fm agreements very much suffers from the same problem. The observed rates, even if negotiated between a single service and a single record label rather than set by this Court, are influenced by the parties' expectations regarding rates that would be set through the regulatory process. In fact, as Dr. Noll recites in his written testimony, some of the per-play rates in the Last.fm agreements are actually expressed as a stated amount or percentage over the existing statutory rate.[39] Given Dr. Noll's statement that regulated rates do not meet the willing buyer/willing seller test, his decision to use negotiated agreements so closely tied to the regulated rate is puzzling.

54. Second, the fundamental assumption guiding Dr. Noll's selection of his candidate service type is that Sirius XM's non-interactivity trumps all other possibly relevant factors in determining the appropriate royalty rate. A straightforward comparison of retail prices demonstrates that Dr. Noll's assumption is unwarranted. Non-interactive subscription services like Last.fm and Pandora are priced at three dollars per-month. By comparison, using Sirius XM's current retail prices, a reasonable price estimate for a hypothetical music-

[39] Noll Report at pp. 78-79.

only Sirius XM service is \$8.66.[40] Clearly, the Sirius XM service offers features and attributes that lead consumers to value it at substantially greater levels *vis-à-vis* non-interactive subscription services. In fact, the estimated price of \$8.66 is relatively close to the \$9.99 monthly retail price observed across interactive subscription services, which strongly supports the use of interactive subscription services as the appropriate benchmark for determination of rates in this proceeding.

55. Fundamentally, it seems to be Dr. Noll's view that non-interactive internet radio is an excellent substitute for and entirely comparable to satellite radio in the consumers' eyes, because they are both non-interactive. Yet satellite radio is a service that apparently is valued by most subscribers because of its ubiquitous availability in the car, and Sirius XM witnesses have agreed that internet radio services like Pandora are "not available in an easy-to-use way in the car yet." 6/6/12 Tr. 555:20-22 (Meyer). Perhaps that situation will change at some point in the upcoming rate term, and perhaps not – I do not opine on the probability of technological change and its pace. But given the concession by Sirius XM witnesses that internet radio is not yet widely available in a car in the same easy-to-use way that Sirius XM offers, Dr. Noll erred in focusing solely on the presence or absence of interactivity to the exclusion of other factors that currently would seem to increase the value to consumers of the Sirius XM service.

C. Step Two: Determine Benchmark Royalty Rate

56. Dr. Noll's second step is to identify royalty rates negotiated in the marketplace between candidate services and record labels. Dr. Noll ultimately chooses agreements negotiated between Last.fm and the four major record labels

[40] With music content estimated to represent one-half of the total value of Sirius XM service, the price of a hypothetical music-only service is one-half the current monthly price of Select packages (\$14.49) plus the music royalty fee (\$1.42).

because Last.fm, as the least customizable (interactive) of the available benchmark services, is purportedly most comparable to satellite radio.[41]

57. It is immediately apparent that in his second step, Dr. Noll relies on an exceedingly small sample size of rates. The sample consists of four contracts negotiated by a single non-interactive service (Last.fm). As is well understood by statisticians (and economists), the smaller the sample the more difficult it becomes to draw reliable inference for the whole population. Dr. Noll's reliance on the Last.fm agreements is totally inconsistent with sound economics and statistics.

58. The probative value of the Last.fm agreements is also undermined by the fact that two of the four agreements are expired and thus, by definition, do not provide evidence of the rates that even Last.fm could currently negotiated with these labels, and are thus not probative.

59. That the Last.fm agreements are not representative of the royalty rates for non-interactive webcasting generally is confirmed by the public reports regarding Pandora's financials, which indicate that sound recording performance royalties paid by Pandora equaled approximately 50% of its 2011 revenues,[42] and more than 60% of its revenues in the first quarter of 2012.[43] These figures would translate to royalty rates of 25% to 30% of gross revenues for Sirius XM, based on the analysis in my written direct testimony that determined one-half of Sirius XM's overall value properly is attributable to music content. While Dr. Noll laments the fact that the royalties rates for Pandora are non-precedential and may not be used in a rate-setting procedure, he certainly was aware of the fact that

[41] Noll Report at p. 76.

[42] "Clear Channel and Taylor Swift's Label Agree to Reinvent Royalty System," *New York Times*, June 5, 2012.

[43] "Digital Notes: Pandora's Revenues Grow, and Streaming Music's Global Drive," *New York Times*, May 24, 2012.

Pandora pays roughly 50% of its revenues in royalties to the record labels, because he cited Pandora's SEC Form 10Q for the quarter ended July 31, 2011 in his written testimony.[44] While the Pandora rates are not available as precedent, the publicly available information about Pandora should have alerted Dr. Noll to the fact that the Last.fm agreements are far from representative.

60. Dr. Noll's reliance on the Last.fm agreements is problematic for the additional reason that it carries with it the need to account for the per-play component of the mechanism used to determine Last.fm's royalty payments. More specifically, and as Dr. Noll acknowledges, Last.fm's royalty payments are calculated as the greater of the amounts yielded from application of three separate metrics – percentage of revenues, per-subscriber, and per-play. However, because he does not have per-play data for Last.fm, Dr. Noll utilizes analogous information for Slacker, another non-interactive service, to estimate Last.fm's royalty payments under application of the per-play rates found in the Last.fm agreements.

61. Two observations bear mention. First, Dr. Noll's non-interactive services benchmark in general, and his reliance on the Last.fm agreements in particular, needs to account for intensity of usage. Dr. Noll bemoans the supposed paucity of listenership data, but proceeds nevertheless to implement the required adjustments using a single month of data for Slacker as reported to a single record label. Suffice it to say that reliance on a single data point for intensity of usage further exacerbates the initial problem of using four contracts from a single service to derive the appropriate rate for Sirius XM. Furthermore, the need to account for intensity of usage in order to obtain the "percent-of-revenue" rate adds another

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[44] Noll Report at p. 66 n. 64. The Form 10Q cited by Dr. Noll states at page 37: "For our fiscal year ended January 31, 2011 we incurred SoundExchange content related acquisition costs representing 45% of our total revenue for that period."

step in translating observed contractual payment terms into equivalent terms applicable to Sirius XM.

62. Second, the Slacker data relied on by Dr. Noll do not represent the only source of information which could be used to estimate intensity of usage among subscribers to non-interactive streaming services. According to fiscal year 2012 (Feb 2011 – Jan 2012) data reported by Pandora to SoundExchange, Pandora subscribers (*i.e.*, the paying audience) listened to [[redacted]] plays (performances). While Pandora does not report subscriber counts for its paid service, an estimate can be generated by dividing the service's reported subscription revenues by the annual retail price of $36. For fiscal year 2012, Pandora reported subscription revenues of $34,383,000,[45] which when divided by $36 yields a subscriber count estimate of 955,083, and a corresponding monthly per-subscriber performance figure of [[redacted]].[46]

63. This figure dwarfs substantially the [[redacted]] monthly plays per-subscriber estimated by Dr. Noll from Slacker's royalty payment data, which he uses to estimate percentage of revenue royalty rates of between 25% and 27.5% that are then adjusted to determine a rate purportedly applicable to Sirius XM in steps three to five of his second benchmark approach. Not surprisingly, if Dr. Noll had used the monthly per-subscriber performances figure of [[redacted]] estimated for Pandora, his results would have been markedly different.[47] In the table below, I

[45] Pandora Media, Inc. 10-K for fiscal year ending January 31, 2012, at p. 40. Note that Pandora reports as a single entry "subscription and other revenues." The company's 10-K contains no indication of the significance of "other" revenues. However, my assumption that the reported revenues flow entirely from subscriptions has an upward effect on the subscriber count estimate, and thus a downward effect on the per-subscriber monthly performances estimate, *i.e.*, the assumption is conservative insofar as it pushes downward the estimated rate for Sirius XM.

[46] [[redacted]]

[47] To be clear, it is not my testimony that the Pandora data generate the correct estimate of intensity of usage. Rather, I discuss the Pandora data, and other sources of information, to highlight the substantial variance across intensity of usage estimates, and hence the material

(footnote continued ...)

present a revised version of Dr. Noll's calculations based on estimated monthly plays per-Pandora subscriber.

Last.fm Agmt with (a)	Per-play rate (b)	Per-sub royalty pmt under per-play rate (c) = (b)*1086	Per-sub royalty pmt as % of per-sub revenue ($3.00) (d) = (c)/$3.00
Warner	$0.001	[[redacted]]	[[redacted]]
EMI	[[redacted]]	[[redacted]]	[[redacted]]
Sony	$0.00165	[[redacted]]	[[redacted]]
Universal	[[redacted]][48]	[[redacted]]	[[redacted]]

Based on my estimate that music content accounts for one-half of Sirius XM's overall value to subscribers, the figures in the right-hand column imply a percentage-of-revenue rate for Sirius XM of between [[redacted]], *i.e.*, 50% of the values reported in the right-hand column.[49]

64. There is also information pertaining to intensity of usage for Sirius XM. In *SDARS I*, Dr. Pelcovits used survey data produced by Sirius and XM to derive an estimate of weekly time spent listening to music of 14 hours and 45 minutes per-subscription.[50] Assuming that the average month has 30 days, this translates into 63.21 hours per-month of music listening per-Sirius XM subscription.

(... footnote continued)

imprecision that Dr. Noll's non-interactive services benchmark inevitably introduces. Additionally, I present several intensity of usage estimates to highlight the fact that Dr. Noll's analysis relies on a single data point, to the exclusion of other available information that generates substantially different results.

[48] Dr. Noll's calculations of the per-play rates for Universal and Sony appear to be incorrect. In both cases, the per-play rates are stated with reference to [[redacted]]. Dr. Noll uses [[redacted]] to perform his calculations. Noll Report pages 78-79.

[49] Pandora's payment of roughly 50% of revenues to SoundExchange in Pandora's fiscal year 2012 falls within the range reported in the table's right-hand column.

[50] Written Rebuttal Testimony of Michael Pelcovits at 16, Appendix A, July 2007, Docket No. 2006-1 CRB DSTRA.

Finally, adopting Dr. Pelcovits' assumption that 15.5 songs are played on average over the course of one hour,[51] the number of monthly plays per-Sirius XM subscription equals approximately 980. As with the Pandora listenership estimates presented above, this estimate varies substantially from Dr. Noll's Slacker-based single data point of [[redacted]].

65. Again, the point of this discussion is not to claim that my estimates of intensity of usage are correct and Dr. Noll's estimate is wrong, although his estimate is out of line with other estimates, but rather to highlight the wide range of values one obtains depending on the underlying information source. Given the substantial variance across estimates, there is no basis for Dr. Noll to advance a benchmark rate that relies on a single point estimate of usage intensity.

D. Step Three: Portion of Satellite Radio's Value Accounted for by Music Content

66. Dr. Noll's third step seeks to adjust the percentage of revenue rates obtained from step two (25% to 27.5%) such that they are limited to the music content component of Sirius XM's service.[52] To that end, Dr. Noll applies three separate methodologies, all of which are based on the view that consumers' willingness to pay for Sirius XM, as reflected in retail prices, is a function of the

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[51] Id.

[52] One notable feature about the "marketplace" agreements with Last.fm upon which Dr. Noll relies is that all of the agreements grant Last.fm the rights necessary to operate its service using all of the authorized sound recordings of the labels. In other words, the royalty rate that is set forth in those agreements is applied to all of Last.fm's revenue as defined in the agreement and all of the performances of a given label's recordings are taken into account in determining compensation to the label, with no distinction based on when a sound recording was made. Dr. Noll does not adjust his SDARS royalty derived from the Last.fm agreements to account for the lack of federal copyright protection for sound recordings fixed prior to 1972 (so-called "pre-72 recordings"). Nor did I make an adjustment in my recommended rate derived from the interactive services. If one were to assume that Last.fm and the interactive services are not required to pay any royalties on the pre-72 recordings they use (a question on which I express no opinion), the payments they make for their use of other sound recordings would have to be viewed as correspondingly higher.

value of each product in the Sirius XM bundle, namely access to music content, access to non-music content, and the Sirius XM transmission network.[53]

67. As a threshold matter, all of Dr. Noll's methodologies are flawed inasmuch as they are based on the proposition that Sirius XM's network and delivery system should be treated as part of the "bundle" purchased by subscribers, *i.e.*, the network and delivery system should be carved out from content as part of estimating the portion of the service's overall value accounted for my music. To begin with, there should be no dispute that without access to music (and non-music) content, Sirius XM's delivery infrastructure would be valued by consumers at zero.

68. In addition, Sirius XM's pricing casts serious doubt on Dr. Noll's contention. The company charges the same $14.49 per-month price for its Sirius Select and SiriusXM Internet Radio packages, which are substantially similar offerings in terms of content and differ most materially in that one is delivered *via* its satellite network and the other is delivered over the Internet.[54] Such pricing would seem irrational if the company believed that transmission over its satellite network added additional value to its service over and above the content itself.

69. Moreover, there is no evidence that a service provider's investments in transmission and delivery are effectively deducted from subscription revenues prior to calculating royalty payments owed to copyright-holders. For example, the cost of servers and the Music Genome Project are not netted out from Pandora's royalty payments. Rather, the value of a service provider's investments in its delivery mode is reflected – to the extent permitted by consumers' willingness to subscribe to the service, given the alternatives – in the price it is able to charge, and thus in the royalty payments earned by copyright-holders and

[53] Noll Report at p. 80.

[54] http://www.siriusxm.com/ourmostpopularpackages-sirius.

the revenues received by the service provider. Investments that provide greater value (as reflected in price and consumer demand) generate higher royalty payments in an absolute sense, but there is no economic basis for adjusting downward royalty payments as a percentage of revenue to account for greater investments in the transmission network. Again, insofar as those investments translate into greater consumer value, both the service provider and the copyright-holders will earn greater overall revenues.[55]

70. To buttress his assertion that marketplace royalty rates for sound recording performance rights reflect the value of the service provider's delivery system, Dr. Noll points to the fact that the wireless carrier Cricket has agreements for its interactive music service with all the four major labels that includes [[redacted]].[56] Dr. Noll's use of Cricket as an analogy for Sirius XM misses the mark. He claims that Cricket's [[redacted]] rate reflects adjustments "to take into account other components of the bundle, including transmission service."[57] In fact, Cricket bundles music with a variety of other services unrelated to the delivery of content, including the services common to wireless telephone plans such as voice calling, text messaging and data usage, all of which have independent value for consumers. Because various elements of

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[55] To illustrate, consider the following example involving two music distribution services, Service A and Service B. Service A's investments in a delivery system are relatively modest, while Service B's analogous investments are relatively large. Service A pays 50% of its revenues for access to sound recording rights. Under Dr. Noll's approach, Service B should pay substantially less than 50% of revenue due to the greater size of its investments, even though in the case of each service, the delivery system has no value without access to music. In effect, Dr. Noll asks copyright-holders to shoulder a portion of Service B's decision how to deliver content to consumers, and the resulting financial obligations. Simply stated, Service B's ability to earn a normal rate of return on its investments should be determined in the marketplace rather than by de-valuing the music content licensed by Service B to the point that assures Service B that it *will* earn the expected market rate of return on its investments.

[56] Noll Report at p. 81.

[57] Id.

the bundle of services are priced out in the marketplace, the total value of the bundled service can, in principle, be apportioned among the components of the bundle.

71. In contrast, the Sirius XM transmission system does not have value to consumers independent of the content it transmits. As stated by Sirius XM's CFO, David Frear: "I don't believe that our customers really care whether they're getting the signal across a satellite or a terrestrial repeater or an Internet connection. What they have come to us for is SiriusXM-branded programming for a specific price. And it's 140 channels of music, talk, news and sports. So they just want to listen to that." *6/7/12* Tr. *666*:5-11 (Frear). In the case of Cricket, it makes economic sense that the rate earned by sound recording copyright-holders as a percentage of revenues should be adjusted to reflect the fact that some portion of the price is paid by consumers for other content or services that they value (and which are delivered over the same distribution network as the music content). This downward adjustment reflects the value of music content as part of a bundle of numerous services; it has nothing to do with Cricket's delivery system – it has to do with the fact that the delivery system *delivers* services that also have an independent value to consumers.

72. I now turn to specific critiques of Dr. Noll's three approaches to estimating the portion of Sirius XM's overall value that should be attributed to music. His first approach utilizes the $3.00 per-month subscription price charged by Last.fm and Pandora.[58] In other words, Dr. Noll concludes that Sirius XM would be able to charge its monthly subscription price, less three dollars, for a service without music content but otherwise identical to its current offering.

[58] Dr. Noll ignores, without good reason in my opinion, non-interactive webcasting services such as Live365 that charge significantly more than $3 per month for a subscription. These services and their subscription prices are listed in my Third Corrected and Amended Testimony at page 34.

73. Dr. Noll's contention does not square with Sirius XM's actual pricing. In particular, Sirius XM currently offers a plan that does not include any music channels. This "non-music" plan, known as Sirius/XM News, Talk, & Sports, is priced at $9.99 per-month. Sirius/XM Select is the company's lowest-priced plan that combines music and non-music content. That plan retails for $15.91 per-month ($14.49 base price plus $1.42 music royalty fee), or nearly six dollars more than the non-music plan. If Dr. Noll were correct that Sirius XM and his benchmark webcasting service were comparable and direct competitive substitutes, one would expect a substantial volume of consumers to forego subscriptions to Sirius/XM Select in favor of subscriptions to the company's non-music plan and a second subscription to a benchmark webcasting service, such as Pandora One.[59] In fact, the company's non-music plan accounts for a minuscule fraction of total subscribers.

74. Similarly, if Sirius XM and webcasting services were direct substitutes, it would seem unlikely that Sirius XM could raise the price of its basic subscription without losing subscribers to internet webcasting services, which have not raised their basic subscription prices. Yet Sirius XM has done just that, and according to Mr. Karmazin, the company has perceived no adverse impact on its subscriber growth.[60]

75. Dr. Noll's second approach relies on the results of a survey designed by Professor Hauser. Based on the survey, Professor Hauser concludes that music content accounts for 25.7% of satellite radio's overall value. In my view,

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[59] Note that even if one were to use Sirius XM's old price of $12.95 per-month, the implied incremental price for music would still exceed $3.00 by a substantial margin.

[60] "SIRI - Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 3 (Mel Karmazin stating, in the first earnings call after Sirius XM implemented an increase to its subscription price, "Given the approximately 12% base package price increase we implemented in January, this positive churn result and no dip in conversion certainly exceeded our expectations and is an excellent demonstration of the value consumers place on our service.").

Professor Hauser's survey suffers from a faulty design that has the inexorable downward effect on the estimated value of music content. The reliability of Professor Hauser's survey is undermined by the following serious flaws:

a. Professor Hauser's results are inconsistent with marketplace realities. His estimated value of music content – \$3.24 – is well below the value of music to *marginal* subscribers – \$5.92 – that is implied by Sirius XM's pricing across its plans. The value of music on average across current subscribers would be even higher.

b. Professor Hauser determines his estimated value for music content without considering the separate music royalty fee that Sirius XM charges subscribers whose service plan includes more than incidental amounts of music.

c. It is hard to imagine that consumers would pay any positive price for a satellite radio service without content, and yet Professor Hauser's survey finds otherwise. Taken at face value, his survey suggests that subscribers will pay \$1.97 for ubiquitous station availability, plus \$1.20 for premium sound quality, as well as \$2.46 for the absence of commercials, all without any actual content (*i.e.*, if all they could hear on the radio were white noise).[61]

d. In a survey design of the type employed by Professor Hauser – where respondents are asked to value individual attributes with reference to a fixed price for the offering overall – the higher the number of features or attributes are included, the lower will be the estimated value of any given attribute. Thus, by including several attributes in addition to music and non-music content, Professor Hauser's survey necessarily pushes downward the estimated value of music (and non-music). Moreover, by carving up non-music content into several separate categories, Professor Hauser further depresses the estimated value of music content.[62]

e. Professor Hauser contends that his survey included the appropriate set of attributes, based on the fact that the sum of average willingness to

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[61] Corrected Written Direct Testimony of John R. Hauser at Appendix G (SXM Dir. Trial Ex. 24).

[62] *See* Written Rebuttal Testimony of Dr. Itamar Simonson at 18.

> pay across all attributes ($12.47) is reasonably close to the actual monthly subscription price ($12.95 at the time of the survey). However, given that respondents were provided information on plan pricing and were asked questions with reference to those prices, it is not surprising that their responses would be affected by those prices. Moreover, it is important to recognize that by posing questions with reference to retail prices, Professor Hauser's survey does not address willingness to pay. Assuming a downward sloping demand curve, the retail price reflects willingness to pay only for the marginal subscriber(s). Average willingness to pay across all subscribers (respondents) must exceed retail price.

76. Dr. Noll's third approach is based on the notion that the value of Sirius XM's network and delivery system can be estimated using the company's underlying costs. Dr. Noll characterizes this approach as an implementation of the third statutory factor, but in reality Dr. Noll is advocating a rate determination framework that allows Sirius XM to recover its costs. Simply stated, there is no economic basis to support a rate determination methodology guided by Sirius XM's ability to earn any particular rate of return on its network and delivery costs, or even Sirius XM's recovery of such costs.[63] This is so for the simple reason that Sirius XM's continued operation and financial performance is driven by its forward-looking ability to fund future expansions and improvements to its transmission network, given its expected revenues and costs, including sound recording licensing fees.[64]

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[63] If Sirius XM cannot fully recover its long-run costs, it will be forced to exit or contract. In no sense does a competitive marketplace ensure that these costs will be covered. At best what can be said is that the surviving firms will be able to recover these costs.

[64] Insofar as the Judges determine that a particular rate will jeopardize Sirius XM's continued operation, they have at their disposal the fourth statutory factor. From the standpoint of competition policy, I interpret the fourth factor as allowing for downward adjustments to a proposed rate when that rate is viewed as likely to have a disruptive impact on the economic viability of an otherwise efficient service that appeals to a material volume of consumers. The fourth factor, in my view, should not be used to guarantee a service a particular rate of return on its investment nor to subsidize a service whose business model has proven ineffective in the marketplace.

77. As should be apparent, Dr. Noll's third approach would yield higher or lower rates depending on changes in Sirius XM's costs, or which costs are deducted from the revenues for purposes of calculating rates. In effect, sound recording copyright-holders are asked to shoulder – if necessary – the burden of increases in Sirius XM's costs, or in the extreme to receive no compensation whatsoever if those costs exceed the company's revenues.[65] This makes no sense as a matter of economics, unless Sirius XM is a public utility operating under rate regulation, which it is not. The value of Sirius XM's service is reflected in its price and the strength of consumer demand. As that value increases (or decreases), copyright-holders will earn greater (or smaller) total revenues, but under the "percentage-of revenue" licensing plans their share of revenues will remain the same. Across all scenarios, access to sound recordings properly is viewed as accounting for the same portion of Sirius XM's total value as reflected in its revenues.

78. Beyond its conceptual shortcomings, Dr. Noll's proposal to carve out Sirius XM's transmission and delivery costs is further undermined by his rather expansive definition of "delivery costs."[66] Included in Dr. Noll's tally of costs are expenditures for marketing and sales, subscriber acquisition, and revenue sharing with OEMs. These costs have nothing to do with the satellite network. Instead, these generally relate to Sirius XM's efforts to acquire customers. I find no basis in economics to support the view that the rate paid by Sirius XM to sound recording copyright-holders should be impacted by how Sirius XM elects to market its service to consumers or how the company chooses to share its revenues

[65] Alternatively, copyright-holder compensation would increase as Sirius XM became more efficient and its costs declined. This outcome is similarly without economic basis.

[66] Noll Report, Table 3.

on the back-end with automobile OEMs.[67] At most, these costs are relevant only with respect to the possible disruption on Sirius XM's forward looking viability that would result from implementation of the rates proposed by SoundExchange.

E. Steps 4 and 5: Rate Calculations

79. The final two steps of Dr. Noll's second benchmarking approach involve the calculation of a royalty rate for Sirius XM. As discussed above, the inputs feeding into the calculation are deeply flawed, and consequently, the calculation itself yields a rate that should be rejected.

V. Concluding Remark

80. To conclude, I wish to address briefly a question posed by Judge Roberts during my direct hearing testimony. To paraphrase, Judge Roberts asked about the possible implications of including ad-supported (free) non-interactive streaming services in the interactivity adjustment I presented in my written direct testimony. Recall that the objective of this exercise was to obtain a reasonable estimate of the incremental value consumers assign to interactivity. The most straightforward and defensible way to derive such an estimate is to identify two services available to consumers in the marketplace that are as close to each other as possible in pertinent characteristics other than the presence or absence of interactivity. In my view, a comparison of the retail prices of subscription interactive services and subscription (paid) non-interactive services satisfy this objective – the services differ only with respect to interactivity.

[67] Dr. Noll agrees that internet music services also have subscriber acquisition costs, but he seems to think that the Sirius XM costs are different simply because they are larger. "Q: Okay. And we can agree, can't we, that webcasters probably also spend money to acquire subscribers? A: Not like this. Q: But they do spend money? A: Well, yes, but its nothing like this. I mean, there's – there's no counterpart like this." 6/6/12 Tr. 438:4-11 (Noll). The idea that a category of costs must be taken into account for one service rather than another, simply because the costs are greater for the first service, has no sound economic basis.

81. To introduce ad-supported non-interactive streaming services would, in my view, needlessly confound the exercise. This is so because interactivity would cease to be the only difference between the two services – the presence or absence of commercials would also need to be accounted for. In other words, the exercise would no longer effectively isolate the incremental value of interactivity, which again is the ultimate objective.

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

Date: July 2, 2012

Janusz A. Ordover

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

REBUTTAL 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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APPENDICES A - B

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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. My credentials are summarized in the Corrected Testimony of Thomas Z. Lys, In the Matter of: Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services, Docket No. 2011-1 CRB ("Affirmative Testimony" or "Lys Testimony").

3. My curriculum vitae, including a list of prior testimony, are attached as Appendix A to my Affirmative Testimony.

B. Statement of the Assignment

4. I have been retained by counsel for SoundExchange as an expert witness in connection with the above-referenced matter.[1] I submitted Corrected Expert Testimony on March 26, 2012.

5. I have been asked to opine on the testimonies submitted in this matter by David Stowell ("Mr. Stowell") and David Frear ("Mr. Frear"), as well as the economic components of Mel Karmazin's ("Mr. Karmazin's") testimony, the revenue definition contained within Sirius XM's rate proposal, and the reliability of Roger Noll's ("Dr. Noll's") "unique cost" analysis.

C. Summary of Conclusions

6. 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:

   - Nothing in the testimony of Sirius XM witnesses that I have reviewed alters my original conclusion 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's internal forecasts plainly show that the company can easily afford to pay the royalty rate proposed by SoundExchange. Equity analyst projections show the

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

same thing, and Sirius XM's attempts to portray those projections as unduly optimistic are flawed.

- Sirius XM has been able to pass through prior royalty rate increases to its subscribers and has indicated its intent to do so in the future, by way of either price increases or the U.S. Music Royalty Fee. If Sirius XM is successful in passing most or all of the royalty increases through to subscribers, as it projects, the rates proposed by SoundExchange will have an immaterial impact on the company's financial performance. Thus, the impact of the proposed royalty rates would be significantly less than the amounts I documented in my Affirmative Testimony, further reinforcing my conclusion that the proposed royalty rate schedule would not be disruptive to Sirius XM's business.

- Sirius XM's witnesses have a misguided focus on Sirius XM's overall likelihood of business disruption rather than any incremental change in the likelihood of disruption associated with the proposed rates. Sirius XM's witnesses simply do not link the potentially disruptive future events to the impact of a rate increase, other than in the most general sense that the lower the rate, the more money Sirius XM will have on hand to use in an emergency (assuming Sirius XM does not use the money in the interim to distribute to equity holders or to acquire new companies or assets).

- The future events that Sirius XM witnesses posit as potentially disruptive are unlikely to occur, or unlikely to substantially slow Sirius XM's growth, according to the public statements of Sirius XM's own witnesses. The evidence adduced by Sirius XM in this litigation in an effort to portray those events as likely is not reliable.

- The cumulative loss metrics that Sirius XM's experts point to (negative retained earnings, negative cumulative cash flows, etcetera) are not indicative of losses (if any) suffered by Sirius XM's current shareholders. To the contrary, shareholders who currently own Sirius XM's stock are more likely than not to have (unrealized) capital gains. Therefore, giving any considerations to those cumulative loss metrics would not allow past shareholders who actually suffered the losses to recoup them but simply provide a windfall gain to existing Sirius XM shareholders.

- From an accounting and auditing perspective, Sirius XM's revenue definition is deficient and should be rejected.

- Dr. Noll's analysis of "unique costs of delivery" is unreliable.

II. SIRIUS XM'S DISRUPTION TESTIMONY IS REBUTTED BY SIRIUS XM'S OWN INTERNAL PLANNING DOCUMENTS AND PUBLIC STATEMENTS

7. The central premise of Sirius XM's disruption testimony is that any increase in the royalty rate will significantly increase the likelihood that Sirius XM's business will be disrupted.[2] This testimony is plainly rebutted by Sirius XM's own internal planning documents, which demonstrate that SoundExchange's proposed rate increase poses little risk, if any, of disruption to Sirius XM's business. Sirius XM's own analyses show that Sirius XM will likely attain billions of dollars in adjusted EBITDA and free cash flow over the coming rate term under SoundExchange's proposed rate increase. Indeed, even in a "worst-case" scenario projected by the company, where Sirius XM loses [[redacted]], Sirius XM's own analyses show that it will still achieve positive adjusted EBITDA and free cash flow in every single year of the rate term. In short, contrary to Sirius XM's testimony presented to this Court by Mr. Stowell, Mr. Karmazin, and Mr. Frear, there is little chance that the rate increase proposed by SoundExchange will disrupt Sirius XM's business.

8. Through discovery, I was able to obtain internal forecasts from Sirius XM for its performance through 2016, including both a "baseline" (or "conservative") scenario and a "downside" scenario.[3] In my view, an excellent way to test the disruption claims put forward by Sirius XM is to use Sirius XM's own internal analyses as to its likely performance during the upcoming rate term. This is especially true where Sirius XM has provided multiple performance scenarios, including both a "baseline" scenario and "downside" scenario, which Sirius XM describes as "[[redacted]

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2 Written Direct Testimony of David P. Stowell, November 28, 2011 (SXM Dir. Trial Ex. 18) ("Stowell Testimony"), p. 22 ("I have concluded that any increase to the royalty rate would substantially increase the likelihood of disruption."); Written Direct Testimony of David J. Frear, November 28, 2011 (SXM Dir. Trial Ex. 12) ("Frear Testimony"), p. 23 ("An increase in the royalty rate . . . significantly increases the likelihood of Sirius XM, once again, facing a potential disruption of its business."); Written Direct Testimony of Mel Karmazin, November 28, 2011 (SXM Dir. Trial Ex. 19) ("Karmazin Testimony"), p. 19 ("To increase the rate by any measure could have a disruptive effect on Sirius XM's business, and the rate set must account for the fragile environment in which Sirius XM operates.").

3 SXM_CRB_DIR_00031738 (SX Trial Ex. 9).

[redacted].”[4]

9. Accordingly, to test Sirius XM's disruption claims, I analyzed the effect of SoundExchange's proposed royalty rates on projected adjusted EBITDA and free cash flow using Sirius XM's internal forecasts. I completed this analysis assuming that (a) Sirius XM will pay royalties on 100 percent of total revenue, which as noted in my earlier report, is not historically accurate, and (b) that Sirius XM will not pass any of the increased royalty expenses on to subscribers in the form of the U.S. Music Royalty Fee, which as described in Section VI is contrary to Sirius XM's past practice and [[redacted]].[5]

10. Nevertheless, even with these highly conservative assumptions, Sirius XM's projected EBITDA under the projections included in Sirius XM's 2011 "baseline" scenario would be $[[redacted]] million in 2012, $[[redacted]] million in 2013 (the first year of the new royalty rate) and $[[redacted]] million in 2016 (the fourth year of the proposed new royalty rate).[6] Under the projections included in Sirius XM's 2011 "downside" scenario, Sirius XM's projected EBITDA would be $[[redacted]] million in 2012, $[[redacted]] million in 2013 (the first year of the new royalty rate) and $[[redacted]] million in 2016 (the fourth year of the new royalty rate).[7] All of these figures are [[redacted]] than Sirius XM's actual adjusted EBITDA for 2011 of $731 million.[8]

11. Similarly, Sirius XM's projected free cash flow using Sirius XM's 2011 "baseline" scenario would be $[[redacted]] million in 2012, $[[redacted]] million in 2013 (the first year of the new royalty rate) and $[[redacted]] million in 2016 (the fourth year of the new royalty rate). Under Sirius

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4 SXM_CRB_DIR_00031738 (SX Trial Ex. 9). The baseline plan itself states that it [[redacted]].”

5 See Appendix A.

6 SXM_CRB_DIR_00031738 (SX Trial Ex. 9).

7 SXM_CRB_DIR_00031738 (SX Trial Ex. 9). As this document explains: [[redacted]] See Appendix A.2.

8 Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 37 (SX Ex. 231-RP).

XM's 2011 "downside" scenario, Sirius XM's projected free cash flow would be $[[redacted]] million in 2012, $[[redacted]] million in 2013 (the first year of the new royalty rate)[9] and $[[redacted]] million in 2016 (the fourth year of the new royalty rate).[10] Again, all of these figures are [[redacted]] than Sirius XM's actual free cash flow for 2011 of $416 million.[11]

12. I completed identical analyses using 2010 internal forecasts from Sirius XM, which Sirius XM shared with the credit ratings agencies in October 2010.[12] Using these forecasts, my conclusions remain the same: SoundExchange's proposed rates will not have a disruptive impact on Sirius XM. In fact, this holds true even using Sirius XM's 2010 "downside" scenario, which assumes among other things, that [[redacted]].[13] On top of that, I add the conservative assumptions that Sirius XM would pay on 100 percent of total revenue and that it will not pass any additional royalty expenses on to subscribers (via the U.S. Music Royalty Fee or otherwise). Even based on all of these highly conservative assumptions, under Sirius XM's "downside" projections, it will [[redacted]][14] during the upcoming rate term with the royalty rate increases that SoundExchange proposes. This analysis suggests, contrary to Sirius XM's testimony, that the likelihood of disruptive impact from SoundExchange's proposed royalty

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9 See Appendix A.1.

10 See Appendix A.2.

11 Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 37 (SX Ex. 231-RP).

12 SXM_CRB_DIR_00021267 (SX Trial Ex. 14); SXM_CRB_DIR_00030996 (SX Trial Ex. 12); SXM_CRB_DIR_00031079 (SX Trial Ex. 13). As discussed in more detail below, the fact that Sirius XM shared its internal projections with the credit ratings agencies in a presentation in connection with a new debt offering suggests that Sirius XM believed these projections to be reasonable. Indeed, it would be a serious violation of the securities laws for Sirius XM to share such projections with the ratings agencies if it did not believe them to be reasonable. See Appendices A.3, A.4, and A.7.

13 SXM_CRB_DIR_00031079, p. 3 (SX Trial Ex. 13). Annual Stockholder Meeting presentation, Sirius XM Radio, Inc., Form 8-K dated May 22, 2012, pp. 10, 45 (SX Ex. 211-RP).

14 See Appendix A.4.

rates is minimal.

13. Sirius XM also produced a 2012 budget that includes an [[redacted]].[18]

14. Perhaps recognizing that their own internal forecasts undermine their claim of business disruption, Mr. Stowell and Mr. Frear downplay Sirius XM's forecasting ability by comparing the company's pre-merger and pre-crisis forecasts to actual results.[19] However, as Figures 1-3 show, Sirius XM's post-crisis and post-merger forecasting errors do not resemble

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15 SXM_CRB_DIR_00089920, p. 38 (SX Trial Ex. 15).

16 SXM_CRB_DIR_00089920, p. 38 (SX Trial Ex. 15).

17 SXM_CRB_DIR_00089920, p. 38 (SX Trial Ex. 15).

18 Sirius XM's criterion for [[redacted]]. SXM_CRB_DIR_00090027.

19 Frear Testimony, pp. 14-15; Stowell Testimony, p. 21.

those of the older forecasts (as displayed in Mr. Frear's charts).[20] Just as the case of equity analysts, the forecasting errors of Sirius XM's internal post-crisis forecasts are smaller, and the projections more often predicted a more *pessimistic* outcome than was actually realized. As I show in Appendix A.1, an analysis based on Sirius XM's projections as a starting point also concludes that the royalty rates proposed by SoundExchange are not expected to disrupt the company's business.

Figure 1 [RESTRICTED]

[redacted]

20 Frear Testimony, pp. 15-17.

Figure 2 [RESTRICTED]

[redacted]

Figure 3 [RESTRICTED]

[redacted]

15. Additionally, Mr. Frear states that "the utter failure of anyone to predict... that Sirius XM would find itself on the precipice of bankruptcy within 12 months of the close of the proceeding" is "good evidence" of the "difficulty in forecasting the future of the Company,"[21] but this statement conflicts with the company's internal projections that he later highlights. In 2009, the year of the near-bankruptcy, Sirius XM [[redacted]].[22] It simply needed to refinance during a severe credit crisis that surprised almost all market participants.

16. As the foregoing discussion demonstrates, Sirius XM's position that its own internal forecasts are not to be believed cannot be reconciled with the available evidence, and those forecasts show that the royalty rates proposed by SoundExchange are not likely to disrupt Sirius XM's business.

17. Contrary to Mr. Frear's testimony, the evidence suggests that Sirius XM does, in fact, rely on its long-term projections.[23] Sirius XM has shared its internal long-range projections with credit ratings agencies during three presentations with those agencies in August 2009, January 2010, and October 2010.[24] Each of these meetings occurred shortly before Sirius XM issued hundreds of millions of dollars in debt, and each presentation occurred in proximity to a credit upgrade by Moody's or S&P. In fact, in all three rating upgrade announcements that Moody's published in regard to Sirius XM's debt issuances, Moody's noted that one of the factors considered in assigning the upgrade was "projected performance over the near to intermediate term."[25] These presentations all provide internal five-year company forecasts that were labeled as "Sirius XM Projections," "Financial Projections," or "Company

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21 Frear Testimony, pp. 14-15.

22 Frear Testimony, pp. 16-17.

23 Frear Testimony, p. 14.

24 SXM_CRB_DIR_00021267-21304 at SXM_CRB_DIR_00021297 - 21299 (October 2010 Presentation) (SX Trial Ex. 14); SXM_CRB_DIR_00021075-21111 at SXM_CRB_DIR_00021110 (January 2010 Presentation) (SX Ex. 233-RR); SXM_CRB_DIR_00089872-89910 at SXM_CRB_DIR_89902 (August 2009 Presentation).

25 See "Moody's assigns Caa2 rating to Sirius XM's Secured Notes," Moody's Investors Service, August 13, 2009; "Moody's assigns Caa2 rating to Sirius XM's proposed unsecured notes," Moody's Investors Service, March 12, 2010; "Moody's Upgrades Sirius XM's CFR to B3, Assigns B3 Rating to Proposed Unsecured Notes," Moody's Investors Service, October 13, 2010.

Projections."[26] As I understand the SEC's disclosure requirements, Sirius XM could not have shared these five-year projections in connection with a debt offering without violating the securities laws, if it believed the projections to be unreliable.

18. Moreover, Mr. Frear has repeatedly shared the company's long-term projections with the Board of Directors, especially in connection with the company's capital structure planning.[27] For example, based on these long-range plan projections, Mr. Frear has told the Board of Directors that "[[redacted]]."[28] Mr. Frear and Mr. Karmazin repeated this assessment to investors shortly thereafter in Sirius XM's fourth quarter 2010 earnings call where Mr. Frear explained: "I just want to reemphasize the point that Mel [Karmazin] made in there that we believe that we will very comfortably cover our 2013 to '15 [debt] maturities out of the cash flow of the business."[29] (Notably, these are the exact same debt maturities that Mr. Frear has told the Court pose "significant risks to the Company" for the upcoming rate term.)[30] Again, given the SEC's disclosure requirements, Mr. Frear could not have made this statement – that the company's future cash flow will easily cover its debt maturities three to five years later – if he believed the company's long-term projections to be unreliable. In short, the evidence demonstrates that the company has repeatedly relied on its long-term projections; especially where doing so benefits the company.

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26 In the October 2011 presentation, Sirius XM offered both its "baseline" and "downside" projections directly from its 2010 long-range scenario. See SXM_CRB_DIR_00021267-21304 at SXM_CRB_DIR_00021297 - 21299 (October 2010 Presentation) (SX Trial Ex. 14); SXM_CRB_DIR_00031079, p. 24 (SX Trial Ex. 13).

27 SXM_CRB_DIR_00015551-15592 at SXM_CRB_DIR_00015585 (Jan. 2011 Board presentation) (SX Ex. 234-RR); SXM_CRB_DIR_00015682-15686 at SXM_CRB_DIR_00015686 (Q4 2010 board presentation on capital structure) (SX Ex. 235-RR); SXM_CRB_DIR_00015885-15923 at SXM_CRB_DIR_00015918 (Feb 2010 Board presentation) (SX Ex. 236-RR); SXM_CRB_DIR_00016102-16133 at SXM_CRB_DIR_00016119-16125 (2009 Q3 Finance Long Range Plan board presentation) (SX Ex. 237-RR).

28 SXM_CRB_DIR_00015682-15686 at SXM_CRB_DIR_00015686 (Q4 2010 board presentation on capital structure) (SX Ex. 235-RR).

29 "Sirius XM Q4 2010 Earnings Call," February 15, 2011, SXM_CRB_DIR_00020688-20698 at SXM_CRB_DIR_00020695 (SX Ex. 228-RP). Mr. Karmazin made the same point: "So in taking a look at what our longer-term debt profile is, you really do need to factor in what we will be going into those years with in cash on those balance sheets. And I believe that where we are today, certainly, we don't see any impediment to the debt maturities not being able to easily being handled by our cash that we would have on hand."

30 Frear Testimony, p. 12.

III. SIRIUS XM'S ATTEMPTS TO DISCREDIT THE FORECASTS OF EQUITY ANALYSTS ARE UNAVAILING

19. Apparently anticipating (correctly) that SoundExchange would rely in its direct written testimony on the forecasts of equity analysts (which, like Sirius XM's internal forecasts, undermine the disruption claim), Sirius XM has argued that such forecasts are unduly optimistic. These arguments do not withstand scrutiny.

20. It should first be noted that Sirius XM's projections are [[redacted]] with the Morgan Stanley projections that I used in my written direct testimony. Attachments 4 and 5 compare Sirius XM's internal forecasts with those from Morgan Stanley. Sirius XM's 2011 "baseline" adjusted EBITDA projection for 2012 through 2016 is [[redacted]]. With respect to free cash flow, both Sirius XM's "baseline" and "downside" scenarios are [[redacted]].[31] This provides additional evidence that the Morgan Stanley projections I used for my written direct testimony are [[redacted]], and further supports that Sirius XM's claims of disruption in this proceeding are exaggerated.

A. Mr. Stowell's View of Equity Analyst Optimism is Unfounded

21. Mr. Stowell argues that equity analysts' projections are often "unduly optimistic," stating that "history has shown that many equity analysts are biased and often forecast unrealistically favorable financial results for the companies that they cover."[32] However, the reasons he cites for this phenomenon have been addressed and largely eliminated through regulations, including (a) the SEC's adoption in 2000 of Regulation FD, which requires companies to simultaneously disclose to the public any material nonpublic information that it shares with stock analysts or security market professionals,[33] and (b) additional provisions adopted by the SEC in 2003, i.e., in the wake of the WorldCom and Enron scandals, in order to remove or

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31 Sirius XM forecasts "free cash flow," while Morgan Stanley forecasts "free cash flow to equity." In Attachment 5, I have adjusted the Morgan Stanley free cash flow projections to reflect Sirius XM's method of calculating free cash flow to ensure a consistent comparison.

32 Stowell Testimony, p. 17.

33 "Rule 100 – General Rule Regarding Selective Disclosure," The University of Cincinnati College of Law Securities Lawyer's Deskbook, available at http://taft.law.uc.edu/CCL/regFD/FD100.html, accessed on June 12, 2012.

mitigate analyst conflicts of interest.[34] Indeed, in his textbook Mr. Stowell acknowledges and describes the effects of Regulation FD, stating that "it levels the playing field, enabling all investors to receive the same information at the same time."[35] Similarly, his textbook lists a number of the SEC's 2003 reforms and states that "[b]y insulating research analysts from Investment Banking Division pressure, [the reforms were] designed to ensure that stock recommendations are not tainted by efforts to obtain investment banking fees."[36]

22. In addition, Mr. Stowell's description of academic research about analyst forecast accuracy is incomplete and misleading. Published peer-reviewed research that Mr. Stowell ignores shows that, while analyst forecasts were consistently optimistic in the early 1980's, the forecasts had become unbiased or slightly pessimistic in the late 1990's and early 2000's.[37] The movement away from optimistic analyst forecasts is consistent with the regulatory changes I discussed above, along with the increased attention paid to analyst forecasts, increased competition among forecasters, and more cautious guidance from certain managers who want their companies to "beat" analysts' forecasts.[38]

23. Published research also shows that the optimal analyst forecast is the median, rather than the mean (or average).[39] The Morgan Stanley EBITDA projections I present in Attachment 8 of my Affirmative Testimony are at (or below) the median of the projections contained within the Thomson One research portal. See Figure 4 below. This implies that the Morgan Stanley forecasts on which I based my analysts are, if anything, conservative. Additionally, the

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34 "Fact Sheet: SEC Approval of SRO Rule Amendments on Research Analyst Conflicts of Interest," U.S. Securities and Exchange Commission, available at http://www.sec.gov/news/extra/sroanalysts-facts.htm, accessed on June 4, 2012, and "Commission Approves Rules to Address Analyst Conflicts; SEC Also Requires EDGAR Filings by Foreign Issuers," U.S. Securities and Exchange Commission, available at http://www.sec.gov/news/press/2002-63.htm, accessed on June 4, 2012.

35 Stowell, David, *An Introduction to Investment Banks, Hedge Funds, and Private Equity: The New Paradigm*, 2010, p. 123.

36 Stowell, David, *An Introduction to Investment Banks, Hedge Funds, and Private Equity: The New Paradigm*, 2010, p. 123.

37 Brown, Lawrence D., "A Temporal Analysis of Earnings Surprises: Profits versus Losses," Journal of Accounting Research, September 2001, pp. 221-222.

38 Brown, Lawrence D., "A Temporal Analysis of Earnings Surprises: Profits versus Losses," Journal of Accounting Research, September 2001, p. 225.

39 The Morgan Stanley projections that I use as a starting point for my analysis were at or below the median. Gu, Zhaoyang and Joanna Shuang Wu, "Earnings Skewness and Analyst Forecast Bias," Journal of Accounting and Economics, 2003, pp. 5, 14, 15 and Table 1.

forecast errors for Sirius XM's EBITDA and free cash flows would have to be many times greater than typical forecasting errors documented in this research to change the conclusions of my analysis.[40]

Figure 4
Sirius XM
Analyst Projections of EBITDA
2011 - 2015

Analyst	2011	2012	2013	2014	2015
CALCULATED MEDIAN	**$ 734.7**	**$ 927.0**	**$1,194.6**	**$1,414.9**	**$1,646.4**
MORGAN STANLEY	**$ 734.7**	**$ 917.4**	**$1,107.3**	**$1,414.9**	**$1,646.4**
BARRINGTON RESEARCH	$ 715.0	$ 860.0	$ 1,203.2	N/A	N/A
BGB SECURITIES, INC.	$ 736.0	$ 863.8	N/A	N/A	N/A
EVERCORE PARTNERS	$ 732.0	$ 964.0	$ 1,171.0	$ 1,580.0	$ 1,791.0
GABELLI & COMPANY	$ 767.0	$ 988.0	$ 1,350.0	N/A	N/A
JANCO PARTNERS, INC.	$ 738.9	$ 942.7	$ 1,224.0	$ 1,478.6	$ 1,738.1
LAZARD CAPITAL MARKETS	$ 751.0	$ 935.0	$ 1,210.0	$ 1,529.0	$ 1,737.0
MAXIM GROUP	$ 741.0	$ 984.0	$ 1,238.0	N/A	N/A
MILLER TABAK & CO., LLC	$ 723.0	$ 889.0	$ 1,186.0	$ 1,306.0	$ 1,448.0
PIVOTAL RESEARCH GROUP	$ 725.0	$ 927.0	$ 1,133.0	$ 1,357.0	$ 1,593.0
WUNDERLICH SECURITIES, INC.	$ 716.9	$ 861.6	$ 1,060.8	$ 1,307.5	$ 1,556.6

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 EBITDA (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,
[3] The Calculated Median is the median of reported projections.

B. Mr. Stowell's Comparison of Forecasts to Actual Results is Misleading

24. Mr. Stowell states that equity analysts were overly optimistic when forecasting the prospects of Sirius XM during 2007 and 2008.[41] In his Exhibits 7, 8, and 9, Mr. Stowell compares forecasts of subscribers, revenue, and stock price that were estimated *before* the unanticipated

40 Gu, Zhaoyang and Joanna Shuang Wu, "Earnings Skewness and Analyst Forecast Bias," Journal of Accounting and Economics, 2003, pp. 10, 14. The authors show that the median minimizes the mean absolute forecast error (in fact, the median error within their sample of 57,728 observations was effectively zero).

41 Stowell Testimony, p. 18.

financial crisis[42] to the metrics that actually materialized in the wake of that sudden and severe economic downturn.[43] While Mr. Stowell attributes the forecasting errors to excessive optimism, it is much more likely that analysts simply did not foresee the financial crisis.[44]

25. Mr. Stowell's own exhibits show in two ways that this alternative explanation is more likely to be the true cause of the forecasting errors.[45] First, Sirius XM's actual results in 2007 (before the crisis had reached its height) were rather close to the pre-crisis forecast. Second, analysts lowered their forecasts as the crisis unfolded.

26. The Stowell Testimony does not compare projections made *after* the financial crisis to Sirius XM's actual results, even though such evidence is readily available. The projections he selects also do not include a single forecast formed *after* Sirius and XM had formed the merged entity that exists today.[46] As Figures 5 and 6 demonstrate below, analyst forecasts made after the crisis (and post-merger) projections do not resemble the results shown in Mr. Stowell's exhibits – even for the measures he chose for this particular analysis.[47]

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42 Sirius XM's witnesses appear to agree that the crisis was sudden. In his Affirmative Hearing Testimony, Mr. Frear described the fall of the credit markets as "swift and sharp." Frear Affirmative Hearing Testimony, p. 743. In his written testimony, he also states that "[n]o one, myself included, anticipated at the time of the last proceeding that the Company would be unable to refinance the Notes at all." Frear Testimony, p. 4.

43 All of the projections Mr. Stowell uses were also published prior to the merger of Sirius and XM.

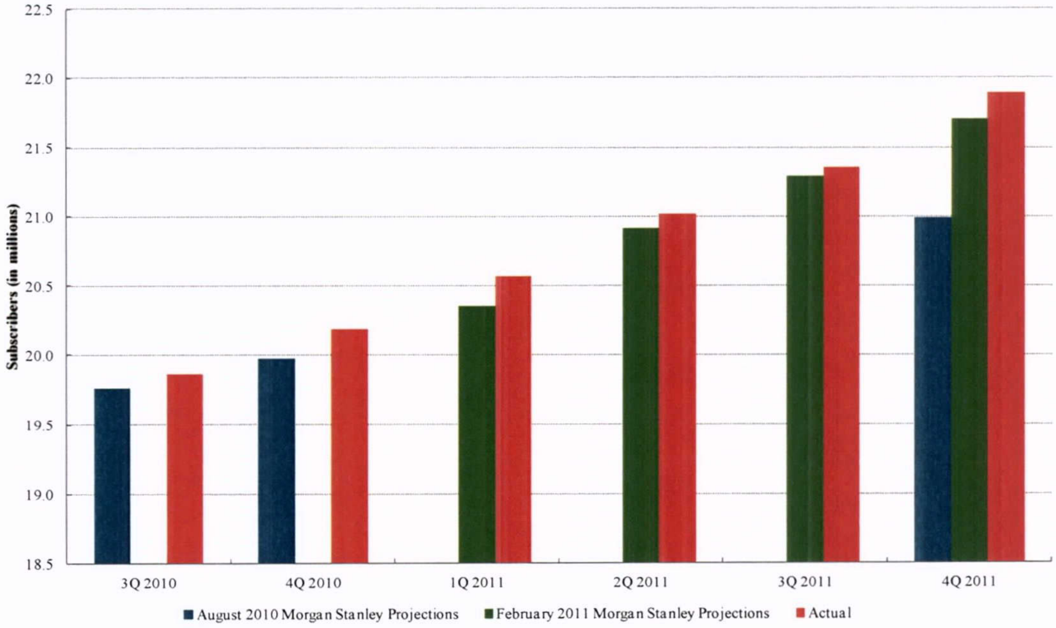
44 According to Mr. Stowell's own source, the Chicago Board Options Exchange Market Volatility Index, investors in 2006 through 2008 anticipated a calm and non-volatile future – at one point in this timeframe the index was the lowest it had ever been since the CBOE changed its calculation methodology in 2003, and the lowest since 1993 before the methodology change. Mr. Frear also testified that "the fall of the credit markets was swift and sharp." See Chicago Board Options Exchange, "The CBOE Volatility Index – VIX," 2009, available at https://www.cboe.com/micro/vix/vixwhite.pdf; VIX Index obtained from Bloomberg L.P. See also Frear Affirmative Hearing Testimony, p. 743.

45 Stowell Testimony, p. 19.

46 The Merger occurred in July 2008. See Lys Testimony, p. 4.

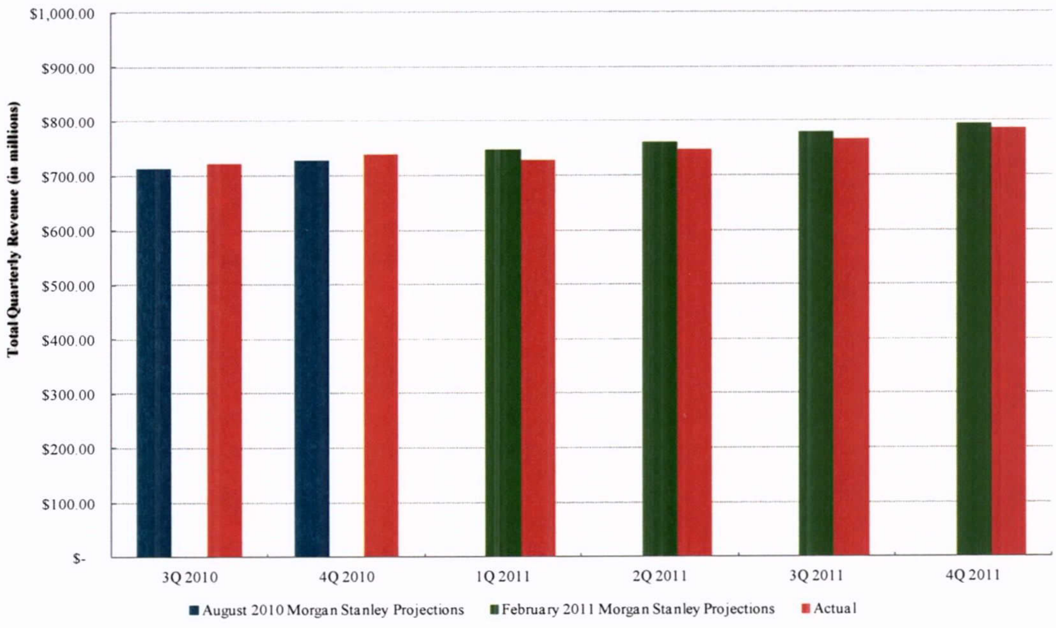
47 Gober, David, Benjamin Swinburne, and Cynthia Rupeka, Morgan Stanley, "Sirius XM Radio Inc.," August 29, 2010, pp. 12, 13, and 15; Gober, David, Benjamin Swinburne, and Cynthia Rupeka, Morgan Stanley, "Sirius XM Radio Inc.," February 2, 2011, pp. 15, 20; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2010, p. 45; Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 36; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2011, pp. 24, 31; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended June 30, 2011, pp. 23, 32; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2011, p. 31.; Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, pp. 35, 37.

Figure 5
Sirius XM
Post-Crisis Morgan Stanley Projections & Actual Performance
End of Period Subscribers
3Q 2010 - 4Q 2011



Note: See Attachment 6 Notes.

Figure 6
Sirius XM
Post-Crisis Morgan Stanley Projections & Actual Performance
Total Revenue
3Q 2010 - 4Q 2011



Note: See Attachment 7 Notes.

27. Perhaps more importantly, Mr. Stowell displays subscription and revenue data in an attempt to support his claim that 2006, 2007, and 2008 forecasts exhibit "a significant overestimation of the financial future of Sirius XM,"[48] but provides no rationale why he opts not to show the forecasting success of the more-important EBITDA and free cash flow measures (or even the EBIT measure he prescribes).[49] When comparing Morgan Stanley's forecasted EBITDA and free cash flow measures from a May 2008 research report to Sirius XM's actual realized performance, the results are entirely opposite of those presented by Mr. Stowell (see figures 7 and 8 below).[50] The conservative results contained within this Morgan Stanley report, which was published nearest to the date of the Sirius and XM merger, actually projects the performance of the merged Sirius XM entity that exists today, and incorporates more information from the financial crisis, provides compelling evidence that Morgan Stanley's forecasts are reliable.[51]

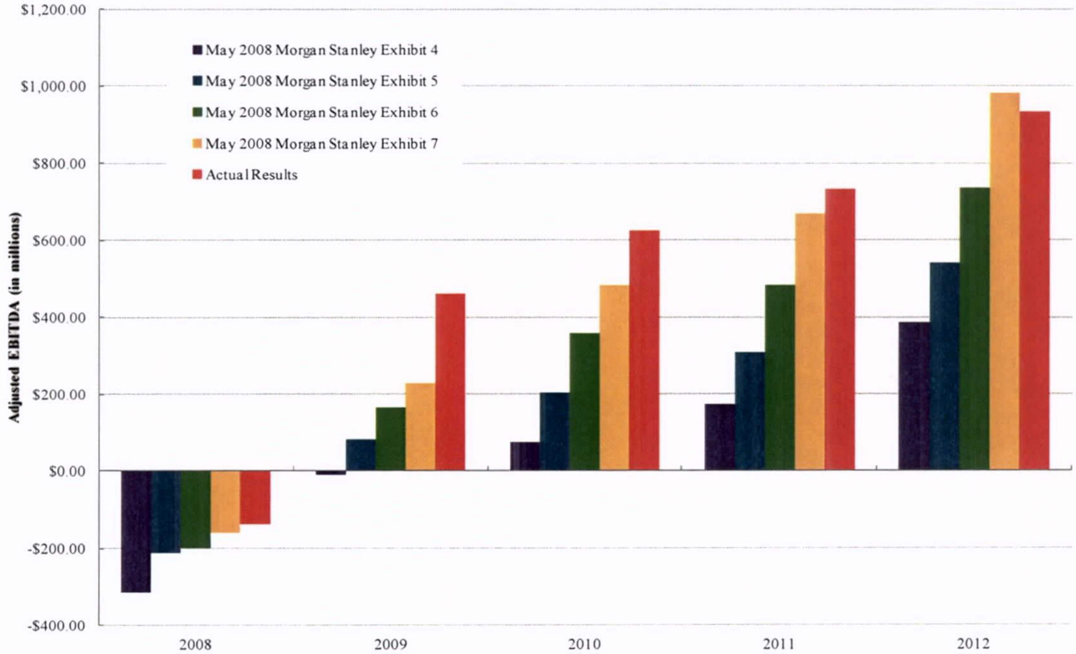
48 Stowell Testimony, p. 18.

49 Stowell Testimony, p. 14.

50 This conclusion also holds for the EBIT measure used by Mr. Stowell.

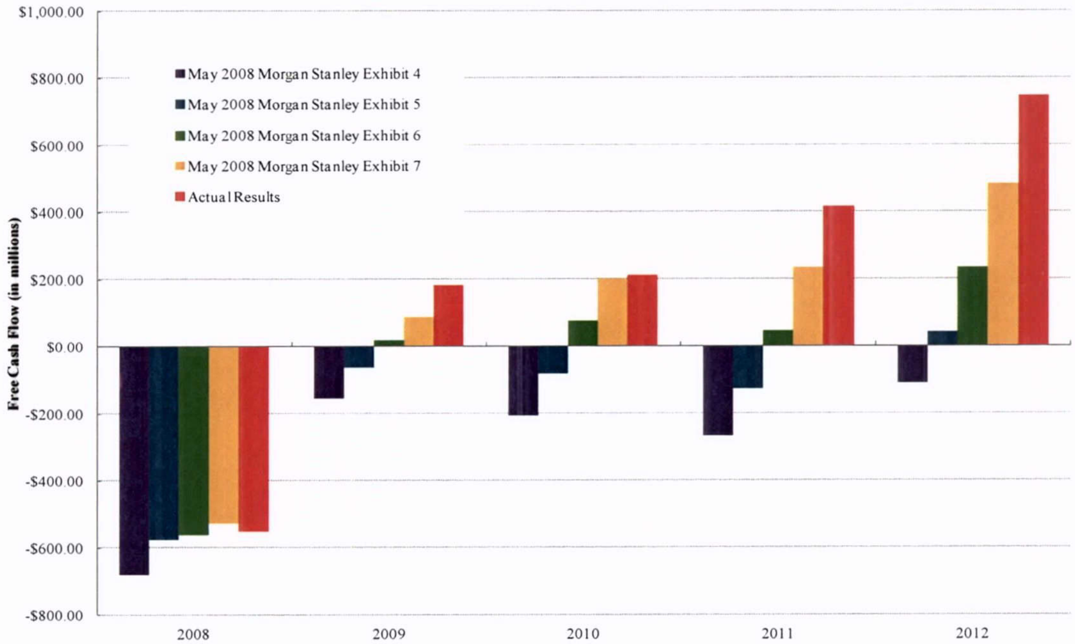
51 This report contained four scenarios, each of which projected Sirius XM's financial performance while realizing varying levels of merger synergy. These different projections are labeled by their exhibit name within the Morgan Stanley report. Projection data obtained from May 30, 2008 Morgan Stanley report. See Swinburne, Benjamin and Chad Harris, Morgan Stanley, "Sirius Satellite Radio: Updating Model for 1Q08 Results," May 30, 2008, pp. 6-9.

Figure 7
Sirius XM
2008 Morgan Stanley Projections vs. Actuals
Adjusted EBITDA



Notes: See Attachment 8 Notes.

Figure 8
Sirius XM
2008 Morgan Stanley Projections vs. Actuals
Free Cash Flow



Notes: See Attachment 9 Notes.

C. Mr. Stowell's "Distribution of Investment Ratings" Exhibit is Misleading

28. Exhibit 6 of Mr. Stowell's testimony presents a "Distribution of Investment Ratings" that he presents as evidence of a "tendency to be unduly optimistic."[52] He calculates an average of 61 percent of rated companies with "Buy" recommendations, but offers no opinion about the percentage of "Buy" ratings he believes would provide evidence that analysts were unbiased rather than optimistic.

29. Mr. Stowell also fails to acknowledge that equity analysts do not rate the entire universe of stocks. For example, the New York Stock Exchange/Euronext ("NYSE") lists approximately 8,000 stocks[53] and the NASDAQ lists over 3,600 stocks[54] (a total of about 11,600); Morgan Stanley covers 2,828 companies.[55] While Mr. Stowell notes that Morgan Stanley issued a "Buy" rating for 40 percent of the companies rated,[56] he fails to acknowledge that the "Buy-rated" companies constitute only 9.7 percent of the companies listed on NYSE and NASDAQ.[57] Research shows that analysts prefer to follow companies that have good growth prospects and that they do not follow, or even drop, companies that do not. Hence, the companies that receive "Buy" recommendations may indeed be those that are likely to perform better than the entire universe of covered and non-covered companies.[58]

30. Mr. Stowell's 61 percent average includes Pivotal Research Group, which issued a "Buy" rating for 90 percent of the companies considered – the highest percentage in Mr. Stowell's sample.[59] Pivotal, however, rated only ten companies in total.[60] Thus, Pivotal rated only 0.08

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52 Stowell Testimony, p. 18.

53 "Quick Facts," NYSE Euronext, available at http://www.nyx.com/en/who-we-are/quick-facts, accessed on June 12, 2012.

54 "Listing With NASDAQ OMX," NASDAQ OMX, available at www.nasdaqomx.com/listing/, accessed on June 12, 2012.

55 Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, p. 22.

56 Stowell Testimony, p. 18.

57 The analysts at Morgan Stanley (i.e., the firm I most heavily relied upon in my direct report) have the lowest percentage of buy recommendations among all the analyst firms listed by Mr. Stowell. See Stowell Testimony, p. 18.

58 McNichols, Maureen and Patricia C. O'Brien, "Self-Selection and Analyst Coverage," Journal of Accounting Research, 1997, pp. 168, 172, and 197.

59 Stowell Testimony, p. 18.

percent of the NYSE and NASDAQ as a "Buy" (i.e., 9 out of 11,600 companies).

31. The first quarter of 2012 – immediately following Mr. Stowell's report submission – saw general growth in stock prices.[61] The prices of 429 of the companies included in the Standard & Poor's 500 index – over 85 percent of the index – increased in the first quarter of 2012.[62] *Ex post,* we know that the seemingly optimistic percentage of "Buy" recommendations at the time Mr. Stowell drafted his testimony was justified.

32. Focusing on Sirius XM, the analyses conducted by Sirius XM's own witnesses would motivate a "Buy" recommendation for Sirius XM's stock. Mr. Stowell testified that Sirius XM's stock price can be predicted by its relationship with the auto industry,[63] and Mr. Karmazin publicly stated that auto sales are expected to climb to 14.3 million in 2012.[64] Using these expectations, Mr. Stowell's (admittedly flawed, see below) model predicts a 2012 stock price of $2.24,[65] compared to the $1.77 market price of Sirius XM's stock on the day Mr. Stowell filed his report – a 27 percent expected price increase.[66] Based on the 2016 annual auto sales forecast of 16.6 million that Sirius XM shared with its shareholders in May 2012,[67] Mr. Stowell's model predicts a stock price of $3.19,[68] or an 80 percent increase. While stock prices are not a measure of disruption[69] and Mr. Stowell's model is badly

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60 Wlodarczak, Jeffrey, Pivotal Research Group, "Sirius XM Radio: 3Q Results Solid," November 1, 2011, p. 13.

61 Bloomberg, L.P.

62 The percent was calculated based on the number of index constituents as of June 13, 2012. Phillips 66 was recently spun off, therefore I exclude it from my calculation due to its insufficient stock price history. Bloomberg, LP.

63 Stowell Testimony, p. 8.

64 "SIRI - Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 3 (SX Ex. 221-RP).

65 $2.24 = -3.647 + .412 * 14.3.

66 November 28, 2011 stock price data obtained from Bloomberg, L.P.

67 Annual Stockholder Meeting presentation, Sirius XM Radio, Inc., Form 8-K dated May 22, 2012, p. 44 (SX Ex. 211-RP).

68 $3.19 = -3.647 + .412 * 16.6.

69 In the Matter of Adjustment of Rates and Terms for Preexisting Subscription Services and Satellite Digital Radio Services, Docket No. 2006-1 CRB DSTRA, Rebuttal Testimony of Steven Herscovici, July 24, 2007, p. 34.

flawed,[70] Mr. Stowell's criticisms of "Buy" ratings are contradicted by his own testimony and the statements of Sirius XM witnesses.

D. Mr. Stowell's Skepticism of Equity Analysts Conflicts with His Support of Credit Rating Agencies

33. Mr. Stowell states that he relied on credit agency ratings because they consider downside risk.[71] Mr. Stowell provides no caveat to his reliance on debt analysts and provides only their consideration of downside risk as support for their reliability.[72] Contrary to Mr. Stowell's claim,[73] his criticisms of equity analysts also apply to debt analysts. Furthermore, contrary to the impressions Mr. Stowell creates, equity analysts *do* account for downside risk.[74] In fact, the risks of heightened competition and sensitivity to auto sales are explicitly discussed within the Morgan Stanley report that both Mr. Stowell and I rely on;[75] these are the very downside risk factors Mr. Stowell identifies for Sirius XM.[76]

34. Indeed, even credit rating agencies misgauged the financial health of companies in the financial crisis. Companies with investment-grade ratings, even with Aa3 ratings, defaulted in 2008 and 2009.[77] Moody's assigns the Aa rating to obligations that are "judged to be of high quality and are subject to very low credit risk."[78] Debt analysts have also made errors of the opposite type, as there have been many years in which none of the lowest-rated obligations defaulted.[79] In essence, the financial crisis was unanticipated and extremely severe – hardly a period to test the overall reliability of either equity or credit analysts.

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70 See Appendix B.

71 Stowell Testimony, pp. 4 and 11.

72 Stowell Testimony, pp. 4 and 11.

73 When describing his concerns surrounding equity analysts, Mr. Stowell states that "[t]he same cannot be said for debt analysts and lenders (….)" Stowell Testimony, p. 4.

74 Mr. Stowell does not state which of Sirius XM's risks he concludes were not fully considered by equity analysts.

75 Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, p. 2.

76 Stowell Testimony, pp. 7-11.

77 Moody's Investors Service, "Special Comment: Corporate Default and Recovery Rates, 1920-2010," February 28, 2011, Exhibit 36, p. 30.

78 Moody's Investors Service, "Rating Symbols and Definitions," June 2012, p. 5.

79 Moody's Investors Service, "Special Comment: Corporate Default and Recovery Rates, 1920-2010," February 28, 2011, Exhibit 36, p. 30.

E. Analysts' Projections Inform the Opinions of Mr. Stowell and Mr. Frear

35. Despite his attempt to cast doubt on the reliability of equity analyst reports, in his testimony, Mr. Stowell relies on the projections of Morgan Stanley and Lazard analysts to inform his opinion on Sirius XM's future sources of revenue, subscribers, and growth.[80] He cites Goldman Sachs and Stifel Nicolaus to describe the then-expected merger synergies, cash flow, and margins.[81] In fact, Mr. Stowell relies on the same Morgan Stanley report that is cited in my testimony.

36. Mr. Frear also relies on analyst projections in his testimony. While he fails to include a citation supporting his statement, Mr. Frear relies on automakers and analysts to form his opinion on "[t]he prospects for the strength of the recovery [in U.S. auto sales]."[82]

F. Even Assuming a Level of Optimism in the Analyst Reports, Disruption of Sirius XM's Business Due to a Rate Increase Remains Highly Unlikely

37. Even if one were to assume that future forecasting errors resemble the seeming optimism found in projections of subscribers and revenue made immediately prior to the financial crisis, the proposed rates are not expected to disrupt Sirius XM for several reasons. First, because the rates are tied to revenue, negative shocks to the company's business (and specifically revenue, which Mr. Stowell highlights[83]) would decrease the royalty payments to SoundExchange. Second, even if actual revenues (and therefore, royalty payments) were realized as projected but EBITDA and free cash flow were negatively shocked (an unlikely outcome given the company's 70 percent contribution margin and stable nature of Sirius XM's fixed costs[84]), the company would still be unlikely to be disrupted; growth rate forecasting errors would have to be much larger than typical forecasting errors for Sirius XM to experience EBITDA or free cash flow of zero in each of the years covered under the proposed royalty schedule.[85] Third, as shown in Figures 7 and 8 above, Morgan Stanley has been either accurate or pessimistic in its EBITDA and free cash flow forecasts. Accordingly,

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80 Stowell Testimony, pp. 8-9.

81 Stowell Testimony, p. 15.

82 Frear Testimony, p. 18.

83 Stowell Testimony, p. 19.

84 Lys Testimony, pp. 16 - 18.

85 See additional sensitivity analyses, Appendix A.

in the event Morgan Stanley's current projections "overshoot" revenues and "undershoot" EBITDA and free cash flow in the upcoming period, my analysis *overstates* the impact of the rates.

38. Even in the improbable hypothetical outcome that EBITDA or free cash flow *are* negative in a certain year, Sirius XM would not likely sustain an "adverse impact that is substantial, immediate and irreversible in the short-run,"[86] because of the $1.5 billion in cash and cash equivalents that Sirius XM expects to possess at the time the new rates are enacted.[87]

39. To further demonstrate the robustness of my conclusion that the proposed rates are not expected to disrupt Sirius XM's business, I performed several sensitivity analyses which I present in Appendix A. These analyses are based on a variety of projections, including Sirius XM's internal projections, and provide additional evidence that the Morgan Stanley projections are reasonable and perhaps even conservative. These sensitivity analyses additionally illustrate, contrary to the claims of Sirius XM's witnesses, that the proposed rates would unlikely disrupt the company, even if (a) auto sales *are* lower than currently expected, (b) competition erodes Sirius XM's subscriber base, or (c) the actual revenue, EBITDA, and free cash flow growth rates fall to zero.

40. Another helpful perspective is to compare the historical and projected royalty payments of $[[redacted]] million (2010) and $[[redacted]] million (2012) contained within Mr. Frear's testimony to Sirius XM's current and projected cash on hand.[88] By year-end 2012, Sirius XM expects to possess between $1,200 and $1,500 million in cash and equivalents – enough to pay the entirety of the proposed royalties for several years before even considering future earnings whatsoever. In fact, *$1,500 million in cash would be enough to pay the increased royalties proposed by SoundExchange (i.e., in excess of the current eight percent rate) through the beginning of 2017.*[89] If Morgan Stanley's revenue estimates prove to be optimistic, then Sirius XM's 2012 cash balance could pay the proposed royalties for an even *longer* time period, because the proposed rates are defined as a percentage of revenue.

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86 SDARS I, p. 4097.

87 "SIRI – Q4 2011 Sirius Satellite Radio Earnings Conference Call, Thomson Reuters StreetEvents, February 9, 2012, p. 6 (SX Ex. 224-RP).

88 Frear Testimony, p. 21.

89 See Appendix A.10.

IV. SIRIUS XM'S ATTEMPTS TO CREATE SEEMINGLY OBJECTIVE MEASURES OF FUTURE RISK ARE BADLY FLAWED

A. The Discussion of Sirius XM's Credit Ratings is Misguided

41. Mr. Stowell reviews Sirius XM's credit ratings and concludes the ratings "suggest that there is a realistic possibility that Sirius XM will default on its outstanding debt."[90] This conclusion is irrelevant to an assessment of the proposed royalty rates, however, because there is a realistic possibility that virtually any company will default on its outstanding debt. The receipt of a credit rating above speculative grade[91] does not remove the possibility of default. According to Mr. Stowell's own methodology and data source, even Aaa-rated companies, which possess the highest rating possible, have positive "five-year debt default rates."[92]

42. Mr. Stowell does not assert that the previous or proposed royalty rates have caused Sirius XM to be rated as speculative grade. Rather, he correctly notes that the ratings agencies identify dependence on U.S. automotive sales, consumer discretionary spending growth, and vulnerability to competition as the company's key risks[93] (and *not* royalties paid to SoundExchange).

43. Mr. Stowell bases his forward-looking default expectation on the historical default rates of the various credit ratings.[94] For this reason, in order to conclude that "any increase to the royalty rate would substantially increase the likelihood of disruption to Sirius XM,"[95] he would have to show that the rating agencies would lower Sirius XM's credit rating in the event of a royalty rate increase. Sirius XM's witnesses did not perform such an analysis, but this relationship is unlikely to hold true given the agencies' explanation of Sirius XM's primary risks, as well as the concurrent increases of credit ratings and royalty rates. As

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90 Stowell Testimony, pp. 11-12.

91 Speculative grade bonds are also referred to as "high-yield" bonds, as described in Mr. Stowell's book, or "junk bonds," as described in Mr. Stowell's testimony. See Stowell, David, *An Introduction to Investment Banks, Hedge Funds, and Private Equity: The New Paradigm*, 2010, p. 121; Stowell Testimony, p. 12.

92 Moody's Investors Service, "Special Comment: Corporate Default and Recovery Rates, 1920-2010," February 28, 2011, Exhibit 36, p. 34.

93 Stowell Testimony, p. 11.

94 Stowell Testimony, pp. 11-12.

95 Stowell Testimony, p. 22.

explained in paragraph 94 and Section VII.D, Sirius XM's successful refinancing experience, improved performance, and favorable outlook explain the increased credit ratings.

44. If royalties were driving Sirius XM into distress, one would expect its credit ratings to decrease as the royalty rates increase. However, the concurrent improvement of credit ratings and royalty rate increases demonstrates the opposite experience at Sirius XM, as shown in Attachments 10 and 11.[96] Thus, the evidence from credit ratings rebuts the contention that increased royalty rates are likely to disrupt Sirius XM's business.

45. Furthermore, even if lower royalty rates were to boost Sirius XM's credit score (and Sirius XM's witnesses provide no evidence that it would do so), such an outcome would only subsidize the company's risk appetite. Sirius XM's management has indicated its comfort with and conscious decision to remain speculative grade:

> We can grow our business in many, many ways, but we don't see any real advantage of us being an investment-grade company. I mean, we know we can easily – if you run the numbers, you could see how we could be debt free; if in fact that was our interest. I don't see any reason for this company to be an investment grade company. I don't know what the advantages are for us.[97]

46. Mr. Karmazin reiterated this position in November 2011 during Sirius XM's earnings call:

> … Standard & Poor's upgraded our corporate credit rating to BB from BB-, which puts us just 2 notches away from investment-grade status. Since early 2009, our credit ratings have been upgraded 6 notches by S&P. We are extremely pleased with the market view of our credit quality and access to credit, so **we don't believe we need to attain an investment-grade rating. Given the predictable nature of our business, we would prefer to take advantage of a prudent level of leverage, which should mean higher returns for our equity holders over time.**[98] [emphasis added]

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96 To be clear, Baa3/BBB- is not the maximum credit rating; Aaa/AAA is the maximum credit rating. Attachments 10 and 11 are scaled to illustrate the historical changes in Sirius XM's credit ratings and not their level within the overall spectrum. An analysis of Mr. Stowell's preferred ratings agency produces identical evidence against any disruptive impact of the royalty rates. Mr. Stowell does not specify which of the ratings he uses, so I show the historical ratings of the Moody's LT Corporate Family Rating and the Standard & Poor's LT Local Issuer rating, which have the ratings of B2 and BB that Mr. Stowell describes. See Stowell Testimony, p. 12.

97 "SIRI - Sirius XM Radio Inc at Bank of America Merrill Lynch Media, Communications & Entertainment Conference," Thomson StreetEvents, September 14, 2011, p. 7 (SX Ex. 227-RP). SX Ex. 230-RP contains recordings of presentations by Sirius XM during earnings calls, investor meetings, and CNBC's Mad Money.

98 "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 4 (SX Ex. 226-RP).

47. Sirius XM is not unique in its preference to remain speculative grade; such a decision certainly has its benefits (and most rated companies do remain speculative grade).[99] In fact, basic finance theory shows that decreasing a company's risk benefits creditors at the expense of shareholders. As Standard & Poor's explains, managing the business "for a very high rating can sometimes be inconsistent with the company's ultimate best interests, if it means being overly conservative and forgoing opportunities."[100] Standard & Poor's also states that "the more appropriate approach [rather than managing the business to obtain a specific rating] is to operate for the good of the business as management sees it and to let the rating follow."[101]

B. The Discussion of Sirius XM's Altman Z-Score is Misleading

48. Mr. Stowell's discussion of the Altman Z-Score does not address the impact of the royalty rates paid to SoundExchange (historically or forward looking). In addition, his Exhibit 3 inaccurately depicts the "safe" Altman Z-Score.[102]

49. Attachment 12 shows Sirius XM's Z-Score plotted against the royalty rate increases established in SDARS I.[103] If royalties were driving Sirius XM into distress, one would expect a relation between higher royalties and higher distress. However, the opposite effect is observed: Sirius XM's Z-Score increased, even though the royalty rates paid to SoundExchange also increased. Further, Sirius XM's Z-Score has been in the "distressed zone" for the entire time period that Mr. Stowell highlights.[104] If interpreted as a two-year bankruptcy prediction, the Z-Score has issued seven consecutive "false positive" signals for

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99 "Junk bonds, also known more respectfully as high-yield securities, are debt instruments (...) which the major bond-rating agencies say are less than 'investment grade.' (....) The bonds of 95 percent of U.S. companies with revenues over $35 million – and of all companies below that amount – are rated noninvestment grade or junk." Yago, Glenn, "Junk Bonds," The Concise Encyclopedia of Economics, 2002.

100 Standard & Poor's, "Corporate Ratings Criteria," 2008, p. 9.

101 Standard & Poor's also describes the benefits of higher and investment-grade ratings, which could include an element of financial flexibility when seeking new debt. Standard & Poor's, "Corporate Ratings Criteria," 2008, p. 9.

102 Stowell Testimony, pp. 12-13.

103 In Attachment 12, the "safe zone" is plotted at 3.00, consistent with the 1968 Altman article that Mr. Stowell cites (as opposed to the considerably-higher 4.79 value incorrectly plotted on Mr. Stowell's Exhibit 3). See Altman, Edward, "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy," The Journal of Finance, 1968, p. 606; Stowell Testimony, p. 13.

104 Stowell Testimony, p. 13.

Sirius XM's bankruptcy.

50. The Z-score, which is dominated by Sirius XM's *past* losses and its management's decision to employ high leverage, was unintended to be interpreted as Mr. Stowell has. Professor Altman explains that the retained earnings component (cumulative losses, in the case of Sirius XM) introduces a firm's age into the Z-Score, as "the incidence of failure [was] much higher in a firm's earlier years" and that young firms had lower retained earnings.[105] Professor Altman further notes that "it is conceivable that a bias would be created by a substantial reorganization or stock dividend."[106] In these two regards, the negative retained earnings that considerably penalize Sirius XM's Altman Z-Score are actually a deviation from Professor Altman's rationale for their use.[107] While net losses from Sirius XM's earliest years (to include those from two decades ago) are still reflected in the company's Altman Z-Score (via the firm's negative retained earnings), surely they have, at best, only a trivial effect on the company's ability to remain solvent in the next five years.

51. More recent research has shown that a company's retained earnings have only a negligible (and slightly negative) impact on its Altman Z-Score. While Professor Altman's 1968 paper (which Mr. Stowell relied upon) made an important contribution to the default-forecasting literature, the Z-Score equation is now dated. Professor Altman's model was based on the study of 66 manufacturing corporations (33 of which went bankrupt), and data from 1946 through 1966.[108] One highly-cited study replicated Professor Altman's analysis using a more-recent data set (756 bankruptcies during the 1980-2000 period) that includes many more observations (14,303 firms) from more industries (44) than the original Altman study.[109] The study found that the retained earnings component of the calculation is now statistically insignificant (and is slightly positive, indicating that firms with *lower* retained earnings are

105 See Altman, Edward, "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy," The Journal of Finance, 1968, p. 595.

106 Altman, Edward, "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy," The Journal of Finance, 1968, p. 595.

107 See Altman, Edward, "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy," The Journal of Finance, 1968, p. 595.

108 Altman, Edward, "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy," The Journal of Finance, 1968, p. 593.

109 Hillegeist, Stephen, et al., "Assessing the Probability of Bankruptcy," Review of Accounting Studies, 2004, p. 7.

less likely to enter bankruptcy).[110] Based on the updated model, Sirius XM's revised Z-Score implies that the probability that Sirius XM will default within four to sixteen months is slightly less than one percent.[111]

52. Further, Mr. Stowell's reliance on Professor Altman's study is selective and misleading. In footnote 29, Mr. Stowell quotes Professor Altman but omits the second half of Altman's statement: "it is suggested that the bankruptcy prediction model is an accurate forecaster of failure up to two years prior to bankruptcy **and that the accuracy diminishes substantially as the lead time increases**"[112] [emphasis added to the portion omitted by Mr. Stowell]. In fact, one reason that Altman provides for the 36 percent accuracy at the five-year level (the prediction is almost twice as likely to be incorrect than correct) is that the discriminant model becomes unreliable in its predictive ability after the second year.[113]

53. Lastly, Mr. Stowell inappropriately compares Sirius XM's Z-Score to the Z-Scores of Borders and Blockbuster. His conclusions are flawed because two anecdotal examples cannot be a reliable basis. In addition, pre-selecting his two examples on the basis of having one product and having actually defaulted does not provide validity to Mr. Stowell's conclusion.[114]

C. The Discussion of Sirius XM's Stock Prices Is Irrelevant and Flawed

54. The Sirius XM testimonies repeatedly and incorrectly focus on the company's share price. For the reasons explained in the SDARS I decision, however, stock prices are not a measure

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110 Hillegeist, Stephen, et al., "Assessing the Probability of Bankruptcy," Review of Accounting Studies, 2004, p. 14.

111 Hillegeist, et. al. convert the Z-Score into a default probability using the logistic function. Notably (and consistent with my analysis of bond yield data), the authors' overarching conclusion is that a market-based model provides significantly more information about the probability of bankruptcy than do both the original and updated Altman Z-Score. Hillegeist, Stephen, et al., "Assessing the Probability of Bankruptcy," Review of Accounting Studies, 2004, pp. 14, 16, and 28.

112 Altman, Edward, "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy," The Journal of Finance, 1968, p. 604.

113 Altman, Edward, "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy," The Journal of Finance, 1968, p. 604.

114 It is a fundamental research flaw to select a sample based on the dependent variable – in this case, the occurrence of a default. The proper question to ask is how many companies with Z-score similar to Sirius XM's went bankrupt.

of disruption.[115] Even if historical stock price returns were relevant in the ways that Sirius XM's witnesses purport, the arguments made in the Sirius XM testimonies lack academic rigor.

55. The arguments presented by Mr. Stowell, Mr. Frear, and Mr. Karmazin concerning investor losses are very sensitive to the time period selected. In fact, when analyzing different time periods, shareholders' positive gains are greater in size than the decreases that the Sirius XM witnesses highlight. In his written testimony, Mr. Frear describes price decreases of 50 percent and 97 percent for any investors who purchased Sirius XM stock in January 2007 (prior to the financial crisis) and February 2000 (prior to the technology bubble bursting),[116] but he does not mention the returns earned by any investors who purchased Sirius XM stock in February 2009 and reaped returns between 1,000 and 3,000 percent.[117] In a communications and entertainment conference, Mr. Karmazin described Liberty Media's (Sirius XM's largest *existing* shareholder) sentiments about Sirius XM's past returns: "The investment has certainly been a very good one for them… it turned out to be really good for them… all I can do is reiterate the things that Liberty has said publically to us and one is they love [Sirius XM].[118] The CEO of Liberty Media has since stated that Liberty is "as enthused about [Sirius XM] as anything we own, anything we see in the marketplace."[119] The Sirius XM witnesses provide no reason as to why price changes observed since the 2000 and 2007 periods should be more relevant than those in any other period.

56. An additional and more substantial flaw is that this discussion assumes that the current rate determination should somehow undo the losses of shareholders who invested in Sirius XM's predecessor companies over a decade ago, even if they likely no longer hold the stock. Mr.

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115 In the Matter of Adjustment of Rates and Terms for Preexisting Subscription Services and Satellite Digital Radio Services, Docket No. 2006-1 CRB DSTRA, Rebuttal Testimony of Steven Herscovici, July 24, 2007, p. 34.

116 Frear Testimony, p. 7.

117 Bloomberg, L.P. The 3,000 percent return is based on the minimum stock price observed in February 2009 and stock price observed on June 29, 2012. Using the maximum stock price observed in February 2009, the return is 1,021 percent.

118 "SIRI – Sirius XM Radio Inc. at Bank of America Merrill Lynch Media, Communications & Entertainment Conference," Thomson StreetEvents, September 14, 2011, p. 8 (SX Ex. 227-RP).

119 "LMCA – Q1 2012 Liberty Media Corp Earnings Conference Call," Thomson Reuters StreetEvents, May 8, 2012, p.9.

Stowell admitted in his Affirmative Hearing Testimony that he did not know if *any* pre-2008 investors are still owners of Sirius XM stock today (and that he did not even know how anyone could know).[120] A simple comparison of shares outstanding and trading volume shows that on average, the entirety of Sirius XM's equity has changed hands several times since 2008 – indicating that the likelihood of a significant pre-2008 investor base currently possessing Sirius XM shares is remote.[121]

57. Finally, Sirius XM's focus on stock price decreases does not mention the total market capitalization of Sirius XM, nor how it compares to the firm's historical market capitalization. Mr. Frear, for example, compares the company's recent stock price to the stock price in February 2000 (and claims investors "have lost over 97% of their investment").[122] Focusing on the stock price alone is misleading, because it ignores the fact that Sirius XM has more shares outstanding today than it did in the past. The total dollar value of Sirius XM's equity (known as market capitalization) is *larger* today – it is simply divided into more shares. Of the trading days in February 2000, the largest sum of Sirius and XM's market capitalizations was $2.95 billion. Sirius XM's market capitalization had increased to about $11.33 billion as of the date Mr. Frear filed his report – an increase of 284 percent over its value in early 2000.[123]

V. SIRIUS XM'S RECENT OPERATING PERFORMANCE PROVIDES FURTHER EVIDENCE THAT THE RISK OF DISRUPTION IS MINIMAL

58. Sirius XM's recent performance provides additional evidence that Sirius XM witnesses have significantly overstated the likelihood of disruption to Sirius XM's business. Since my Affirmative Testimony, Sirius XM has filed one additional annual statement ("Form 10-K")

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120 Stowell Affirmative Hearing Testimony, pp. 1296-1297.

121 The entirety of Sirius XM's equity changed hands 3.5 times in 2009, 5.9 times in 2010, and 4.8 times in 2011. This approximation, referred to as "share turnover" is calculated by dividing the annual trading volume of Sirius XM's stock by the weighted-average number of basic shares outstanding in the corresponding year. Volume data are obtained from Bloomberg, L.P., and the weighted-average number of basic shares outstanding are obtained from Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 24.

122 Frear Testimony, p. 7.

123 Value of outstanding common shares = $6.62 billion. Value of convertible preferred shares held by Liberty Media = $4.71 billion at 12/31/2011. Total = $11.33 billion. See Liberty Media Corporation, Form 10-K for Fiscal Year ended December 31, 2011, pp. II-40, II-41. Historical market capitalization data obtained from CRSP.

and one additional quarterly statement ("Form 10-Q") with the U.S. Securities and Exchange Commission ("SEC"). These statements show that Sirius XM's trend of improving financial performance, which I documented in my Affirmative Testimony, continued in late 2011 and early 2012. In particular:

- **Net income** grew by 892 percent from 2010 to 2011,[124] and first-quarter net income increased by 38 percent in 2012 compared to 2011.[125]
- **Free cash flow** grew by 98 percent from 2010 to 2011,[126] and first-quarter free cash flow increased by $31.6 million (from negative $16.9 million to positive $14.8 million) from 2011 to 2012.[127]
- **Adjusted EBITDA** grew by 17 percent from 2010 to 2011,[128] and first-quarter adjusted EBITDA increased by 15 percent in 2012 compared to 2011.[129]

59. Sirius XM management touted these results and others in a February 2012 earnings call:

> [We] delivered the best year of subscriber growth since the merger of Sirius and XM by adding 1.7 million net new subscribers. Revenue reached a record of over $3 billion. Adjusted EBITDA climbed 17% to a record $731 million, beating [Sirius XM's] guidance of $715 million. Free cash flow essentially doubled to a record $416 million beating [Sirius XM's] forecast of $400 million. These statistics paint a picture of remarkable growth and record achievements in 2011.[130]

60. In a May 2012 earnings call, Sirius XM management also stated that the company sustained "no dip" in its conversion rate and a *decrease* in the churn rate, from 2.0 percent to 1.9 percent, despite the imposition of a 12 percent price increase to its base package (an increase that affected 35 percent of Sirius XM's self-pay subscriber base at the time).[131] Further,

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124 Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 26 (SX Ex. 231-RP).

125 Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2012, p. 24 (SX Ex. 232-RP).

126 Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 38 (SX Ex. 231-RP).

127 Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2012, p. 32 (SX Ex. 232-RP).

128 Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 39 (SX Ex. 231-RP).

129 Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2012, p. 32 (SX Ex. 232-RP).

130 "SIRI – Q4 2011 Sirius Satellite Radio Earnings Conference Call, Thomson Reuters StreetEvents, February 9, 2012, p. 2 (SX Ex. 224-RP).

131 "SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 3 (SX Ex. 221-RP).

Sirius XM's net subscribers grew by more than 400,000 and self-pay net additions "grew dramatically by 148% compared to the same quarter [in 2011]. Both of these figures represent the strongest first quarter net add performance [Sirius XM has] achieved since the combination of Sirius and XM in 2008."[132]

61. Sirius XM management also stated that it has used the company's improved financial performance "to reduce our leverage and pay down debt."[133] This is consistent with the company's internal plans to [[redacted]], as I discuss in paragraph 106.

62. Sirius XM management projects the company will have $1.5 billion in cash or cash equivalents by the end of 2012, compared to actual cash holdings of $774 million at year-end 2011.[134]

63. In an April 2012 interview with Forbes, Mr. Karmazin stated "[a]nd, again, we're a very profitable, successful company. If we want a performer, we can afford to pay more than anybody else can because we're making more."[135] The affordability of higher payments to performers is at the center of my analysis. I agree with Mr. Karmazin that Sirius XM's current operating performance demonstrates the company's capacity to pay performing artists.

VI. SIRIUS XM WILL LIKELY PASS INCREASED ROYALTY COSTS TO CONSUMERS, THUS LOWERING THE LIKELIHOOD OF DISRUPTION

64. The testimony of Mr. Frear, Mr. Karmazin, and Mr. Stowell that *any* increase in the royalty rates will significantly increase the likelihood that Sirius XM's business will be disrupted is further undercut by substantial evidence that Sirius XM has the desire and ability to pass

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132 "SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 3 (SX Ex. 221-RP).

133 "SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 4 (SX Ex. 221-RP).

134 "SIRI – Q4 2011 Sirius Satellite Radio Earnings Conference Call, Thomson Reuters StreetEvents, February 9, 2012, p. 6 (SX Ex. 224-RP). Marchese, Steffanie, "CNBC Exclusive: CNBC Transcript: Sirius XM Radio CEO Mel Karmazin Speaks with CNBC's Jim Cramer Tonight on 'Mad Money w/Jim Cramer'," March 9, 2012 (SX Ex. 222-RP). See also video at http://video.cnbc.com/gallery/?video=3000077392.

135 Bercovici, Jeff, "Karmazin: Rush Limbaugh Should Want to Work for Sirius XM," Forbes, April 6, 2012, available at http://www.forbes.com/sites/jeffbercovici/2012/04/06/karmazin-rush-limbaugh-should-want-to-work-for-sirius-xm/, accessed on June 27, 2012 (SX Ex. 238-RP).

through increased royalty costs to consumers in the form of the U.S. Music Royalty Fee or price increases.[136] Sirius XM's internal planning documents repeatedly indicate that Sirius XM's intends [[redacted]].[137] Specifically, Sirius XM projects that "[[redacted]]."[138]

65. In fact, Sirius XM is already passing through approximately 100 percent of the current self-pay royalties, or roughly 87 percent of the total royalties, to consumers in the form of the U.S. Music Royalty Fee.[139] If the company were to pass through any increased royalty costs (or a significant portion of those costs) on to consumers, the proposed rates would have little to no impact on Sirius XM's future free cash flow or adjusted EBITDA. As explained below, it is my opinion that Sirius XM would be able to pass on most, if not all, of any increased royalty costs to consumers, further minimizing any possibility of disruption to Sirius XM's business from SoundExchange's proposed rate increase.

66. Sirius XM's intention and ability to pass royalty cost to subscribers is consistent with its prior history. As part of the merger between Sirius and XM, Sirius XM agreed with the Federal Communications Commission ("FCC") not to raise its basic subscription prices for three years following the merger.[140] The FCC, however, allowed Sirius XM to pass through to consumers any increase in royalty costs after the filing of the merger application with the FCC.[141] Shortly after the FCC Order permitted it to do so, Sirius XM instituted a U.S. Music

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136 Stowell Testimony p. 22; Frear Testimony p. 23; Karmazin Testimony p. 19.

137 See SXM_CRB_DIR_00031738, p.6 (SX Trial Ex. 9); SXM_CRB_DIR_00057924-933 at 929 (SX Ex. 239-RR); Declaration of James J. Sabella in Opposition, Blessing v. Sirius XM Radio, Inc., May 16, 2011, p. 24; SXM_CRB_DIR_00057912 (SX Ex. 240-RR).

138 The U.S. Music Royalty Fee is often abbreviated as "MRF." SXM_CRB_DIR_0031738 (2011 Long-Range Scenario Baseline Forecast), p. 6 (SX Trial Ex. 9). The source materials I summarize in footnote 118 of my Affirmative Testimony also indicate Sirius XM's intention to [[redacted]].

139 Frear Affirmative Hearing Testimony, p. 644.

140 SX Trial Ex. 46, FCC Order, ¶ 107.

141 SX Trial Ex. 46, FCC Order, ¶ 107.

Royalty Fee (i.e., a surcharge) of $1.98 per month to pass through increased royalty costs.[142] Subsequently, Sirius XM had to lower the Music Royalty Fee for basic subscribers to $1.40 in December 2010 so as to avoid over-collecting fees, which would have violated the FCC order.[143] While under FCC restrictions (through July 2011), Sirius XM was able to pass through well over [[redacted]] of the increased royalties owed to SoundExchange and roughly [[redacted]] of the total SDARS royalties paid to SoundExchange.[144] Once the FCC restrictions ended, Sirius XM began passing through approximately all of the self-pay SDARS royalties to subscribers.[145]

67. Contrary to testimony from Sirius XM,[146] the evidence suggests that Sirius XM does, in fact, have the ability to pass through some additional royalty costs to consumers. Sirius XM has instituted significant price increases (raising prices from $12.95 to $15.91 – a total increase of 22.8 percent)[147] without any discernable impact on Sirius XM's churn rate (i.e., percentage of its subscribers deactivating on a monthly basis). While Sirius XM expected the institution of the Music Royalty Fee in 2009 to increase the churn rate, given that the fee was effectively a 15 percent price increase,[148] Mr. Karmazin announced publicly that there was no "discernable

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142 Based on the timing of the FCC filing, the increased royalty costs came almost entirely from the increase in sound recording royalties. In fact, Sirius XM originally considering calling the fee the "Copyright Royalty Board Fee" rather than the Music Royalty Fee. SXM_CRB_DIR_00058275-276 at 276. Mr. Frear's testimony at trial that Sirius XM only recovered 53 percent of the royalties paid to SoundExchange is factually inaccurate because Sirius XM was permitted under the FCC order to cover significantly more of the SoundExchange royalties than the musical works royalties. See, e.g. SXM_CRB_DIR_00017721-737 at 731-732 (letter to FCC) (SX Ex. 241-RR) (discussing [[redacted]]).

143 Frear Affirmative Hearing Testimony, pp. 734-735.

144 This approximation is calculated by relying on the royalties historically paid to SoundExchange, the 2007 – 2011 statutory rates, and the pre-merger royalty amounts, as approximated from an internal 2007 Sirius XM document describing its treatment of pre-merger royalties and its "royalty pool." The fact that Sirius XM had to lower the U.S. Music Royalty Fee to avoid over-collection is indicative that the company was collecting MRF revenues near [[redacted]] of its total royalties payable to SoundExchange. Alternatively put, this approximation implies Sirius XM was able to pass through over [[redacted]] percent of the increase in rates above 2 percent. See Attachment 13.

145 [[redacted]] SXM_CRB_DIR_00057912 (SX Ex. 240-RR).

146 Frear Testimony, p. 21 footnote 17; Meyer Testimony p. 31 footnote 17.

147 $15.91 = the $14.49 base price + the $1.42 U.S. Music Royalty Fee.

148 $1.98 ÷ $12.95 = 15 percent.

impact on churn" as a result of the Music Royalty Fee.[149] In fact, the number of Sirius XM subscribers has *grown* in every quarter since the Music Royalty Fee was instituted.[150] Similarly, in January 2012, Sirius XM raised base subscription prices by approximately twelve percent from $12.95 to $14.49.[151] Rather than losing subscribers and revenue, Sirius XM's churn rate actually declined from 2.0 percent in the first quarter of 2011 to 1.9 percent in the first quarter of 2012.[152] Sirius XM concurrently achieved the highest first quarter addition in net subscribers since the 2008 merger.[153] This is quite an extraordinary achievement for Sirius XM, and provides strong evidence that at current price levels Sirius XM's subscriber base is not highly sensitive to price changes.

68. Mr. Frear's testimony that Sirius XM "cannot continue to increase [Sirius XM's] prices without losing money" is unsupported by the evidence.[154] Only 34 days after Mr. Frear submitted his testimony, Sirius XM enacted the twelve percent price increase I describe above.[155] The company did not lose money as a result – it actually generated record-high performance in the following quarter, both financially and in terms of subscribers – undoubtedly aided by the economic recovery. And all of this occurred during a time when Mr. Frear claimed Sirius XM's significant new competition would limit its ability to increase

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149 Sirius XM Radio Inc., "Q4 2009 Earnings Call," SXM_CRB_DIR_00020766. Sirius XM [[redacted]]. SXM_CRB_DIR_00065563. Dan Mandler, the head of Sirius XM subscriber analytics, suggested the Music Royalty Fee may have a [[redacted]].

150 Lys Testimony, Attachment 4.

151 "SIRI – Q4 2011 Sirius Satellite Radio Earnings Conference Call, Thomson Reuters StreetEvents, February 9, 2012, p. 2 (SX Ex. 224-RP).

152 Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2012, p. 29 (SX Ex. 232-RP).

153 "SIRI - Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 3 (SX Ex. 221-RP).

154 Frear Testimony, p. 21; Meyer Testimony p. 31 footnote 17. When describing the price increase, Mr. Frear stated "[w]e don't intend to lose a single subscriber, all right, not one." David Frear, Sirius Satellite Radio at Morgan Stanley Technology, Media & Telecom Conference, February 28, 2012, pp. 1-2 (SX Ex. 223-RP).

155 Frear Testimony, p. 30; "SIRI – Q4 2011 Sirius Satellite Radio Earnings Conference Call, Thomson Reuters StreetEvents, February 9, 2012, p. 2 (SX Ex. 224-RP).

prices without losing customers.[156]

69. Rather than provide actual evidence about Sirius XM's inability to increase the Music Royalty Fee, Mr. Frear offered an irrelevant reference to the 2011 price increase at Netflix as support for Sirius XM's alleged inability to raise prices.[157] However, both Mr. Frear and Mr. Karmazin publicly stated that the Netflix price increase is not comparable to the price increase at Sirius XM.[158] Moreover, Sirius XM's own modeling efforts, which Mr. Frear chose not to share with the Court, showed that it would not lose money even if churn had increased substantially - which, as noted earlier, it did not. As Mr. Karmazin explained to investors:

> I can also tell you that we modeled the revenue benefit and [average revenue per user] benefit of the price increase even with higher churn and you can't really model high enough churn to make it not worth doing. I mean, so, it clearly is the right thing to do.[159]

70. In short, the evidence strongly suggests that Sirius XM has the ability to pass through at least some portion, and the intention to pass through some or all, of any potential increase in royalties. Indeed, Sirius XM's own long-term planning document currently provides for [[redacted]], implicitly demonstrating Sirius XM's belief that its ability to raise prices is not so constrained by the realities of the marketplace.[160]

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156 Frear Testimony, p. 21 footnote 17.

157 Frear Testimony, p. 21.

158 "Yes, so I guess good news is that I think we approached the price differently than Netflix did that it was a very straightforward, very clean story for our subscribers, no alterations in the service or anything else, just a simple change of price." David Frear, "SIRI – Sirius Satellite Radio at Morgan Stanley Technology, Media & Telecom Conference," Thomson Reuters StreetEvents, February 28, 2012, p. 4 (SX Ex. 223-RP).

Jim Cramer: "We're speaking about Netflix...." Mel Karmazin: "So on the price increase – and I'll give you the answer on that one, is that our consumers have been really loyal and they really love our product. And the reaction has been very modest. Very modest. So, you know, we feel very good about, you know, the subscriber growth in light of the fact that we put in a price increase." Marchese, Steffanie, "CNBC Exclusive: CNBC Transcript: Sirius XM Radio CEO Mel Karmazin Speaks with CNBC's Jim Cramer Tonight on 'Mad Money w/Jim Cramer,'" March 9, 2012 (SX Ex. 222-RP). See also video at http://video.cnbc.com/gallery/?video=3000077392.

159 "SIRI - Sirius Satellite Radio at Citi Entertainment, Media and Telecommunications Conference," Thomson Reuters StreetEvents, January 4, 2012, p. 8.

160 SXM_CRB_DIR_00031738, p. 6 (SX Trial Ex. 9).

VII. SIRIUS XM'S CLAIMS THAT FUTURE EVENTS MAY DISRUPT ITS BUSINESS ARE VAGUE, SPECULATIVE AND ENTIRELY UNRELATED TO THE ROYALTY RATES FOR SOUND RECORDINGS

A. The Potential Risks Identified by Sirius XM Have Nothing to do with the Royalty Rate

71. The written testimonies of Mr. Stowell, Mr. Frear, and Mr. Karmazin recite various risks that might befall Sirius XM in the future, but these witnesses entirely fail to analyze the incremental impact of the royalty rates themselves. Rather, these witnesses simply describe the general risk factors faced by Sirius XM (or by the economy in aggregate) without showing whether or by how much these risk factors are to increase as a consequence of the proposed rate increase and conclude that "any increase to the royalty rate would substantially increase the likelihood of disruption to Sirius XM."[161] Analyzing any "disruptive impact" of increased rates, however, requires modeling the effect of rate increases on the company's future prospects. Yet, neither in their written testimony nor in their oral presentations did Sirius XM's witnesses produce any such analysis.

72. For example, Mr. Stowell states that while he "cannot say with certainty how the competitive threats to Sirius XM will affect its future performance, a worst case scenario of bankruptcy must be considered when evaluating the future of the company."[162] He includes the statement in response to his assignment of evaluating "the financial prospects of Sirius XM (...) over the 2013-2017 period and [opining] on the likely impact of a royalty rate increase."[163] No one can state with certainty how competitive threats will affect the future performance of any company, and a worst case scenario of bankruptcy could be considered regardless of financial strength, but there is simply no reason to consider bankruptcy a "likely impact of a royalty rate increase."[164]

73. Even Sirius XM's own proposed rates demonstrate the faulty economic reasoning underlying the testimonies of Mr. Karmazin, Mr. Frear, and Mr. Stowell. Mr. Karmazin's testimony describes rates between five and seven percent as suitable for the current determination.[165] Of

161 Stowell Testimony, pp. 21-22.

162 Stowell Testimony, p. 11.

163 Stowell Testimony, p. 2.

164 Stowell Testimony, p. 2.

165 Karmazin Testimony, p. 20.

the risk factors identified by Sirius XM's witnesses, which would somehow be eliminated by a five or seven percent royalty rate? Would the company no longer possess debt obligations or be involved with the automobile industry? Would macroeconomic measures of investor sentiment such as the VIX suddenly indicate the future is foreseeable? Would the company's history of large investments or 2009 financing struggle be forgotten? Would a risk-free source of guaranteed credit make a commitment to fund Sirius XM, even in any future financial crises? Would Sirius XM's competitors no longer seek to add subscribers? Certainly not. Moreover, to the contrary, many of the risk metrics that I as well as Sirius XM's witnesses evaluated were at their highest when royalty rates were at 6.5 percent – a rate within the range of the rates proposed by Sirius XM in Mr. Karmazin's testimony.[166]

74. Sirius XM's risk metrics have steadily improved over the past several years, despite the increasing royalty rates payable to SoundExchange.[167] Would Sirius XM's witnesses conclude that a causal relationship exists between the royalty rates and Sirius XM's improvements in financial stability and growth? I doubt they would, and I certainly would not. A more plausible explanation is that royalties paid to SoundExchange play a small role relative to the company's improved and improving prospects – prospects that are observable in nearly all of its performance metrics.

75. In summary, Sirius XM's testimonies simply identify risks and then conclude that any increase in the royalty rates will likely disrupt Sirius XM.[168] There is no incremental or specific analysis of the potential for disruption from the proposed royalty rates themselves.

B. Risks Associated with General Economic Uncertainty

76. Mr. Frear states that "**[s]hould** the Company's subscriber base be materially impacted by the evolving competitive environment, by a significant decline in new car sales, or by any number of other risks and unforeseen factors, it **may** once again find itself in a state of

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166 See Attachments 10, 11, 14, 16, and 17.

167 See Attachments 10, 11, 12, 14, 16, and 17.

168 Mr. Stowell, Mr. Karmazin, and Mr. Frear summarize this conclusion in the "Conclusion," "Implications of a Royalty Rate Increase," and "Implications of a Material Increase in Royalty Rates" sections of their respective reports. All three of their conclusions are unsupported, and are conflicted by Sirius XM's statements within their testimonies, in communications with shareholders and analysts, in internal documents, in filings to the United States Securities and Exchange Commission, and in communications with credit rating agencies.

financial distress, even if royalty rates are maintained at their current levels"[169] [emphasis added]. However, Sirius XM's own witnesses do not expect these factors to materialize. James Meyer testified that Sirius XM's subscriber base is unlikely to contract in the 2013 to 2017 time period.[170] Mr. Karmazin has similarly stated "we believe we have many, many years of subscriber growth ahead of us."[171] Mr. Frear testified that new car sales in February of 2012 are at their highest level since 2008.[172] Mr. Karmazin publicly noted that auto sales are expected to climb to 14.3 million in 2012, which provides "nice momentum for [Sirius XM's] growth."[173] Mr. Karmazin had earlier stated in late 2011 that "[i]n fact, most forecasters believe auto sales will continue to grow for several years as Americans begin to more quickly replace the country's aging fleet of vehicles."[174] Mr. Frear publicly explained that "if there is going to be a disruptive technology impact to [Sirius XM's] business, [he thinks] we would have seen it already."[175] Therefore, the Sirius XM witnesses mistakenly make hypothetical scenarios (which are unlikely by the witnesses' own admission) the primary focus of a disruption analysis.

77. When describing a "current ongoing climate of significant economic uncertainty," Mr. Stowell cites "historically high volatility and 'fear indices' that are close to the levels that prevailed during the 2007-2009 economic crisis."[176] From these, he concludes that "it is reasonably likely that should Sirius XM once again find itself in a period of financial distress, there will not be a lender willing to rescue Sirius XM yet again, leaving it with no choice but to file for bankruptcy," and that " [m]aterially increasing the royalty rate significantly

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169 Frear Testimony, p. 23.

170 Deposition of James Meyer, March 14, 2012, p. 132.

171 "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 4 (SX Ex. 226-RP).

172 David Frear and counsel for SoundExchange were discussing the seasonally-adjusted annual rate ("SAAR"), a commonly-used metric for auto sales. Deposition of David Frear, March 7, 2012, p. 165.

173 "SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 3 (SX Ex. 221-RP).

174 "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 4 (SX Ex. 226-RP).

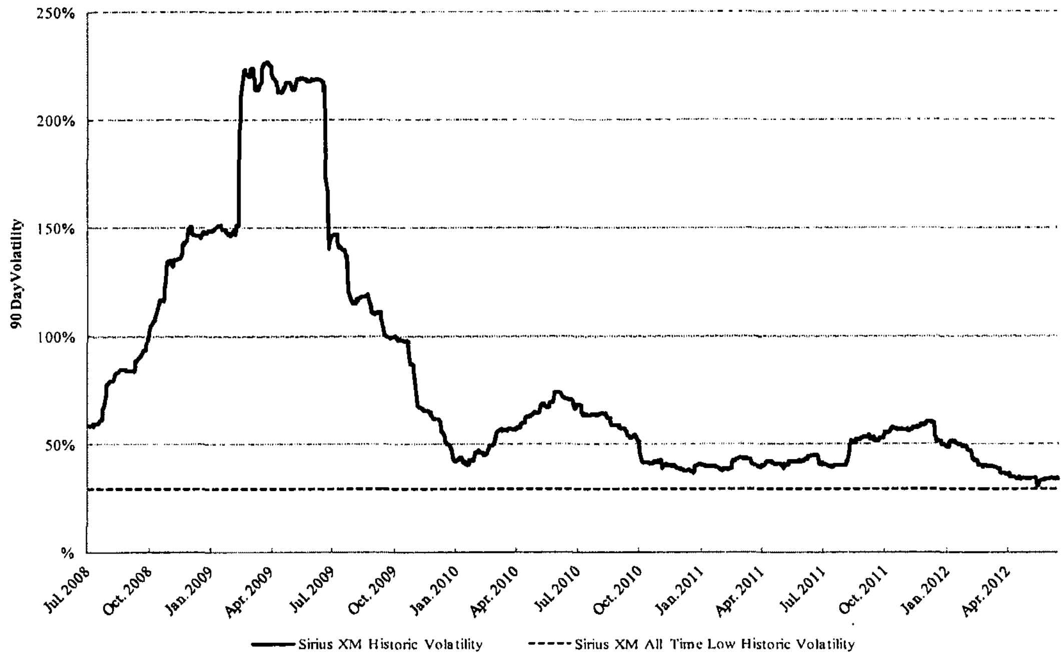
175 "SIRI - Sirius Satellite Radio at Morgan Stanley Technology, Media & Telecom Conference," Thomson Reuters StreetEvents, February 28, 2012, p. 11 (SX Ex. 223-RP).

176 Stowell Testimony, pp. 16-17.

increases this likelihood of bankruptcy."[177] The metrics he cites, however, are measures of past and projected volatility of stock prices and are not specific measures of the likelihood that a distressed company will be able to obtain financing. Additionally, these metrics indicate that historical and projected volatility are <u>far lower</u> now than they were during the financial crisis.

78. As Figure 9 and Attachment 14 show, the 90 day historical volatility of Sirius XM's stock price dropped dramatically by mid 2009.[178] Contrary to Mr. Stowell's testimony, Sirius XM's historical volatility is close to an all-time low and does not resemble the levels that prevailed in the crisis.

Figure 9
Sirius XM
Historic Volatility
July 2008 - June 2012



<u>Note:</u> See Attachment 13 notes.

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177 Stowell Testimony, pp. 16-17. Mr. Stowell also claims the financial history of Sirius XM is indicative of the likelihood of a lender rescuing Sirius XM if it becomes distressed in the future. This argument is also unsupported.

178 The historical volatility is calculated on a rolling basis and equals the standard deviation of the preceding 90 days' logarithmic stock returns (90 days of prices, which produce 89 returns), which are annualized using a 260-day time factor. It is possible that Mr. Stowell was referring to the historical values of implied volatility. Like the historical volatility of Sirius XM's stock, the implied volatility has fallen dramatically from its value at the height of the crisis. He is incorrect no matter which measure he considered. Data are obtained from Bloomberg, L.P.

79. Mr. Stowell also cites the Chicago Board Options Exchange Market Volatility Index, or the "VIX," but he compares the average VIX over a 608-day period in the financial crisis (33.7) to the average VIX in the 90-day period preceding his report (34.8).[179] See Attachment 15. Mr. Stowell's presentation is misleading, because he compares two time periods of vastly different sizes (608 days versus 90 days). The 90-day VIX average for the period ending June 14, 2012 is 19.5 – considerably lower than the 90-day VIX average for the period ending January 1, 2009 (a value of 59.3). Similarly, the 608-day VIX average for the period ending June 14, 2012 is 22.2 – considerably lower than the 608-day VIX average in the financial crisis (a value of 33.7).[180]

80. Like the majority of the disruption discussion contained within the Sirius XM testimonies, Sirius XM's witnesses make no connection between the incremental effect of the proposed rates and the likelihood of bankruptcy (or on the volatility measures, for that matter). The analysis of the VIX and the historical volatility of Sirius XM's stock do not support the conclusion that "[m]aterially increasing the royalty rate significantly increases [the] likelihood of bankruptcy."[181]

81. Sirius XM's public statements to shareholders certainly do not betray any great concern about future economic conditions. To the contrary, in recent investor calls, Sirius XM's management has expressed continued optimism about the company's future prospects. For example, Mr. Karmazin, the Chief Executive Officer of Sirius XM, began the February 9, 2012 conference call with the following summary:

> We are very pleased to report our 2011 results met or exceeded the guidance we gave you at the beginning of the year. And I'm even more excited about our prospects for accelerating revenue and adjusted EBITDA growth in 2012. We expect to deliver a very good year across-the-board in 2012.[182]

82. During that same call, Mr. Karmazin stated:

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179 Stowell Testimony, pp. 16-17, footnote 38.

180 See "The CBOE Volatility Index – VIX," Chicago Board Options Exchange, 2009, available at https://www.cboe.com/micro/vix/vixwhite.pdf. VIX Index data was obtained from Bloomberg L.P.

181 Stowell Testimony, p. 17.

182 "SIRI – Q4 2011 Sirius Satellite Radio Earnings Conference Call, Thomson Reuters StreetEvents, February 9, 2012, pp. 1-2 (SX Ex. 224-RP).

> And had we not been constrained on the revenue side by our agreement with the FCC and other litigation, our [2011] numbers would have been even stronger. Those handcuffs are now off for 2012 and beyond.
>
> For 2012, we are very optimistic about our ability to grow subscribers.[183]

83. During a subsequent call on May 1, 2012, Mr. Karmazin indicated that he is optimistic about Sirius XM's 2013 performance as well, stating that "[b]ased on everything we know today, we are confident that 2012 will be a great year for us and 2013 will be even better."[184]

84. Mr. Karmazin specifically addressed expected growth rates for adjusted EBITDA and free cash flow, the metrics I analyzed in my Affirmative Testimony and which the Copyright Royalty Judges considered in the previous rate determination.[185]

> Because our revenue growth will exceed expense growth, our adjusted EBITDA should grow by 20% this year to approximately $875 million, also a new record high. And the best operating margin in our history. We still believe that we have plenty of room for margin growth over the next several years.... The last but not least piece of our guidance is for free cash flow to grow by nearly 70% to a record $700 million this year.[186]
>
> ...I am very pleased about our prospects for growing free cash flow rapidly over the next few years.[187]
>
> [O]ur cash flow is now growing [in 2012] into a substantial asset for investors with tremendous potential for long-term growth.[188]

85. Additionally, Sirius XM now projects that "[[redacted]]."[189] As discussed

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[183] "SIRI – Q4 2011 Sirius Satellite Radio Earnings Conference Call, Thomson Reuters StreetEvents, February 9, 2012, pp. 1-2 (SX Ex. 224-RP).

[184] "SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 5 (SX Ex. 221-RP).

[185] Lys Testimony, p. 19.

[186] "SIRI – Q4 2011 Sirius Satellite Radio Earnings Conference Call, Thomson Reuters StreetEvents, February 9, 2012, p. 2 (SX Ex. 224-RP).

[187] "SIRI – Q4 2011 Sirius Satellite Radio Earnings Conference Call, Thomson Reuters StreetEvents, February 9, 2012, p. 4 (SX Ex. 224-RP).

[188] "SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 4 (SX Ex. 221-RP).

[189] The U.S. Music Royalty Fee is often abbreviated as "MRF." SXM_CRB_DIR_0031738, p. 6 (SX Trial Ex. 9). The source materials I summarize in footnote 118 of my Affirmative Testimony also indicate Sirius XM's intention to [[redacted]].

in Section VI, recovering royalty payments through the Music Royalty Fee lowers any chance of disruption.

86. In May 2012, Sirius XM raised its estimate of 2012 annual net subscriber additions from 1.3 million to 1.5 million, and Mr. Karmazin described this estimate as conservative.[190] Mr. Karmazin indicated that this increased estimate incorporates risks Sirius XM faces (contrary to Mr. Stowell's assertion that Sirius XM's long-term forecasts do not fully account for the company's risks),[191] including "uncertainty around the price increase" as well as competition against "free terrestrial and free online competitors."[192]

87. The optimism conveyed in investor calls is consistent with the testimony of James Meyer, the President of Operations and Sales at Sirius XM, that the company's subscriber base is unlikely to contract in the 2013 to 2017 time period,[193] and that Sirius XM is expected to experience record-high revenue, subscribers, adjusted EBITDA, and free cash flow in 2012.[194]

88. Thus, the public statements of Sirius XM and its witnesses are consistent with the optimism reflected in the company's internal planning documents and, contrary to the testimony of Sirius XM witnesses in this proceeding, reinforce a conclusion that the likelihood of disruptive impact from SoundExchange's proposed royalty rates is minimal.

C. Analysis of Risks Associated with Sirius XM's Dependence on the Automotive Industry is Misleading

89. The percentage of new vehicles sold in the United States that come equipped with Sirius XM devices has markedly increased, from 46 percent in 2008 to 67 percent in 2011.[195] In

190 "SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 3 (SX Ex. 221-RP).

191 Stowell Testimony, p. 21.

192 "SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 3 (SX Ex. 221-RP).

193 Deposition of James Meyer, March 14, 2012, p. 132.

194 Deposition of James Meyer, March 14, 2012, pp. 11-12.

195 This percentage is commonly referred to as the penetration rate. Annual Stockholder Meeting presentation, Sirius XM Radio, Inc., Form 8-K dated May 22, 2012, p. 32 (SX Ex. 211-RP).

addition, new auto sales are expected to grow by millions in the upcoming royalty period.[196] As a result, the number of cars equipped with a satellite-ready receiver – that is, potential customers for Sirius XM, -- approximately 43 million and expected to grow to over 90 million.[197] Indeed, Sirius XM has recognized this potential market and has begun to pursue used-car customers.[198] While these developments in the auto market are cause for optimism within Sirius XM, and are known to the company's management,[199] the Sirius XM testimonies describe the demand for its service as "increasingly dependent on the highly volatile and cyclical U.S. auto industry... [and that its exposure to the auto industry] gives rise to a risk that cannot be hedged."[200] As noted in Section VII.C, however, Sirius XM's witnesses do not expect auto sales (or the number of Sirius XM subscribers) to decline, nor do they expect a competing technology to disrupt the company's competitive position. Thus, they do not anticipate the two sources of auto-related vulnerability Mr. Stowell cites.[201]

90. Mr. Stowell generally focuses on EBIT as the appropriate measure for analyzing the impact of a change in the royalty rate.[202] When assessing Sirius XM's dependence on the auto market, however, he changes the dependent variable – without explanation – to stock price[203] despite the fact that the Copyright Royalty Judges correctly determined in SDARS I that

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196 Annual Stockholder Meeting presentation, Sirius XM Radio, Inc., Form 8-K dated May 22, 2012, p. 44 (SX Ex. 211-RP).

197 Frear Affirmative Hearing Testimony, pp. 788-789; Annual Stockholder Meeting presentation, Sirius XM Radio, Inc., Form 8-K dated May 22, 2012, p. 34 (SX Ex. 211-RP).

198 Annual Stockholder Meeting presentation, Sirius XM Radio, Inc., Form 8-K dated May 22, 2012, p. 21 (SX Ex. 211-RP).

199 In a recent presentation to its shareholders, Sirius XM listed "Long term OEM agreements" as one of Sirius XM's competitive advantages, states that it expects approximately one million gross activations in 2012 from used cars, and that factory-enabled vehicles in operation are to "increase dramatically". See Annual Stockholder Meeting presentation, Sirius XM Radio, Inc., Form 8-K dated May 22, 2012, pp. 21, 29, and 33 (SX Ex. 211-RP).

200 Stowell Testimony, p. 8.

201 Stowell Testimony, pp. 8-11. Mr. Karmazin publicly noted that auto sales are expected to climb to 14.3 million in 2012, which provides "nice momentum for [Sirius XM's] growth." "SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, May 1, 2012, p. 3 (SX Ex. 221-RP). Mr. Karmazin had earlier stated in late 2011 that "[i]n fact, most forecasters believe auto sales will continue to grow for several years as Americans begin to more quickly replace the country's aging fleet of vehicles." "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 4 (SX Ex. 226-RP).

202 Stowell Testimony, p. 14.

203 Stowell Testimony, p. 8.

stock prices are not a measure of disruption.[204] From an economics perspective, analyzing Sirius XM's stock price in this way does not make sense for at least two reasons. First, multiple factors affect stock prices, and modeling the effect of any one of those components (e.g., the royalty rate) is accompanied by great uncertainty. Second, it does not follow that a lower stock price is necessarily an indication of a higher probability of disruption. Notably, changes in new auto sales (as measured by the seasonally adjusted annual rate, or "SAAR") do *not* explain changes in Sirius XM's EBIT, or changes in the more-appropriate EBITDA and free cash flow figures that I analyze. As Mr. Frear stated in Sirius XM's fourth-quarter 2011 earnings call,

> Sirius XM has shown a consistent ability to deliver solid operating performance under less than ideal conditions. The last three years has [sic] been tough on consumers and the worst stretch for the auto industry since 1981 to 1983. Despite that, we have significantly grown subscribers, revenue, EBITDA, and free cash flow, and significantly reduced our leverage."[205]

91. The Sirius XM testimonies regarding the relation between Sirius XM's stock price and the SAAR are additionally misleading, in that they equate new automobile sales with the company's ability to generate *any* future business activity, and not simply with its ability to obtain *new* subscribers. It is unrealistic to assume that a drop in automobile sales would somehow cause Sirius XM's existing subscribers to become dissatisfied with the service and cancel their subscriptions (and for that matter, for the used-car market to lose its appeal as a potential reservoir of new customers).

92. To address the impact of new client acquisitions on whether the proposed rates would be disruptive, I repeat my analysis assuming no future growth in net subscribers. As I show in Appendix A.5, even if Sirius XM obtains zero net subscriber additions (from new automobile sales, used automobile activations, or otherwise, an unlikely outcome), *and* fails to enact any price increases (U.S. Music Royalty Fee or otherwise) the rates proposed by SoundExchange would still not be expected to be disruptive to Sirius XM's business.

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204 In the Matter of Adjustment of Rates and Terms for Preexisting Subscription Services and Satellite Digital Radio Services, Docket No. 2006-1 CRB DSTRA, Rebuttal Testimony of Steven Herscovici, July 24, 2007, p. 34.

205 "SIRI - Q4 2011 Sirius Satellite Radio Earnings Conference Call," Thomson Reuters StreetEvents, February 9, 2012, p. 6 (SX Ex. 224-RP).

93. Similarly, Mr. Stowell overstates Sirius XM's dependence on new car sales because he erroneously diminishes the importance of used car sales. Mr. Stowell claims that "[l]ess than 1% of Sirius XM's subscribers are projected to be attributable to used car sales by the end of 2012" and that over the coming years "nearly all new subscribers are projected to be attributable to new car sales."[206] Both of these assertions are demonstrably false. In fact, Sirius XM expects to add approximately one million self-pay subscribers through used car sales in 2012 alone.[207] Sirius XM's internal documents show that used car sales accounted for [[redacted]]% and [[redacted]]% of new self-pay subscribers in 2010 and 2011, with the percentage expected to grow to [[redacted]]% in 2012.[208] As Mr. Karmazin explained:

> I can't underestimate the importance that the used cars and second owner and third owner are going to represent for us. So, as we have begun to get to the point where customers have gotten satellite radio in their vehicles and now they are selling those vehicles and hopefully they are going to continue to be a subscriber when they buy a new one, now the key for us is to get those vehicles that are now on the used car lots to get those people who're buying that vehicle to subscribe.[209]

94. Furthermore, while Mr. Stowell cites credit analysts to describe a dependency of Sirius XM on auto sales,[210] he fails to mention that credit analysts' optimism surrounding the automobile industry is one of the *causes* of the favorable outlook revision recently assigned to Sirius XM, as Standard & Poor's clearly states in a document relied upon by Mr. Stowell:

> We are revising our outlook on the company to positive from stable. This reflects our view that a continued recovery in auto sales will enable Sirius XM to maintain subscriber growth and strengthen credit measures over the intermediate term.[211]

95. Thus, consistent with my analysis, Standard & Poor's relates automobile sales to Sirius XM's subscriber growth, and not to Sirius XM's current level of revenue.

96. Finally, Mr. Stowell's regression analysis of Sirius XM and the automobile industry (in his

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206 Stowell Testimony, pp. 8-9.

207 Frear Affirmative Hearing Testimony, p. 790.

208 SXM_CRB_DIR_00089920-960 at 936 (SX Trial Ex. 15).

209 SXM_CRB_DIR_00020617-626 at 620 (Bank of America Merrill Lynch Media, Communications & Entertainment Conference, September 14, 2011).

210 Stowell Testimony, p. 11.

211 SXM_CRB_DIR_EXP_00005363-368 at 364.

Exhibit 1) is flawed from an econometrics perspective. Mr. Stowell commits numerous important errors, some of which "virtually every textbook on econometric methodology contains explicit warnings" against.[212] Due to the econometric errors that I further describe in Appendix B, as well as the reasons provided above, Mr. Stowell's analysis of Sirius XM's dependency on the automotive industry is irrelevant to an analysis of the potential disruptive impact introduced by the proposed rates.

D. Risks Associated with Sirius XM's Debt Are Overstated

97. The testimonies of Mr. Stowell, Mr. Karmazin, and Mr. Frear each describe Sirius XM's struggle to refinance in early 2009 (the company ultimately gained access to capital in February 2009).[213] However, their descriptions of the company's near-bankruptcy are irrelevant to a current analysis of the likelihood that the royalty rates proposed by SoundExchange would disrupt Sirius XM's business. The two conditions that gave rise to Sirius XM's near bankruptcy (a severe credit crisis and imminent need to obtain capital) are no longer present.

98. Firstly, Sirius XM does not anticipate an imminent need to obtain capital in the near future, nor is it likely that Sirius XM will have difficulties raising capital, should additional capital be needed; in fact, the *opposite* is true. As Mr. Karmazin explained:

> [Sirius XM management is] extremely pleased with the market view of [Sirius XM's] credit quality and access to credit (….)
>
> [Sirius XM] will have nearly $1.5 billion of liquidity at [its] disposal by the end of 2012. [The company] will have the flexibility to use this liquidity to grow [the] business, ensure a low cost of debt, make acquisitions and return capital to shareholders.[214]

99. Sirius XM's management's often repeated interest in returning capital to shareholders (or seemingly less likely, using its "excess cash" to buy another company) is probably the clearest indication that Sirius XM's financial performance is not only solid but also expected by management to remain solid in the future. When asked about returning capital in an interview, Mr. Karmazin answered:

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212 Granger, C.W.J. and P. Newbold, "Spurious Regressions in Econometrics," Journal of Econometrics, 1974, pp. 111-120.

213 Stowell Testimony, pp. 2 and 5-7; Karmazin Testimony, p. 3; Frear Testimony, pp. 3-7; Frear Affirmative Hearing Testimony, p. 743.

214 "Sirius XM Radio Inc., Q3 2011 Earnings Call," Capital IQ, November 1, 2011, p. 4.

> You could return the capital to shareholders. At the end of this year, at the end of this year, **we'll have between a $1.2 billion and a $1.5 billion** [sic] **of cash on our balance sheet. I don't know what to do with it** other than to use it as you're characterizing.[215] [emphasis added]

100. Returning capital to shareholders is a discretionary cash outflow from the business – and an indication that management has excess cash on hand, something that is nearly impossible for a cash-starved business that is seeking additional capital in order to stay afloat. Indeed, academic research shows that management initiation of dividends is a strong signal of positive and sustainable performance.[216]

101. As noted earlier, Mr. Frear and Mr. Karmazin told investors that Sirius XM "will very comfortably cover our 2013 to '15 [debt] maturities out of the cash flow of the business."[217] These are the very same debt maturities that Sirius XM now claims to this Court pose a serious risk of disruption to the business.

102. Sirius XM management's belief that the company has "sufficient cash, cash equivalents and marketable securities to cover [its] estimated funding needs (....) [and that] it will be able to generate sufficient revenues to meet [its] cash requirements"[218] is consistent with the liquidity opinion issued by Moody's Investors Service (an agency that both Mr. Stowell and I rely on). Moody's assesses Sirius XM's "ability to generate cash from internal resources and the availability of external sources of committed financing, in relation to its cash obligations over the coming 12 months. [It also considers] the likelihood that committed sources of financing will remain available."[219] Moody's assigns Sirius XM a rating indicative of good liquidity (SGL-2), reflecting their assessment that Sirius XM is likely to meet its obligations over the coming 12 months through internal resources (but may rely on external sources of committed

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215 Marchese, Steffanie, "CNBC Exclusive: CNBC Transcript: Sirius XM Radio CEO Mel Karmazin Speaks with CNBC's Jim Cramer Tonight on 'Mad Money w/Jim Cramer'," March 9, 2012. See also video at http://video.cnbc.com/gallery/?video=3000077392.

216 Healy, Paul M. and Krishna G. Palepu, "Earnings information conveyed by dividend initiations and omissions," Journal of Financial Economics, 1988, pp. 149-175.

217 SXM_CRB_DIR_00020688 - 698 at SXM_CRB_DIR_00020695 (SX Ex. 228-RP). Mr. Karmazin made the same point: "So in taking a look at what our longer-term debt profile is, you really do need to factor in what we will be going into those years with in cash on those balance sheets. And I believe that where we are today, certainly, we don't see any impediment to the debt maturities not being able to easily being handled by our cash that we would have on hand."

218 Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 42 (SX Ex. 231-RP).

219 Moody's Investors Service, "Rating Symbols and Definitions," June 2012, p. 29.

financing).[220] Sirius XM's ability to access committed sources of financing is "highly likely" based on Moody's evaluation of near-term covenant compliance.[221]

103. Standard & Poor's reached a similar conclusion after assessing Sirius XM's access to capital. According to Standard & Poor's, "Sirius XM has adequate sources of liquidity, in our view, to cover its needs over the next 12 to 24 months, even in the event of moderate unforeseen EBITDA declines."[222] It anticipates, among other factors, that net sources of cash would be positive, "even with a 20% drop in EBITDA over the next 12 months," that Sirius XM "has the capacity to absorb high-impact, low-probability shocks over the coming 12 months," and that Sirius XM "has a generally satisfactory standing in the credit markets."[223]

104. In fact, while many companies, including Sirius XM, struggled with the capital markets of the financial crisis, Mr. Frear admitted his belief that Sirius XM "was the only company [within its] credit rating to successfully place debt financing in the marketplace after the collapse of Lehman and through the close of the Liberty Media transaction."[224] Thus, a straight-forward interpretation of Mr. Frear's statement is that Sirius XM's creditworthiness has been at the top of its ratings class.

105. While Sirius XM shared in the economy-wide difficulties of the credit crisis, its access to capital markets has since remained open. The written testimonies of Sirius XM's witnesses describe the $300 million note that the company struggled to refinance[225] but do not mention that Sirius XM has successfully raised over $2,000 million in debt within the two-year period following the "near bankruptcy experience" (to include $700 million in October 2010, $786 million in March of 2010, $244 million in August of 2009, and $488 million in June of 2009 – less than half a year after the near-bankruptcy experience).[226]

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220 Capital IQ; Moody's Investors Service, "Rating Symbols and Definitions," June 2012, p. 29.

221 Moody's Investors Service, "Rating Symbols and Definitions," June 2012, p. 29.

222 SXM_CRB_DIR_EXP_00005373-379 at 376.

223 SXM_CRB_DIR_EXP_00005373-379 at 376.

224 Frear Affirmative Hearing Testimony, p. 743.

225 Frear Testimony, p. 3.

226 Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, pp. F-27-F-28 (SX Ex. 231-RP). See also Sirius XM Radio, Inc., Form 8-K dated May 22, 2012, p. 41. In his Affirmative Hearing Testimony, Mr. Frear admitted that credit markets recovered "not long after [Sirius XM] took the Liberty Media money." See Frear Affirmative Hearing Testimony, pp. 743-744.

106. Additionally, Sirius XM's most recently-formed internal projections show that management intends to [[redacted]] [227] Under these projections, the firm will [[redacted]].[228] Sirius XM's balance sheet projection includes debt falling [[redacted]].[229]

107. In his Affirmative Hearing Testimony, Mr. Frear testified that the debt market has recognized Sirius XM's rapidly improving prospects.[230] I also analyzed the debt market via Sirius XM's bond yields, which reveal that investors in Sirius XM's debt assign it a low risk, in comparison to both the company's 2009 risk levels (as Mr. Frear rightly concludes) and the lowest-rated investment grade companies today.[231] Attachments 16 and 17 illustrate the comparison of the weighted-average yield of Sirius XM's debt to indices of various credit rating levels (with BBB corresponding to Baa, the lowest investment-grade rating). The yields currently correspond most closely with the BBB index when excluding the convertible bond, and are below the BBB index when including the convertible bond. Sirius XM's bond yields show that investors perceive the company's risk to resemble that of the lowest investment-grade companies.

108. Even if Sirius XM did anticipate major capital needs in the upcoming period, Mr. Frear's "stated reasons that potential investors declined to invest in the company during [the late 2008 through early 2009] period of crisis" include a history of losses, negative margins, business risk, a risk of loss in market share due to new competition and technology, dependence on the automotive industry, cash redemptions facing institutional investors, and Sirius XM not being a good fit for traditional investors.[232] Notably, the level of royalties paid to SoundExchange was *not* among the reasons cited on the list.

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227 The Frear Hearing Testimony also explains that Sirius XM is buying debt in the open market. See Frear Affirmative Hearing Testimony, pp. 750-751.

228 SXM_CRB_DIR_00031738, p. 23 (SX Trial Ex. 9).

229 SXM_CRB_DIR_00031738, p. 29 (SX Trial Ex. 9).

230 Frear Affirmative Hearing Testimony, p. 749.

231 Lys Testimony, pp. 30-31.

232 Frear Testimony, p. 3.

109. By every measure, Sirius XM faces little risk of a crippling debt crisis, and certainly not one precipitated by an increase in the sound recording royalty.

E. Risks Associated with Future Competition Are Contradicted by Sirius XM's Witnesses

110. Sirius XM has suggested that its business will be disrupted by increased competition in the future from new technologies, most notably internet radio. Analysis of such issues is beyond the purview of this report, but I note that Sirius XM's public statements do not support its litigation position. In particular, David Frear publicly stated that "if there is going to be a disruptive technology impact to [Sirius XM's] business, [he thinks] we would have seen it already."[233]

VIII. THE PAST IS NOT PROLOGUE

111. Sirius XM's witnesses analyze the company's past financial history when attempting to assess its future prospects. However, their treatment of history's importance is internally conflicted – statements range from "it is not prudent to assume that the [favorable] status quo will continue"[234] to "[g]iven this history of financial turmoil, it is [Mr. Stowell's] opinion that Sirius XM may find itself in yet another period of financial distress."[235] The sources that both Mr. Stowell and I consider clearly show that the company's performance has improved substantially since the financial crisis, which is consistent with the statements made by Sirius XM's management publicly, internally, and to the credit rating agencies. By considering only the more-distant history of Sirius XM's efforts to raise capital during a credit crisis and downplaying the more-recent history of Sirius XM's financial successes, growth, expectations, and access to capital, the Sirius XM witnesses offer a biased perspective of the past.

112. The Sirius XM testimonies place an inappropriate emphasis on past costs. For example, Mr. Karmazin states that "[a]fter two decades of substantial losses, even our recent profitability hardly makes a dent in recovering the several billions of dollars in capital that were invested

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233 "SIRI - Sirius Satellite Radio at Morgan Stanley Technology, Media & Telecom Conference," Thomson Reuters StreetEvents, February 28, 2012, p. 11 (SX Ex. 223-RP).

234 Stowell Testimony, p. 11.

235 Stowell Testimony, pp. 2-3.

to launch Sirius and XM and bring the Company to where it is now."[236] An analysis predicting the likely impact of a royalty rate increase is necessarily forward-looking. Sirius XM's analysis, however, suffers from the "sunk cost fallacy." As a leading accounting textbook explains, sunk costs are "[p]ast costs that current and future decisions cannot affect and, hence, that are irrelevant for decision making."[237] The sunk cost fallacy is committed by incorrectly considering sunk (unchangeable) costs when making decisions about future activities. Regardless of their size, the upcoming royalty rates cannot change the fact that Sirius XM's founders chose to establish a business that required investments in satellites, marketing, and otherwise.

113. Mr. Stowell's explanation for analyzing EBIT as opposed to EBITDA also suffers from the sunk cost fallacy. EBIT is lower than EBITDA by the amount of depreciation and amortization – two non-cash deductions from EBITDA that actually provide a cash benefit to the company by extending Sirius XM's existing tax shield. Mr. Stowell explains his reliance on EBIT by stating:

> I examine EBIT, Earnings Before Interest and Taxes, as opposed to EBITDA, because depreciation and amortization are costs associated with past investments. EBIT measures profitability after subtracting these costs, making it a more appropriate measurement of the total amount of cash available for payment to SoundExchange and investors.[238]

Here, Mr. Stowell incorrectly states that EBIT is a measure of cash available when it is not. Furthermore, his choice to consider costs associated with past investments clearly suffers from the sunk cost fallacy.

114. In an extension of the sunk cost fallacy described above, Sirius XM's witnesses also inappropriately focus on the time required to "pay back" Sirius XM's previous losses and capital expenditures. For example, Mr. Frear states that "[a]ny increase to [Sirius XM's] costs, such as an increase in the SoundExchange royalty rate, will only lengthen the time it

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236 Karmazin Testimony, p. 18. See also Karmazin Testimony, p. 3.

237 Stickney, Clyde P., Roman L. Weil, Katherine Schipper and Jennifer Francis, *Financial Accounting*, 2010, p. 912. Income tax considerations can make past costs relevant, however Sirius XM is not expected to pay income taxes in the upcoming royalty period.

238 Stowell Testimony, p. 14, footnote 34.

takes to recoup [the losses sustained in the past two decades]."[239] Mr. Karmazin similarly testifies that "even with [Sirius XM's] now-positive annual earnings, it likely will take years of sustained performance for the Company just to break even on a cumulative basis."[240] Sirius XM is not disrupted if the date on which it recoups its past losses shifts from one period to the next. Even within the traditional application of the "payback method" of decision making (minor project-based decisions made by junior management) the method is considered "conceptually wrong," that it can lead to "flagrantly foolish decisions if it is used too literally," and that financial decision makers should "be careful not to accept the sloppy financial thinking" that methods such as the payback method represent.[241]

115. "Recouping" past losses will only create a windfall gain to current investors, and will not provide any recovery to the investors who previously owned Sirius XM's stock.

116. Moreover, Mr. Stowell's analysis concerning the effect of the royalty rate during the current rate term on Sirius XM's cumulative EBIT is plainly wrong and displays a severe ignorance about Sirius XM's business. Mr. Stowell's analysis purports to show that increased royalty rates during the current rate term kept Sirius XM farther away from achieving positive cumulative EBIT.[242] The problem is that Mr. Stowell failed entirely to account for the fact that, as shown earlier, Sirius XM recovered nearly all of the increased royalties through the Music Royalty Fee while it was at the same time constrained from raising prices under the FCC Merger Order. As a result, the increased royalty costs had very little impact on Sirius XM's EBIT during the current rate term. Mr. Stowell simply assumed that Sirius XM's revenues would have remained constant even if the royalty rate had remained at 2 percent.[243] In reality, Sirius XM's revenues would have dropped substantially without the royalty rate increase because its Music Royalty Fee revenue would have dropped substantially and it would not have been permitted to make up that lost revenue through higher prices. Because

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239 Frear Testimony, pp. 7-8.

240 Karmazin Testimony, p. 18.

241 Ross, Stephen A., Randolph W. Westerfield and Jeffrey Jaffe, *Corporate Finance*, 2005, pp. 148-149.

242 Stowell Testimony, p. 16.

243 Stowell Testimony, p. 15; Stowell Affirmative Hearing Testimony, pp. 1247-1250. Mr. Stowell apparently views the Music Royalty Fee "as a cost, not as revenue." Stowell Affirmative Hearing Testimony, p. 1262. Sirius XM, on the other hand, takes a very different view that the Music Royalty Fee is a significant revenue source. See, e.g., Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 27 (SX Ex. 231-RP).

Mr. Stowell failed to take this into consideration, and simply assumed that the Music Royalty Fee would have remained constant regardless of the royalty rate, his analysis in Exhibits 4 and 5 and paragraphs 31 and 33 is entirely unreliable.

IX. SIRIUS XM'S REVENUE DEFINITION SHOULD BE REJECTED BECAUSE IT IS OPEN TO MANIPULATION AND LACKS TRANSPARENCY

117. I understand that the royalty rates proposed by SoundExchange are intended to apply to a revenue base that removes many of the carve-outs to the revenue definition proposed by Sirius XM (which is identical to the current revenue definition). While in theory it is possible to increase a proposed royalty percentage to achieve the same outcome when applied to a smaller revenue base, doing so creates other problems. From an accounting perspective, it is always preferable to base contracts on a financial definition that is clear-cut to administer and easy to audit. For revenue, such a definition requires clear rules as to what is and is not included in the revenue measure as well as the availability of reliable financial records to implement the measure. Where a revenue definition is open to multiple interpretations or where the definition permits a party to exclude revenue that cannot be accounted for through general ledger accounts maintained in the ordinary course of business, the definition is virtually certain to be deficient from an accounting and auditing perspective.

118. The revenue definition proposed by Sirius XM should be rejected because it contains ambiguous revenue carve-outs that Sirius XM has manipulated to report lower revenue during the past rate term and is likely to continue manipulating in the future. As I noted in my Affirmative Testimony, during the past rate term Sirius XM has generally reported to SoundExchange approximately[[redacted]] percent of its total revenue.[244] There are some carve-outs that I understand are warranted under the current regulations, and SoundExchange has maintained them in its proposed revenue definition. But the single largest carve-out that Sirius XM has been awarding itself – deducting revenue based on performances of pre-1972 recordings[245] – is highly problematic from accounting and auditing perspectives and is sure to lead to continued disputes between the parties. In particular, Sirius XM proposes that the Court maintain the current carve-out in 37 C.F.R. § 382.11(3)(vi)(D), which provides that

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244 Lys Testimony, p. 25.

245 See, e.g., SXM_CRB_DIR_00030512 (SX Ex. 242-RR); SXM_CRB_DIR_00032588; SXM_CRB_DIR_00033301.

Sirius XM may exclude:

> Revenues recognized by Licensee for the provision of . . . Channels, programming, products and/or other services for which the performance of sound recordings and/or the making of ephemeral recordings is exempt from any license requirement or is separately licensed, including by a statutory license and, for the avoidance of doubt, webcasting, audio services bundled with television programming, interactive services, and transmissions to business establishments.[246]

119. Sirius XM has interpreted this provision to allow it to exclude roughly between [[redacted]] and [[redacted]]% of revenue on the basis that it "recognizes" that revenue for the provision of pre-1972 recordings, thereby lowering its sound recording royalty costs by the same percentage.[247] However, Sirius XM did not actually recognize any revenue on its books for those recordings. One cannot go to Sirius XM's general ledger, or to any other accounting records, and identify any revenue associated with pre-1972 recordings.[248] That is because no subscriber paid any amount of money for access to Sirius XM's pre-1972 recordings. Rather, these recordings were simply part of the mix of content on Sirius XM's service – no different than the non-music content Sirius XM also offers – for which there is no charge and no revenue recognized by Sirius XM.[249]

120. To show the irrationality of Sirius XM's interpretation of the revenue definition it seeks to retain, Sirius XM actually deducts the same [[redacted]] to [[redacted]]% from revenue it collects for the

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246 37 C.F.R. § 382.11(3)(vi)(D).

247 See, e.g., SXM_CRB_DIR_00030512 (SX Ex. 242-RR); SXM_CRB_DIR_00032588; SXM_CRB_DIR_00033301. As Sirius XM explained in response to Interrogatory No. 5, it [[redacted]]." In particular, "[[redacted]]." Sirius XM Radio Inc.'s Responses and Objections to SoundExchange's First Set of Interrogatories, pp. 10-11.

248 Sirius XM has sought to exploit the fact that this provision, unlike 37 C.F.R. § 382.11(3)(vi)(A) and (B), does not require that the programming be "offered for a separate charge." But this has simply led, and would likely continue to lead, to arbitrary allocations by Sirius XM not tied to any verifiable accounting of revenue. That is exactly the type of revenue carve-out that should be avoided.

249 My testimony does not address whether some adjustment for pre-1972 recordings may be appropriate or not.

Music Royalty Fee as revenue "recognized" for pre-1972 recordings.[250] Even though the Music Royalty Fee is supposed to pass through only royalty costs actually incurred, Sirius XM effectively claims (through this deduction) that it earns [[redacted]] to [[redacted]]% of the Music Royalty Fee for pre-1972 recordings upon which it claims to owe no sound recording royalty. In other words, if one were to believe these allocations to be accurate, Sirius XM would simply be pocketing a portion of the Music Royalty Fee as pure profit, not as a royalty cost pass-through. This makes no sense and displays exactly how Sirius XM wishes to retain a revenue definition that it can manipulate to lower royalty costs. Indeed, if Sirius XM had actually earned part of the Music Royalty Fee for recordings upon which it owed no royalties, Sirius XM presumably would have violated the FCC Merger Order.

121. From an accounting and auditing perspective, any revenue carve-outs should be tied to clearly defined accounting records maintained in the ordinary course of business. In general, it is far better to adjust the royalty rate (where necessary) rather than to permit revenue carve-outs that may allow for arbitrary allocations and manipulation as have occurred and would likely continue to occur under the revenue definition Sirius XM proposes. Because Sirius XM's proposed revenue definition, as interpreted by Sirius XM during the current rate term, allows for such arbitrary allocations and manipulation, it should be rejected in favor of SoundExchange's more objective and verifiable definition of revenue.

X. DR. NOLL'S "UNIQUE COST OF DELIVERY" ANALYSIS AND ACCOUNTING IS UNRELIABLE

122. I have been asked to evaluate from an accounting and finance perspective the reliability of Dr. Noll's analysis of the "unique costs" of Sirius XM's satellite delivery system.[251] To begin with, I find Dr. Noll's argument and methodology to be illogical because costs are almost never equivalent to value added, and more importantly, there is no basis for giving Sirius XM's delivery costs complete precedence over other costs, such as those associated with creating content. For example, if the costs of the satellite delivery system were equal to 100 percent of the price subscribers paid, it would make no sense to assume that all of the value

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250 See, e.g., SXM_CRB_DIR_00030512 (SX Ex. 242-RR); SXM_CRB_DIR_00032588; SXM_CRB_DIR_00033301.

251 Revised Amended Written Direct Testimony of Roger G. Noll, May 17, 2012 (SXM Dir. Trial Ex. 1) ("Noll Testimony"), pp. 85-88.

from the service was derived from delivery system and none of the value from the content.

123. Even assuming there were some logic to his analysis (despite the fact that I cannot find any), Dr. Noll has improperly classified costs that have nothing to do with the satellite delivery system to inflate the supposed unique costs to transmit and deliver satellite radio services to vehicles.[252] In particular, Dr. Noll has included various marketing costs and incentive payments to automakers that are meant to help attract new subscribers, not to transmit and deliver satellite radio service.[253] The rationale for these classifications is supposedly confirmed by Mr. Frear,[254] but Mr. Frear's testimony only confirms the *inappropriateness* of these cost classifications.[255] It may well be that "attracting and retaining subscribers is among the Company's largest and most important costs," but that is true with every subscription-based company, including Internet music providers.[256] That Sirius XM chooses to share a portion of its revenue with automakers and to give them incentive payments to install satellite radios in cars may well be a good use of its marketing resources, but these payments cannot reasonably be viewed as part of the satellite delivery system. Indeed, if these costs are properly thought of as part of the delivery system, then virtually *all* of Sirius XM's costs including, for example, customer care, could be so classified as well.

124. Dr. Noll's analysis is highly dependent on his improper inclusion of these marketing and subscriber acquisition costs. If one removes these improper inclusions but otherwise applies the same analysis, the value of music becomes $5.37, not $3.45 as Noll estimates.[257]

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252 See Noll Testimony, Table 3.

253 I note also that Noll has simply assumed that all engineering costs are related to the satellite delivery system. But we know that is inaccurate because Sirius XM has spent millions of dollars in recent years developing Sirius XM 2.0, which is an internet-based delivery system. See, e.g., Karmazin Testimony, p. 4.

254 Noll Testimony, p. 85.

255 Frear Testimony, pp. 9-12.

256 For example, between 2009 and 2011, Pandora has spent between 24 percent and 32 percent of its total revenues on sales and marketing alone. Pandora Media, Inc., Form 10-K for the fiscal year ended January 31, 2012, p. 48-49. These types of costs of attracting subscribers are simply not unique to satellite radio.

257 See Noll Testimony, p. 89, Table 3, and Table 4; Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 26; SXM_CRB_DIR_EXP_00000014; SXM_CRB_DIR_00031738 (SX Trial Ex. 9).

Figure 10
Dr. Noll's Value of Music Analysis
Excluding Marketing and Sales and Subscriber Acquisition Cost
(in $ Thousands)

Satellite and Transmission	$	80,974
Engineering Design and Development	$	45,390
Depreciation and Amortization	[redacted]	
Total		
Subscribers (Millions)		19.385
Per Subscriber Per Month	[redacted]	
With Noll Return on Investment (16.7%)		
ARPU (According to Dr. Noll)	$	11.38
Revenue - Cost	$	9.74
Music Value (55.1%)	$	5.37

125. Moreover, Dr. Noll's analysis is also highly dependent on timing and number of subscribers. Because most of the costs that Dr. Noll has allocated are relatively fixed, the per subscriber amounts vary inversely with the number of subscribers. If he had performed this analysis several years ago, when Sirius and XM had far fewer subscribers, then Dr. Noll's analysis would have found that the costs of the delivery system (as he improperly defines those costs) were nearly equal to revenues, i.e., provided nearly all of the value, in Dr. Noll's view. Similarly, if Dr. Noll completed his analysis for years during the coming rate term, rather than as of 2010, the analysis would show lower unique costs per subscriber and a higher value of music. This is because most of the satellite delivery costs are fixed while the number of subscribers is expected to grow. To demonstrate this point, I replicated Dr. Noll's analysis for 2016 using Sirius XM's latest projections.[258,259]

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258 Because the cost projections do not totally line up with Dr. Noll's allocations (in part because he has allocated only portions of certain cost categories), I have examined the projected increase or decrease in the overall cost categories as detailed in SXM_CRB_DIR_00031738 (SX Trial Ex. 9). I have assumed that the cost portions that Dr. Noll allocated would rise or fall at roughly the same percentage as the overall category. While these estimates are rough, they do not affect the overall point that subscribers are expected to increase substantially while total costs are mostly flat or falling (with the noted exception of OEM Revenue Share, which rises with increased revenue).

259 See Noll Testimony, Table 3 and Table 4; SXM_CRB_DIR_00031738 (SX Trial Ex. 9).

Figure 11
Dr. Noll's Value of Music Analysis
Sensitivity Calculating Percent Change Using Historical and Projected Costs
(in $ Thousands)

	2010	Percent Change	2016
Satellite and Transmission	$ 80,947	[redacted]	[redacted]
Engineering Design and Development	$ 45,390	[redacted]	[redacted]
Marketing and Sales	[redacted]	[redacted]	[redacted]
Subscriber Acquisition Cost	$ 413,041	[redacted]	[redacted]
Depreciation and Amortization	[redacted]	[redacted]	[redacted]
OEM Revenue Share	[redacted]	[redacted]	[redacted]
Total	[redacted]	[redacted]	[redacted]
Subscribers (Millions)	19.385		[redacted]
Per Subscriber Per Month	$ 4.39		$ 3.25
With Noll Return on Investment (16.7%)	$ 5.12		$ 3.80
ARPU (According to Dr. Noll)	$ 11.38		$ 11.38
Revenue - Cost	$ 6.26		$ 7.58
Music Value (55.1%)	$ 3.45		$ 4.18
Music Value With 2016 Projected ARPU			$ 5.18

126. Based on these projections, and assuming average revenue per user remained constant, the value for music in 2016 (as defined by Dr. Noll) would rise from $3.45 to $4.18. If I use Sirius XM's projected average revenue per user (excluding advertising revenue) for 2016, the value of music (as defined by Dr. Noll) rises even further to $5.18. This analysis demonstrates that the value of the delivery system and the value for music under Dr. Noll's methodology are highly dependent on timing and the number of subscribers. Dr. Noll's analysis of these costs for 2010 is not a reliable indicator of what these costs are likely to be during the coming rate term. Moreover, my calculations also demonstrate a fundamental flaw in Dr. Noll's analysis because there is no reason to believe the *values* of the satellite delivery system and the content should rise or fall based on the number of subscribers, but that is exactly what Dr. Noll's methodology assumes. In short, Dr. Noll's methodology and his application of that methodology are simply not reliable.

XI. CONCLUSION

127. While Sirius XM's witnesses acknowledge that Sirius XM's performance has improved and are optimistic about the company's future, their overall conclusion that increases to the royalty rate will likely disrupt Sirius XM's business is incorrect and unfounded. The analyses

contained within the written testimonies of Mr. Stowell, Mr. Karmazin, and Mr. Frear focus on risks faced by Sirius XM and the overall economy, risks my testimony considers as well, but they do not analyze the incremental impact of increased royalty rates. The rates proposed by SoundExchange are too small in magnitude to cause a likely disruption, even if several of the considered risk factors ultimately do degrade Sirius XM's future performance. As my analyses show, based on Sirius XM's own internal forecasts and the forecasts of investment analysts, the likelihood that the royalty rate increases proposed by SoundExchange would disrupt Sirius XM's business is de minimus.

128. Furthermore, the Sirius XM testimonies downplay the success and relevance of the U.S. Music Royalty Fee. If the company effectively passes on most or all of the increased rates along to subscribers, its financial performance will not be materially different than if the royalty rates payable remain unchanged.

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

Date: July 2, 2012

Thomas Lys

Thomas Z. Lys

APPENDIX A [RESTRICTED]
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates

The following analyses are based on a variety of projections, which include those conducted by personnel at Sirius XM as well as by Morgan Stanley analysts. These sensitivity analyses additionally illustrate, contrary to the claims of Sirius XM's witnesses, that the proposed royalty rates would not likely disrupt the company even if, for example, auto sales are lower than currently expected, competition erodes Sirius XM's subscriber base, or the actual revenue, EBITDA, and free cash flow growth rates fall all the way to zero.

Appendix A.1: Based on Sirius XM Internal 2011 "Baseline" Scenario [RESTRICTED]

In this attachment, historical figures and projections through 2016 are obtained from Sirius XM's "Baseline" scenario included in the August 30, 2011 presentation titled "2011 Baseline LRS."[1] Projections 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)[2]; and ii) cost of revenue and EBITDA as percentages of revenue remain unchanged from the 2016 levels forecasted by Sirius XM.

- Number of years during 2013-2017 when zero or negative free cash flow occur: [0]
- 2013-2017 cumulative free cash flow: [[redacted]] million

Appendix A.2: Based on Sirius XM Internal 2011 "Downside" Scenario [RESTRICTED]

In this attachment, historical figures and projections through 2016 are obtained from Sirius XM's "Downside" scenario included in the August 30, 2011 presentation titled "2011 Baseline LRS."[3] Projections 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)[4]; and ii) cost of revenue and EBITDA as percentages of revenue remain unchanged from the 2016 levels forecasted by Sirius XM.

- Number of years during 2013-2017 when zero or negative free cash flow occur: [0]
- 2013-2017 cumulative free cash flow: [[redacted]] million

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1 SXM_CRB_DIR_00031738.

2 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

3 SXM_CRB_DIR_00031738.

4 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

Appendix A.3: Based on Sirius XM Internal 2010 "Conservative" Scenario [RESTRICTED]

In this attachment, historical figures and projections through 2015 are obtained from Sirius XM's "Conservative" scenario included in the September 9, 2010 presentation titled "Long Range Scenario (Downside Outlook)."[5] Projections for 2016 and 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)[6]; and ii) cost of revenue and EBITDA as percentages of revenue remain unchanged from the 2015 levels forecasted by Sirius XM.

- Number of years during 2013-2017 when zero or negative free cash flow occur: [0]
- 2013-2017 cumulative free cash flow: [[redacted]] million

Appendix A.4: Based on Sirius XM Internal 2010 "Downside" Scenario [RESTRICTED]

In this attachment, historical figures and projections through 2015 are obtained from Sirius XM's "Downside" scenario included in the September 9, 2010 presentation titled "Long Range Scenario (Downside Outlook)."[7] Projections for 2016 and 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)[8]; and ii) cost of revenue and EBITDA as percentages of revenue remain unchanged from the 2015 levels forecasted by Sirius XM.

- Number of years during 2013-2017 when zero or negative free cash flow occur: [0]
- 2013-2017 cumulative free cash flow: [[redacted]] million

Appendix A.5: Based on Assumption of Constant Revenue

In this attachment, historical figures for 2008 through 2011 are obtained from a May 1, 2012 Morgan Stanley Report.[9] This appendix assumes that revenue growth after 2011 falls to zero, and thus 2012 through 2017 revenue remains constant at the 2011 level while royalty rates increase. It is assumed that the 2011 ratios of EBITDA and free cash flow (before subtracting the impact of increased royalties) to revenue stay constant from 2012 through 2017.

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5 SXM_CRB_DIR_00031079.

6 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

7 SXM_CRB_DIR_00031079.

8 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

9 Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012.

- Number of years during 2013-2017 when zero or negative free cash flow occur: 0
- 2013-2017 cumulative free cash flow: $871.3 million

Appendix A.6: Based on Morgan Stanley May 1, 2012 Projections

In this attachment, historical figures and projections for 2008 through 2016 are obtained from the May 1, 2012 Morgan Stanley report.[10] Projections 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)[11]; and ii) cost of revenue and EBITDA as percentages of revenue remain unchanged from the 2016 levels projected by Morgan Stanley.

- Number of years during 2013-2017 when zero or negative free cash flow occur: 0
- 2013-2017 cumulative free cash flow: $4,975.8 million

Appendix A.7: Based on Sirius XM "Baseline" Scenario Presented to Ratings Agencies [RESTRICTED]

During a "Ratings Agency Update" presentation in October 2010, Sirius XM reported a "Baseline" scenario that contained financial projections through 2015.[12] This attachment uses historical figures and projections obtained from this "Baseline" presentation scenario. Projections for 2016 and 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)[13]; and ii) cost of revenue and EBITDA as percentages of revenue remain unchanged from the 2015 levels projected by Sirius XM.

- Number of years during 2013-2017 when zero or negative free cash flow occur: 0
- 2013-2017 cumulative free cash flow: [[redacted]] million

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10 Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012.

11 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

12 SXM_CRB_DIR_00021267-304.

13 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

Appendix A.8: Based on Morgan Stanley "Bear Case" Scenario

In this attachment, historical figures and projections are obtained from the May 1, 2012 Morgan Stanley report.[14] This report features a three-scenario analysis, including a "Bear Case":

> Competition for in-car listeners intensifies and suppresses FCF growth. In our bear case, SAAR is lighter (13.5M in '12, 13.5M in '13) and SIRI's share of in-car listeners erodes as internet radio services grow through proliferation of internet-enabled devices and improvements in 3G and 4G wireless broadband services, driving promo conversion rates down from ~45% in '11E to ~30% in '14E). Competition leads to flat pricing in '13 and '14 plus higher fixed costs, leading to a ~15% 3YR EBITDA CAGR ('12E-'14E) and ~$0.19 FCF/share in '15E.[15]

Projections for 2012 to 2015 account for this "Bear Case" scenario. Additionally, revenue and cost of revenue projections for 2015 to 2017 are calculated under the following assumptions: i) revenue grows 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)[16]; and ii) cost of revenue as a percentage of revenue remains unchanged from the 2014 level projected by Morgan Stanley. Projected figures for 2012 through 2014 EBITDA are calculated with the 15 percent growth rate stated in the "Bear Case" scenario, and EBITDA projections for 2015 through 2017 are calculated under the assumption that EBITDA as a percentage of revenue remains unchanged from the 2014 levels projected by Morgan Stanley. Free cash flow is assumed to grow linearly from the 2011 historical value to the 2015 figure projected under the "Bear Case" scenario. Projected figures for 2016 and 2017 free cash flow are calculated under the assumption that they 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)[17].

- Number of years during 2013-2017 when zero or negative free cash flow occur: 0
- 2013-2017 cumulative free cash flow: $3,335.5 million

Appendix A.9: Based on Nominal GDP Growth Rates

In this attachment, historical figures are obtained from the May 1, 2012 Morgan Stanley report.[18] Projections for 2012 to 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

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14 Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012.

15 Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, p. 2.

16 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

17 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

18 Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012.

GDP as projected by the United States Congressional Budget Office)[19]; and ii) cost of revenue and EBITDA as percentages of revenue remain unchanged from the 2011 levels projected by Morgan Stanley.

- Number of years during 2013-2017 when zero or negative free cash flow occur: 0
- 2013-2017 cumulative free cash flow: $994.4 million

Appendix A.10: Morgan Stanley Report Comparison – November 2011 and May 2012 Projections

Appendix A.10 compares historical and projected EBITDA and free cash flow using two different Morgan Stanley reports: the November 3, 2011 report[20] and the May 1, 2012 report.[21] Historical figures and projections from 2008 through 2008 through 2016 are obtained from each report. Projections 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)[22]; and ii) cost of revenue and EBITDA as percentages of revenue remain unchanged from the 2016 levels projected in each respective Morgan Stanley report. The EBITDA and free cash flow outputs from each analysis are compared. The maximum EBITDA projection deviation is $67.8 million in 2013, and the maximum free cash flow projection deviation is $179.8 million in 2014.

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19 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

20 Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011.

21 Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012.

22 Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012.

Appendix A.1 [RESTRICTED]
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Based on Sirius XM Internal 2011 "Baseline" Scenario
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical and Projected Total Revenue	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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
Historical and Projected Cost of Revenue	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Historical and Projected EBITDA	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
EBITDA Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**Not Included**	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Historical and Projected Free Cash Flow to Equity ("FCFE")	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**Not Included**	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Notes:

[1] Historical figures and projections for 2008 through 2016 were obtained from the August 30, 2011 Sirius XM "2011 Baseline LRS" presentation "Baseline" scenario. Historical and Projected Cost of Revenue is reported as "Revenue Share & Royalties" in the presentation. Historical and Projected EBITDA is reported as "Adj. Income (Loss) from Operations" in the presentation. Historical and Projected Free Cash Flow to Equity ("FCFE") is reported as "Free Cash Flow" in the presentation. See SXM_CRB_DIR_00031738, pp. 25-28.

[2] Projections for 2017 are calculated under the following assumptions: i) Total Revenue and FCFE 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) Cost of Revenue and EBITDA as percentages of Total Revenue remain unchanged from the 2016 levels projected by Sirius XM. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[3] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Sirius XM "2011 Baseline LRS" presentation "Baseline" scenario projections incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of revenue.

[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, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[6] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

Appendix A.2 [RESTRICTED]
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Based on Sirius XM Internal 2011 "Downside" Scenario
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical and Projected Total Revenue	Not Included	Not Included	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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
Historical and Projected Cost of Revenue	Not Included	Not Included	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Historical and Projected EBITDA	Not Included	Not Included	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
EBITDA Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**Not Included**	**Not Included**	**Not Included**	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Historical and Projected Free Cash Flow to Equity ("FCFE")	Not Included	Not Included	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**Not Included**	**Not Included**	**Not Included**	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Notes:

[1] Sirius XM notes that [[redacted]] See SXM_CRB_DIR_00031738, p. 37.

[2] Projections for 2012 through 2016 were obtained from the August 30, 2011 Sirius XM "2011 Baseline LRS" presentation "Downside" scenario. Projected Cost of Revenue is reported as "Revenue Share & Royalties" in the presentation. Projected EBITDA is reported as "Adj. Income (Loss) from Operations" in the presentation. Projected Free Cash Flow to Equity ("FCFE") is reported as "Free Cash Flow" in the presentation. See SXM_CRB_DIR_00031738, pp. 39-42.

[3] Projections for 2017 are calculated under the following assumptions: i) Total Revenue and FCFE 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) Cost of Revenue and EBITDA as percentages of Total Revenue remain unchanged from the 2016 levels projected by Sirius XM. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[4] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Sirius XM "2011 Baseline LRS" presentation "Downside" scenario projections incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of revenue.

[5] I assume that 100 percent of revenues are subject to royalty payments to SoundExchange in the years 2013 through 2017.

[6] This analysis incorporates zero additional revenue from the U.S. Music Royalty Fee, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[7] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

Appendix A.3 [RESTRICTED]
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Based on Sirius XM Internal 2010 "Conservative" Scenario
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical and Projected Total Revenue	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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
Historical and Projected Cost of Revenue	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Historical and Projected EBITDA	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
EBITDA Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**Not Included**	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Historical and Projected Free Cash Flow to Equity ("FCFE")	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**Not Included**	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Notes:

[1] Historical figures and projections for 2010 through 2015 were obtained from the September 9, 2010 Sirius XM "Long Range Scenario (Downside Outlook)" presentation "Conservative" scenario. Historical and Projected Cost of Revenue is reported as "Revenue Share, Royalties, and Residuals" in the presentation. Historical and Projected EBITDA is reported as "Adj. EBITDA" in the presentation. Historical and Projected Free Cash Flow to Equity ("FCFE") is reported as "Free Cash Flow" in the presentation. See SXM_CRB_DIR_00031079, pp. 24-25.

[2] Projections for 2016 and 2017 are calculated under the following assumptions: i) Total Revenue and FCFE 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 each year; and ii) Cost of Revenue and EBITDA as percentages of Total Revenue remain unchanged from the 2015 levels projected by Sirius XM. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[3] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Sirius XM "Long Range Scenario (Downside Outlook)" presentation "Conservative" scenario projections incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of revenue.

[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, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[6] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

Appendix A.4 [RESTRICTED]
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Based on Sirius XM Internal 2010 "Downside" Scenario
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical and Projected Total Revenue	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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
Historical and Projected Cost of Revenue	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Historical and Projected EBITDA	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
EBITDA Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**Not Included**	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Historical and Projected Free Cash Flow to Equity ("FCFE")	Not Included	Not Included	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**Not Included**	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Notes:

[1] Historical figures and projections for 2010 through 2015 were obtained from the September 9, 2010 Sirius XM "Long Range Scenario (Downside Outlook)" presentation "Downside" scenario. Historical and Projected Cost of Revenue is reported as "Revenue Share, Royalties, and Residuals" in the presentation. Historical and Projected EBITDA is reported as "Adj. EBITDA" in the presentation. Historical and Projected Free Cash Flow to Equity ("FCFE") is reported as "Free Cash Flow" in the presentation. See SXM_CRB_DIR_00031079, pp. 24-25.

[2] Projections for 2016 and 2017 are calculated under the following assumptions: i) Total Revenue and FCFE 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 each year; and ii) Cost of Revenue and EBITDA as percentages of Total Revenue remain unchanged from the 2015 levels projected by Sirius XM. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[3] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Sirius XM "Long Range Scenario (Downside Outlook)" presentation "Downside" scenario projections incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of revenue.

[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, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[6] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

Appendix A.5
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Based on Assumption of Constant Revenue
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical and Projected Total Revenue	$2,436.7	$2,526.7	$2,838.9	$3,025.4	$3,025.4	$3,025.4	$3,025.4	$3,025.4	$3,025.4	$3,025.4
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
Historical and Projected Cost of Revenue	$1,334.1	$1,211.8	$1,250.3	$1,287.2	$1,411.0	$1,551.6	$1,546.2	$1,681.1	$1,803.5	$1,897.3
Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	$121.0	$181.5	$242.0	$302.5	$363.0
Historical and Projected EBITDA	-$136.3	$462.5	$626.3	$731.0	$731.0	$731.0	$731.0	$731.0	$731.0	$731.0
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$121.0	-$181.5	-$242.0	-$302.5	-$363.0
EBITDA Incorporating Updated 2013-2017 Royalty Rate	**-$136.3**	**$462.5**	**$626.3**	**$731.0**	**$731.0**	**$610.0**	**$549.5**	**$489.0**	**$428.5**	**$368.0**
Historical and Projected Free Cash Flow to Equity ("FCFE")	Not Included	$185.9	$192.9	$416.3	$416.3	$416.3	$416.3	$416.3	$416.3	$416.3
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$121.0	-$181.5	-$242.0	-$302.5	-$363.0
FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**$185.9**	**$192.9**	**$416.3**	**$416.3**	**$295.3**	**$234.8**	**$174.3**	**$113.8**	**$53.3**

Notes:

[1] Historical figures and projections for 2008 through 2011 were obtained from the May 1, 2012 Morgan Stanley report. Historical and Projected EBITDA is reported as "Operating Cash Flow (EBITDA) -Pre SBC" in the report. Historical and Projected Free Cash Flow to Equity ("FCFE") is reported as "Pre-SBC Free Cash Flow" in the report. Historical figures and projections for 2008 through 2017 Cost of Revenue were obtained from the report. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, pp. 9-10.

[2] Projected Total Revenue figures for 2012 through 2017 are calculated under the assumption that revenue growth after 2011 falls to zero and so Total Revenue stays constant at the 2011 level while royalty rates increase.

[3] Projected EBITDA and FCFE figures for 2012 through 2017 are calculated under the assumption that the 2011 ratios of EBITDA and FCFE to Total Revenue remain constant.

[4] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Morgan Stanley report dated May 1, 2012 incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of revenue.

[5] I assume that 100 percent of revenues are subject to royalty payments to SoundExchange in the years 2013 through 2017.

[6] This analysis incorporates zero additional revenue from the U.S. Music Royalty Fee, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[7] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

Appendix A.6
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Based on Morgan Stanley May 1, 2012 Projections
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical and Projected Total Revenue	$2,436.7	$2,526.7	$2,838.9	$3,025.4	$3,422.0	$3,839.9	$4,171.5	$4,533.7	$4,898.0	$5,152.7
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
Historical and Projected Cost of Revenue	$1,334.1	$1,211.8	$1,250.3	$1,287.2	$1,411.0	$1,551.6	$1,546.2	$1,681.1	$1,803.5	$1,897.3
Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	$153.6	$250.3	$362.7	$489.8	$618.3
Historical and Projected EBITDA	-$136.3	$462.5	$626.3	$731.0	$934.1	$1,180.3	$1,462.2	$1,657.1	$1,872.5	$1,969.9
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$153.6	-$250.3	-$362.7	-$489.8	-$618.3
EBITDA Incorporating Updated 2013-2017 Royalty Rate	**-$136.3**	**$462.5**	**$626.3**	**$731.0**	**$934.1**	**$1,026.7**	**$1,211.9**	**$1,294.4**	**$1,382.7**	**$1,351.5**
Historical and Projected Free Cash Flow to Equity ("FCFE")	Not Included	$185.9	$192.9	$416.3	$748.4	$963.1	$1,311.1	$1,459.5	$1,518.9	$1,597.9
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$153.6	-$250.3	-$362.7	-$489.8	-$618.3
FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**$185.9**	**$192.9**	**$416.3**	**$748.4**	**$809.5**	**$1,060.8**	**$1,096.8**	**$1,029.1**	**$979.6**

Notes:

[1] Historical figures and projections for 2008 through 2016 were obtained from the May 1, 2012 Morgan Stanley report. Historical and Projected EBITDA is reported as "Operating Cash Flow (EBITDA) -Pre SBC" in the report. Historical and Projected Free Cash Flow to Equity ("FCFE") is reported as "Pre-SBC Free Cash Flow" in the report. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, pp. 9-10.

[2] Projections for 2017 are calculated under the following assumptions: i) Total Revenue and FCFE 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) Cost of Revenue and EBITDA as percentages of Total Revenue remain unchanged from the 2016 levels projected by Morgan Stanley. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[3] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Morgan Stanley report dated May 1, 2012 incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of revenue.

[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, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[6] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

Appendix A.7 [RESTRICTED]
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Based on Sirius XM "Baseline" Scenario Presented to Ratings Agencies
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical and Projected Total Revenue	[redacted]									
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
Historical and Projected Cost of Revenue	[redacted]									
Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]				
Historical and Projected EBITDA	[redacted]									
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]				
EBITDA Incorporating Updated 2013-2017 Royalty Rate	[redacted]									
Historical and Projected Free Cash Flow to Equity ("FCFE")	[redacted]									
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	[redacted]				
FCFE Incorporating Updated 2013-2017 Royalty Rate	[redacted]									

Notes:

[1] Historical figures and projections for 2008 through 2015 were obtained from the October 2010 Sirius XM "Ratings Agency Update" presentation. Historical and Projected Cost of Revenue is reported as "Variable Operating Expenses" in the presentation. Historical and Projected EBITDA is reported as "Adjusted EBITDA Income/(Loss)" in the presentation. Historical and Projected Free Cash Flow to Equity ("FCFE") is reported as "Free Cash Flow" in the presentation. See SXM_CRB_DIR_00021267-304 at 298.

[2] Projections for 2016 and 2017 are calculated under the following assumptions: i) Total Revenue and FCFE 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 each year; and ii) Cost of Revenue and EBITDA as percentages of revenue remain unchanged from the 2015 levels projected by Sirius XM. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[3] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Sirius XM "Baseline" scenario presentation projections incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of

[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, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[6] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

Appendix A.8
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Based on Morgan Stanley "Bear Case" Scenario
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical and Projected Total Revenue	$2,436.7	$2,526.7	$2,838.9	$3,025.4	$3,422.0	$3,839.9	$4,171.5	$4,438.5	$4,700.3	$4,944.8
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
Historical and Projected Cost of Revenue	$1,334.1	$1,211.8	$1,250.3	$1,287.2	$1,411.0	$1,551.6	$1,546.2	$1,645.2	$1,742.2	$1,832.8
Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	$153.6	$250.3	$355.1	$470.0	$593.4
Historical and Projected EBITDA	-$136.3	$462.5	$626.3	$731.0	$840.7	$966.7	$1,111.8	$1,182.9	$1,252.7	$1,317.8
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$153.6	-$250.3	-$355.1	-$470.0	-$593.4
EBITDA Incorporating Updated 2013-2017 Royalty Rate	**-$136.3**	**$462.5**	**$626.3**	**$731.0**	**$840.7**	**$813.2**	**$861.5**	**$827.8**	**$782.7**	**$724.5**
Historical and Projected Free Cash Flow to Equity ("FCFE")	Not Included	$185.9	$192.9	$416.3	$586.1	$755.9	$925.7	$1,095.5	$1,160.2	$1,220.5
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$153.6	-$250.3	-$355.1	-$470.0	-$593.4
FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**$185.9**	**$192.9**	**$416.3**	**$586.1**	**$602.3**	**$675.4**	**$740.5**	**$690.1**	**$627.1**

Notes:

[1] Historical and Projected Total Revenue figures for 2008 through 2014 were obtained from the May 1, 2012 Morgan Stanley report. Historical EBITDA and Free Cash Flow to Equity ("FCFE") figures for 2008 through 2011 were obtained from the report. Historical EBITDA is reported as "Operating Cash Flow (EBITDA) -Pre SBC" in the report. Historical FCFE is reported as "Pre-SBC Free Cash Flow" in the report. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, p. 9-10.

[2] Projected Total Revenue and Cost of Revenue figures for 2015 through 2017 are calculated under the following assumptions: i) Total Revenue grows 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 each year; and ii) Cost of Revenue as a percentage of Total Revenue remains unchanged from the 2014 levels projected by Morgan Stanley. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[3] Projected EBITDA figures for 2012 through 2014 are calculated with a 15 percent growth rate as stated in the Morgan Stanley report's "Bear Case" scenario. This scenario describes the financial impact of intensified competition, in which in-car listener base erodes and U.S. auto sales are lighter. EBITDA forecasts for 2015 through 2017 are calculated as percentages of Total Revenue that remain unchanged from the 2014 levels projected by Morgan Stanley. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, pp. 2, 10.

[4] Projected FCFE figures for 2012 through 2014 are calculated assuming linear growth between historical 2011 figure and projected 2015 figure. Projected FCFE figure for 2015 is calculated using the Morgan Stanley report's "Bear Case" scenario of $0.19 FCF per share. The 2015 FCFE reported above includes the 2015 estimated "Stock Based Comp" from the report. Projected FCFE figures for 2016 and 2017 are calculated under the assumption that they 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 each year. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, pp. 2 and 9. See also Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[5] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Morgan Stanley projections incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of revenue.

[6] I assume that 100 percent of revenues are subject to royalty payments to SoundExchange in the years 2013 through 2017.

[7] This analysis incorporates zero additional revenue from the U.S. Music Royalty Fee, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[8] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

Appendix A.9
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Based on Nominal GDP Growth Rates
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Historical and Projected Total Revenue	$2,436.7	$2,526.7	$2,838.9	$3,025.4	$3,134.3	$3,209.5	$3,370.0	$3,585.7	$3,797.3	$3,994.7
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
Historical and Projected Cost of Revenue	$1,334.1	$1,211.8	$1,250.3	$1,287.2	$1,333.5	$1,365.5	$1,433.8	$1,525.6	$1,615.6	$1,699.6
Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	$128.4	$202.2	$286.9	$379.7	$479.4
Historical and Projected EBITDA	-$136.3	$462.5	$626.3	$731.0	$757.3	$775.5	$814.3	$866.4	$917.5	$965.2
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$128.4	-$202.2	-$286.9	-$379.7	-$479.4
EBITDA Incorporating Updated 2013-2017 Royalty Rate	**-$136.3**	**$462.5**	**$626.3**	**$731.0**	**$757.3**	**$647.1**	**$612.1**	**$579.5**	**$537.8**	**$485.8**
Historical and Projected Free Cash Flow to Equity ("FCFE")	Not Included	$185.9	$192.9	$416.3	$431.3	$441.6	$463.7	$493.4	$522.5	$549.7
Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$128.4	-$202.2	-$286.9	-$379.7	-$479.4
FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**$185.9**	**$192.9**	**$416.3**	**$431.3**	**$313.3**	**$261.5**	**$206.5**	**$142.8**	**$70.3**

Notes:

[1] Historical figures and projections for 2008 through 2011 were obtained from the May 1, 2012 Morgan Stanley report. Historical and Projected EBITDA is reported as "Operating Cash Flow (EBITDA) -Pre SBC" in the report. Historical and Projected Free Cash Flow to Equity ("FCFE") is reported as "Pre-SBC Free Cash Flow" in the report. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, pp. 9-10.

[2] Projections for 2012 through 2017 are calculated under the following assumptions: i) Total Revenue and FCFE 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 each year; and ii) Cost of Revenue and EBITDA as percentages of Total Revenue remain unchanged from the 2011 levels projected by Morgan Stanley. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[3] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Morgan Stanley report dated May 1, 2012 incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of revenue.

[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, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[6] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

Appendix A.10
Sirius XM
Historical Performance and Projected Performance Under Proposed Royalty Rates
Morgan Stanley Report Comparison: November 2011 and May 2012 Projections
(Figures in $ millions)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
November 3, 2011 Report: Historical and Projected 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
May 1, 2012 Report: Historical and Projected Total Revenue	$2,436.7	$2,526.7	$2,838.9	$3,025.4	$3,422.0	$3,839.9	$4,171.5	$4,533.7	$4,898.0	$5,152.7
November 3, 2011 Report: 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
May 1, 2012 Report: 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
November 3, 2011 Report: Historical and Projected 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
May 1, 2012 Report: Historical and Projected Cost of Revenue	$1,334.1	$1,211.8	$1,250.3	$1,287.2	$1,411.0	$1,551.6	$1,546.2	$1,681.1	$1,803.5	$1,897.3
November 3, 2011 Report: 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
May 1, 2012 Report: Additional Cost of Revenue from 2013 Rate Change	$0.0	$0.0	$0.0	$0.0	$0.0	$153.6	$250.3	$362.7	$489.8	$618.3
November 3, 2011 Report: Historical and Projected 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
May 1, 2012 Report: Historical and Projected EBITDA	-$136.3	$462.5	$626.3	$731.0	$934.1	$1,180.3	$1,462.2	$1,657.1	$1,872.5	$1,969.9
November 3, 2011 Report: 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
May 1, 2012 Report: Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$153.6	-$250.3	-$362.7	-$489.8	-$618.3
November 3, 2011 Report: EBITDA Incorporating Updated 2013-2017 Royalty Rate	**-$136.3**	**$462.5**	**$626.3**	**$734.7**	**$917.4**	**$958.9**	**$1,172.5**	**$1,293.7**	**$1,409.6**	**$1,377.2**
May 1, 2012 Report: EBITDA Incorporating Updated 2013-2017 Royalty Rate	**-$136.3**	**$462.5**	**$626.3**	**$731.0**	**$934.1**	**$1,026.7**	**$1,211.9**	**$1,294.4**	**$1,382.7**	**$1,351.5**
November 3, 2011 Report: Historical and Projected 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
May 1, 2012 Report: Historical and Projected Free Cash Flow to Equity ("FCFE")	Not Included	$185.9	$192.9	$416.3	$748.4	$963.1	$1,311.1	$1,459.5	$1,518.9	$1,597.9
November 3, 2011 Report: 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
May 1, 2012 Report: Net Adjustments from Change in Royalty Rate	$0.0	$0.0	$0.0	$0.0	$0.0	-$153.6	-$250.3	-$362.7	-$489.8	-$618.3
November 3, 2011 Report: FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**$185.9**	**$192.9**	**$359.1**	**$741.6**	**$725.0**	**$881.0**	**$926.7**	**$914.1**	**$857.9**
May 1, 2012 Report: FCFE Incorporating Updated 2013-2017 Royalty Rate	**Not Included**	**$185.9**	**$192.9**	**$416.3**	**$748.4**	**$809.5**	**$1,060.8**	**$1,096.8**	**$1,029.1**	**$979.6**

Notes:

[1] Historical figures and projections for 2008 through 2016 were obtained from the November 3, 2011 Morgan Stanley Report and the May 1, 2012 Morgan Stanley Report. Historical and Projected EBITDA is reported as "Operating Cash Flow (EBITDA) -Pre SBC" in the reports. Historical and Projected Free Cash Flow to Equity ("FCFE") is reported as "Pre-SBC Free Cash Flow" in the reports. See Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Reiterating OW Following 3Q Results, Outlook Unchanged," November 3, 2011, pp. 9-10. See also Swinburne, Benjamin and Ryan Fiftal, Morgan Stanley, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, pp. 9-10.

[2] Projections for 2017 are calculated under the following assumptions: i) Total Revenue and FCFE 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) Cost of Revenue and EBITDA as percentages of Total Revenue remain unchanged from the 2016 levels projected by Morgan Stanley. See Congress of the United States, Congressional Budget Office, "The Budget and Economic Outlook: Fiscal Years 2012 to 2022," January 2012, p. 128.

[3] The proposed royalty rates are 12 percent in 2013, 14 percent in 2014, 16 percent in 2015, 18 percent in 2016, and 20 percent in 2017. I assume that the Morgan Stanley reports incorporated an 8 percent (the 2012 rate) royalty rate in projections for the years 2013 through 2016. Additional Cost of Revenue from 2013 Rate Change is calculated as the yearly royalty payment in excess of the assumed incorporated 8 percent of revenue.

[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, thus I assume that Sirius XM completely absorbs the increase in royalty rates (that is, zero percent of the royalty increase is passed through to customers). Additional revenue would increase EBITDA and FCFE.

[6] Net adjustments to EBITDA and FCFE from the change in royalty rate are assumed to generate no tax savings to Sirius XM.

APPENDIX B
Mr. Stowell's R^2 and Regression Analyses is Fundamentally Flawed

1. Mr. Stowell's regression and correlation analysis of the Seasonally Adjusted Annual Rate ("SAAR") and Sirius XM's stock price[1] is fundamentally flawed and, hence, invalid from an econometrics perspective. There are several important problems with Mr. Stowell's analysis.

2. In his Affirmative Testimony, Mr. Stowell regresses Sirius XM's stock price on the SAAR and interprets the 69 percent R^2 he obtains as evidence of Sirius XM's dependence on SAAR.[2] However, because the time series he uses are non-stationary (e.g., stock prices follow a sub-martingale process, commonly referred to as a random walk with a drift), the R^2 in his regression is artificially inflated, and his regression is not predictive.[3] As a result, "even with a large value of R^2, the estimated regression equation should not be used until further analysis of the appropriateness of the assumed model has been conducted."[4] I conducted these tests, which Mr. Stowell's model failed, and therefore his model is not valid.

3. One of the problems of regressing non-stationary variables is the incidence of non-independent residuals. Indeed, the residuals of Mr. Stowell's model are not independent; rather they are highly autocorrelated (as shown by their low Durbin-Watson value of 1.05).[5] Additionally, the residuals are not normally distributed,[6] which violates another of the assumptions underlying his model.

4. As is well documented in the econometric literature, "if a regression equation relating economic variables is found to have strongly autocorrelated residuals, equivalent to a low Durbin-Watson value, *the only conclusion that can be reached is that the equation is mis-*

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1 Stowell Testimony, p. 8.

2 Stowell Testimony, p. 8.

3 One of the best examples of this phenomenon are the seeming ability of sunspots to explain inflation. See for example, Nelson, Charles R. and Heejoon Kang, "Spurious Periodicity in Inappropriately Detrended Time Series," Econometrica, 1981.

4 Anderson, David R., Dennis J. Sweeney and Thomas A. Williams, *Statistics for Business and Economics*, 2009, p. 566.

5 The Durbin-Watson test rejects the hypothesis of no serial correlation at the 99 percent confidence level.

6 The Jarque-Bera test rejects the hypothesis of residual normality at the 99 percent confidence level.

specified, whatever the value of R^2 observed."[7] [emphasis original]

5. Broadly speaking, Mr. Stowell estimated the regression relation and calculated the coefficient of determination between the raw stock prices of Sirius XM and the corresponding raw SAAR,[8] which is a flawed approach due to the statistical problems that often result from non-stationary time series data. An introductory textbook in financial econometrics explains:

> [I]f two variables are trending over time, a regression of one on the other could have a high R^2 even if the two are totally unrelated. So, if standard regression techniques are applied to non-stationary data, the end result could be a regression that 'looks' good under standard measures (significant coefficient estimates and a high R^2), but which is really valueless. Such a model would be termed a 'spurious regression.'"[9]

6. Indeed, my replication of Mr. Stowell's regressions shows that the autocorrelation of residuals becomes worse when Mr. Stowell deletes the "Cash for Clunkers" months from his data, causing their Durbin-Watson value to fall even lower to 0.81.[10] This makes his model even more unsuitable, despite an increase in R^2.

7. The second problem with Mr. Stowell's regression is referred to as the "omitted correlated variables problem" which induces spurious correlation.[11] The basic idea is that a common variable that affects the dependent variable (with the dependent variable in Mr. Stowell's case being the stock price) is omitted from the regression and the variable that is included proxies for the omitted variable that is truly explanatory. Hence, the observed correlation is simply due to the omitted variable and is not diagnostic. In Mr. Stowell's case, the omitted variable is likely to be "general market conditions."

8. To demonstrate this point, I first replicate the analysis performed by Mr. Stowell. Those results are graphed in Appendix B.1. Next, I repeat the analysis but now replace Sirius XM's stock price with the stock price of a health care stock – Coventry Health Care Inc. – with the only selection criterion being a visual inspection that the stock was affected by the recession

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7 The authors also state that "virtually every textbook on econometric methodology contains explicit warnings of the dangers of autocorrelated errors." Granger, C.W.J. and P. Newbold, "Spurious Regressions in Econometrics," Journal of Econometrics, 1974, pp. 111, 117.

8 Stowell Testimony, p. 8, and SXM_CRB_DIR_EXP_00000032.

9 Chris Brooks, *Introductory Econometrics for Finance*, 2008, p. 319.

10 As a minor point, Mr. Stowell claims that the correlation of Sirius XM's share price and the SAAR equals 77 percent after omitting the "Cash for Clunkers" months, but he is mistaken. The correlation is the square root of 77 percent. Additionally, it appears Mr. Stowell calculated this value after only deleting August from his data, rather than August and July as he states in his report. In addition to being mathematically incorrect, this calculation is also irrelevant for the reasons explained above.

11 Greene, William, *Econometric Analysis*, 2003, pp. 148-149.

of 2008 and 2009. I then confirmed that Coventry Health Care Inc. was not an ambulance service that could have reflected new auto sales through its use of ambulances.

9. The second analysis is plotted in Appendix B.2. This chart shows that Coventry Health Care Inc., although a company that operates health plans and is primarily subject to the risks of the health care industry (and does not possess "exposure to the auto industry" that "gives rise to a risk that cannot be hedged"), appears to be explained by SAAR. Indeed, using Mr. Stowell's flawed approach results in a regression R^2 of 74 percent, which is even higher than the 69 percent value Mr. Stowell observed for Sirius XM. See Appendix B.1 and Appendix B.2 for recreations of Mr. Stowell's Exhibit 1, created using Sirius XM's share price and Coventry Health Care Inc.'s stock price, respectively. Clearly, conclusions based on Mr. Stowell's analysis of the correlation between Sirius XM's stock prices and the SAAR are misguided.

10. A simple glance at the underlying data casts doubt on Mr. Stowell's conclusion that SAAR and Sirius XM's earning power are inextricably connected. The average monthly SAAR fell by almost 860 million from the first to the second quarters of 2011, and yet Sirius XM's free cash flow increased by $182.3 million over that period – a free cash flow increase greater than the increase observed in the quarter of the highest increase in the SAAR.[12] Such observations, again, are evidence against the direct dependency on new auto sales described in the Sirius XM testimonies.

11. To further demonstrate the fallacy of Mr. Stowell's approach, I replicated Mr. Stowell's regression but used the percent change in SAAR and the returns (i.e., the cum-dividend percent change) of the NASDAQ Composite index (as proxy for the general market conditions that Mr. Stowell omitted) to predict the returns of Sirius XM's stock.[13] When controlling for the price movements of the NASDAQ Composite, the percent change in

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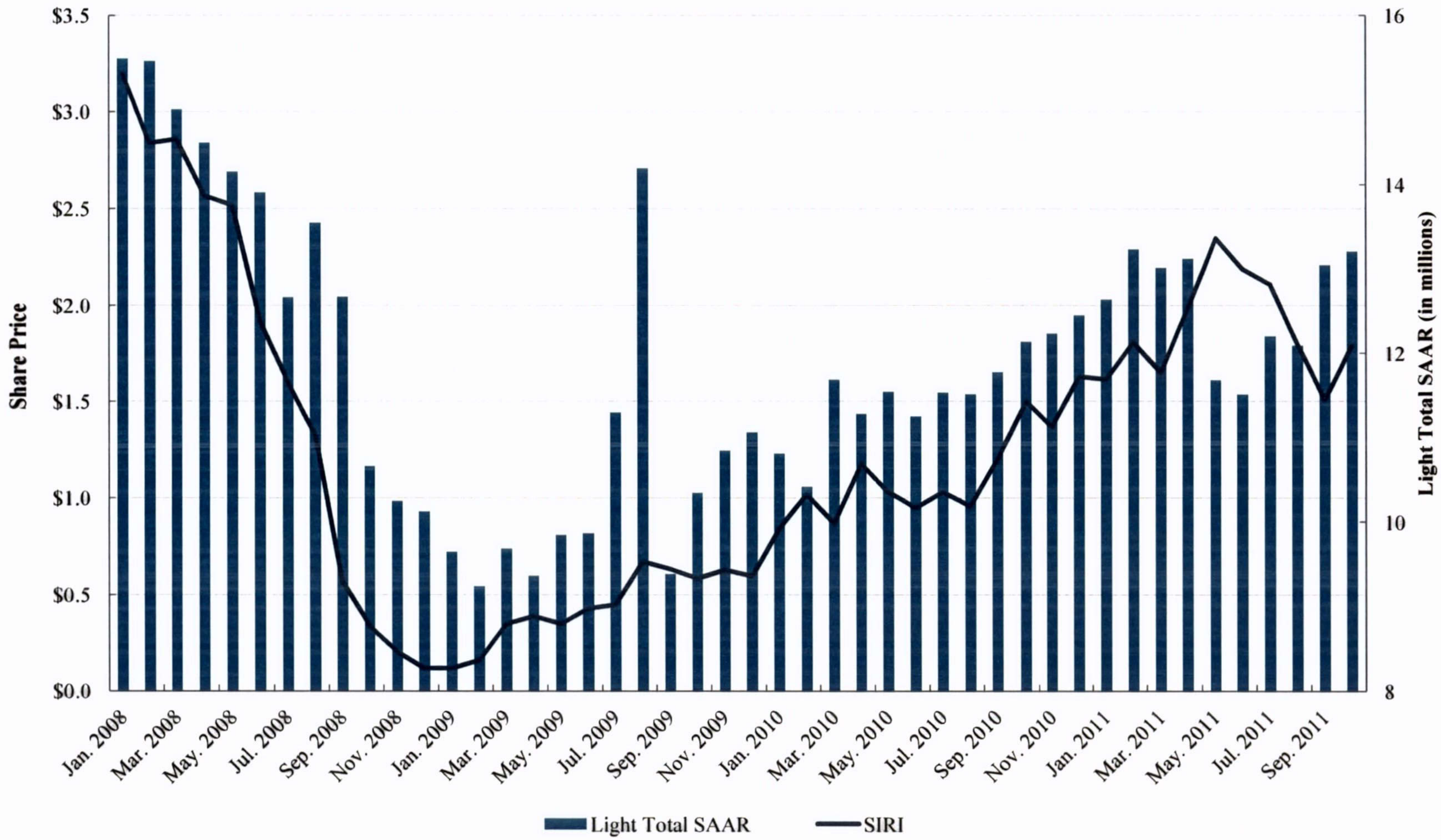
12 SXM_CRB_DIR_EXP_00000032; Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2008, p. 37; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2009, p. 37; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended June 30, 2009, p. 41; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2009, p. 38; Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2009, p. 27; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2010, p. 34; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended June 30, 2010, p. 46; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2010, p. 45; Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 36; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2011, p. 31; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended June 30, 2011, p. 32; and Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2011, p. 33.

13 To avoid the incorrect inferences caused by Mr. Stowell's use of the raw levels of Sirius XM stock and SAAR, I convert the data into a time series of simple returns, as is common practice. Brooks, Chris, *Introductory Econometrics for Finance*, 2008, p. 7.

SAAR is shown to have no predictive power with respect to the changes in Sirius XM's stock price.[14] Essentially, what this demonstrates is that Mr. Stowell's results are merely the consequence of two basic mistakes: the use of non-stationary variables and the omission of general trends in levels data. Thus, the conclusions Mr. Stowell draws are simply wrong.

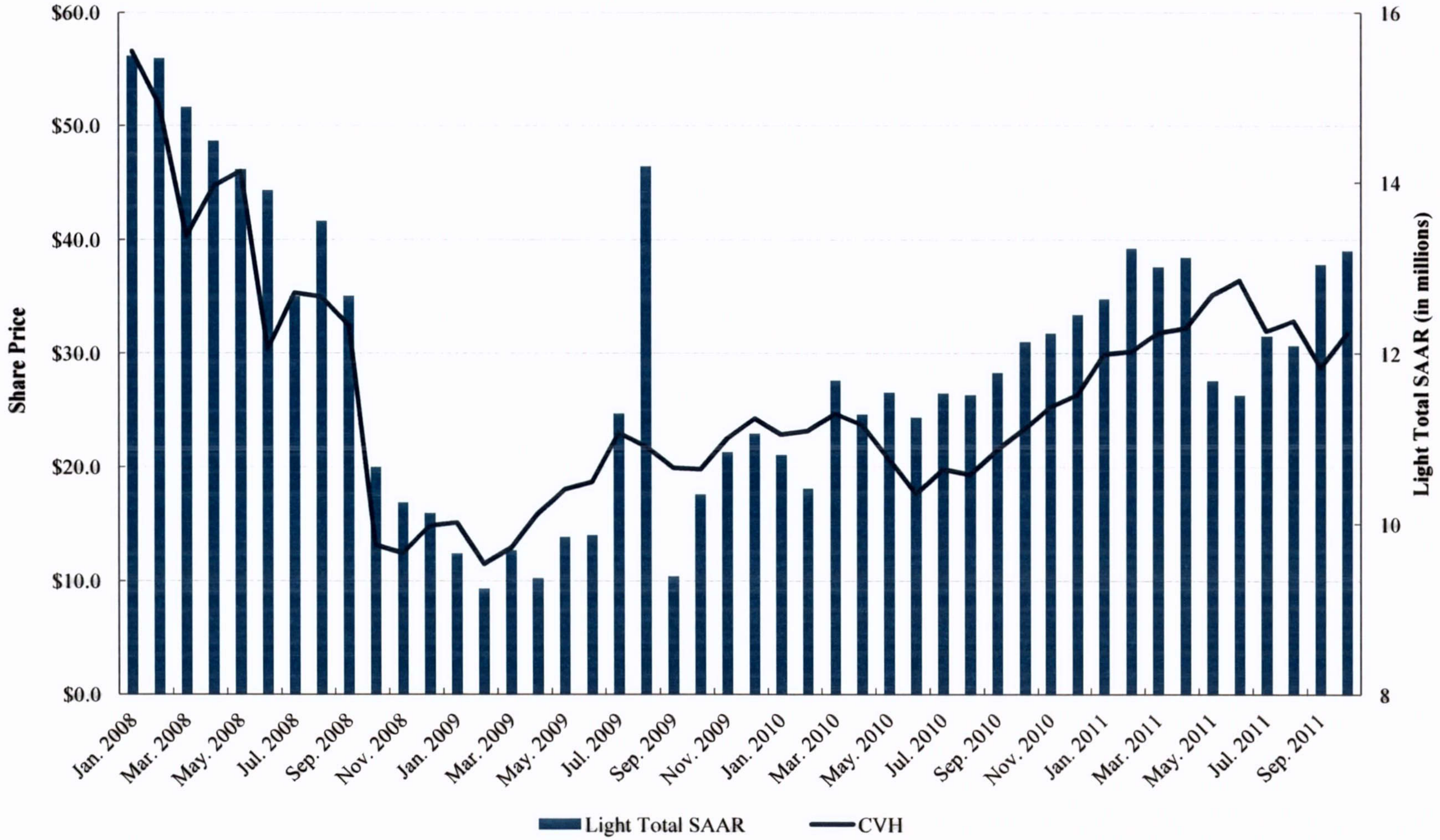
14 While Sirius XM is a (tiny) component of NASDAQ, I obtain the same result when I use the S&P 500 Index instead.

Appendix B.1
Sirius XM
Share Price vs. Light Total SAAR
January 2008 - October 2011



Notes:
[1] Share price is the closing price on the last day of the month as reported by Bloomberg, L.P.
[2] Light Total SAAR (total light vehicle sales seasonally adjusted at annual rates) is taken from SXM_CRB_DIR_EXP_00000032. Updated datas are also available from the Bureau of Economic Analysis at http://www.bea.gov/national/xls/gap_hist.xls.

Appendix B.2
Coventry Health Care Inc.
Share Price vs. Light Total SAAR
January 2008 - October 2011



Notes:
[1] Share price is the closing price on the last day of the month as reported by Bloomberg, L.P.
[2] Light Total SAAR (total light vehicle sales seasonally adjusted at annual rates) is taken from SXM_CRB_DIR_EXP_00000032. Updated data are also available from the Bureau of Economic Analysis at http://www.bea.gov/national/xls/gap_hist.xls.

Attachment 1 [RESTRICTED]

[redacted]

Attachment 2 [RESTRICTED]

[redacted]

Attachment 3 [RESTRICTED]

[redacted]

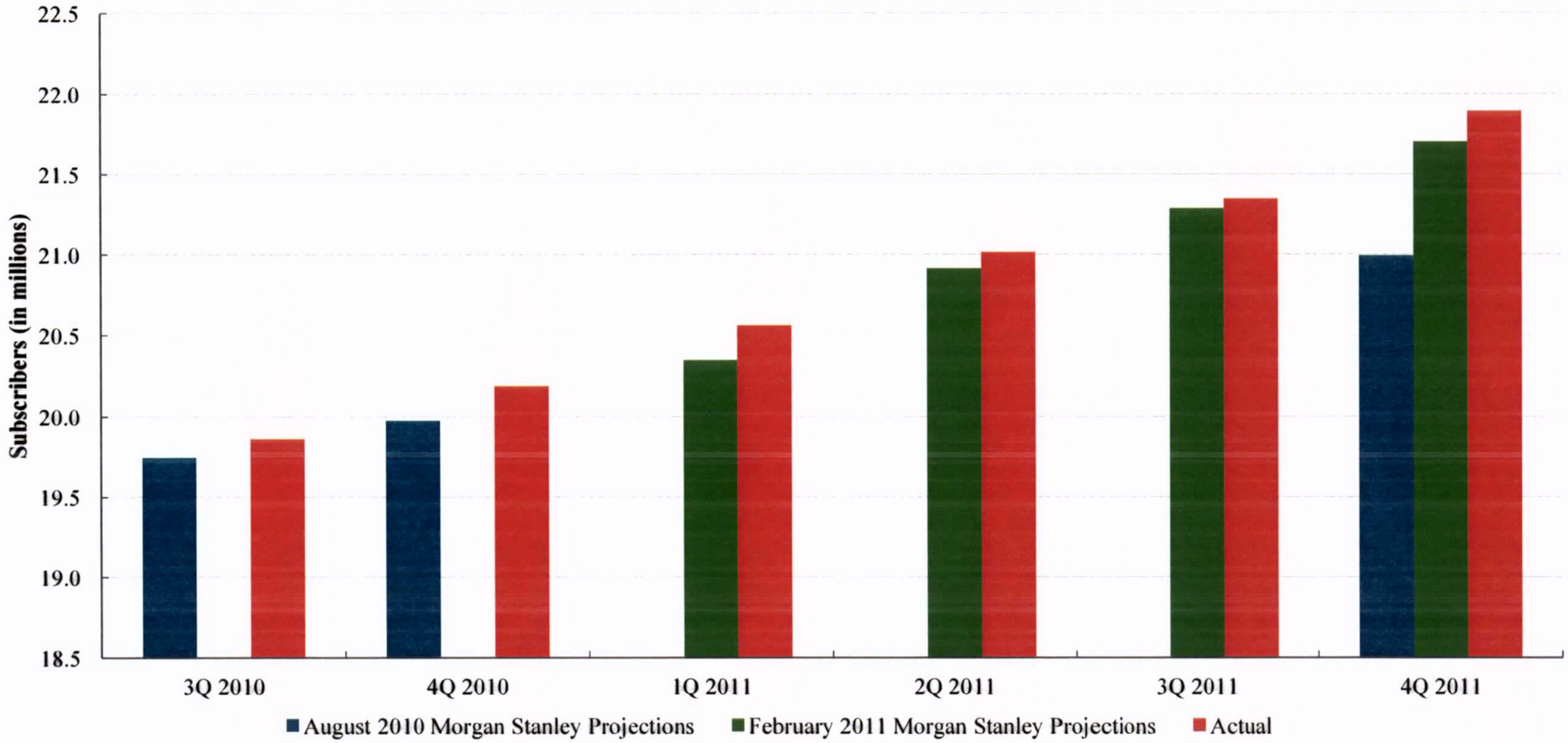
Attachment 4 [RESTRICTED]

[redacted]

Attachment 5 [RESTRICTED]

[redacted]

Attachment 6
Sirius XM
Post-Crisis Morgan Stanley Projections & Sirius XM's Actual Performance
End of Period Subscribers
3Q 2010 - 4Q 2011



Notes:

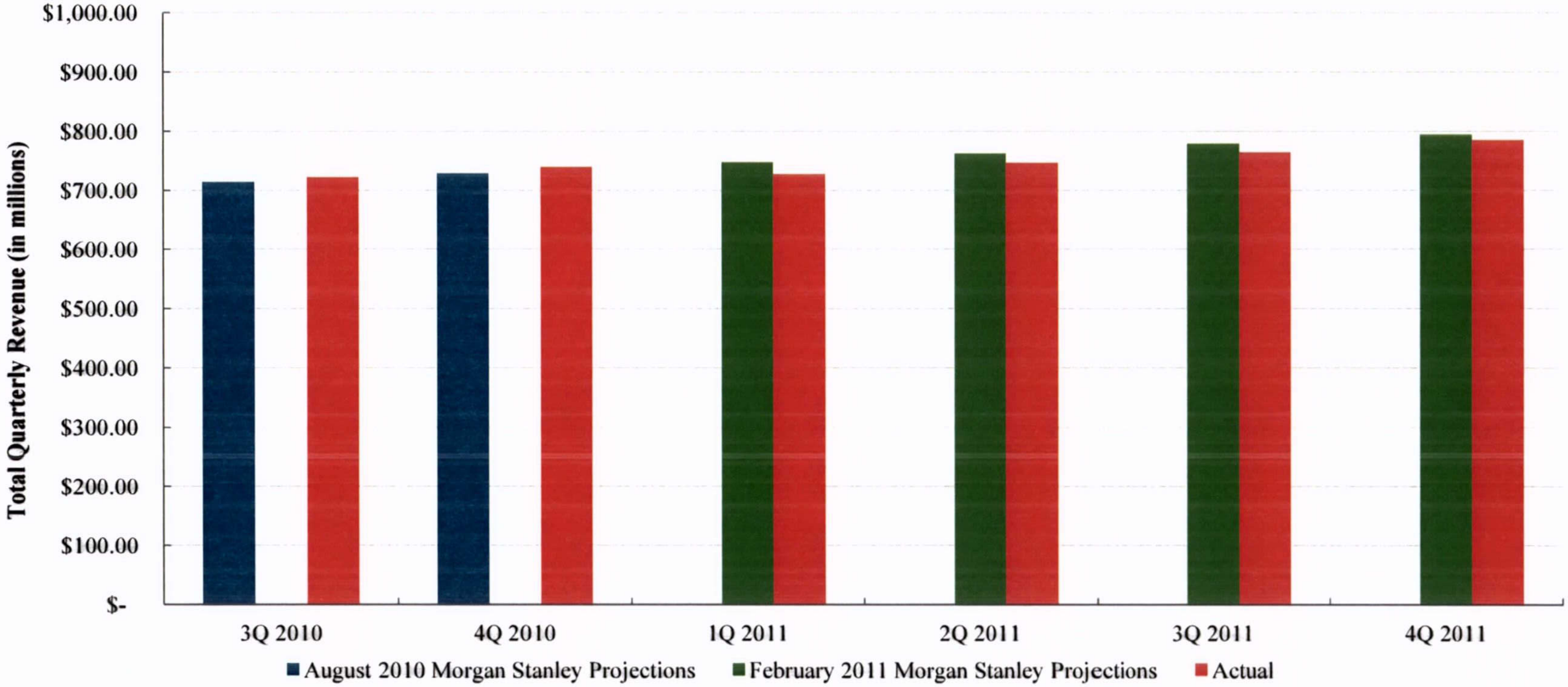
[1] August 2010 Morgan Stanley Projected End of Period Subscribers is calculated as the sum of projected OEM, Retail, and Rental Car "EOP Subscribers." See Gober, David, Benjamin Swinburne, and Cynthia Rupeka, Morgan Stanley, "Sirius XM Radio Inc.," August 29, 2010, pp. 12-13.

[2] February 2011 Morgan Stanley Projected End of Period Subscribers is "Total SIRI Subscribers" as obtained from report dated February 2, 2011. See Gober, David, Benjamin Swinburne, and Cynthia Rupeka, Morgan Stanley, "Sirius XM Radio Inc.," February 2, 2011, p. 15.

[3] Actual End of Period Subscribers are as reported by Sirius XM. See Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2011, p. 24; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended June 30, 2011, p. 23; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2011, p. 31; Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 35.

[4] Actual End of Period Subscribers for 3Q 2010 and 4Q 2010 are as reported in Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2011, p. 31 and Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 35, respectively.

Attachment 7
Sirius XM
Post-Crisis Morgan Stanley Projections & Sirius XM's Actual Performance
Total Revenue
3Q 2010 - 4Q 2011



Notes:

[1] August 2010 Morgan Stanley Projected Revenue is "pro forma" as obtained from report dated August 29, 2010. See Gober, David, Benjamin Swinburne, and Cynthia Rupeka, Morgan Stanley, "Sirius XM Radio Inc.," August 29, 2010, p. 15.

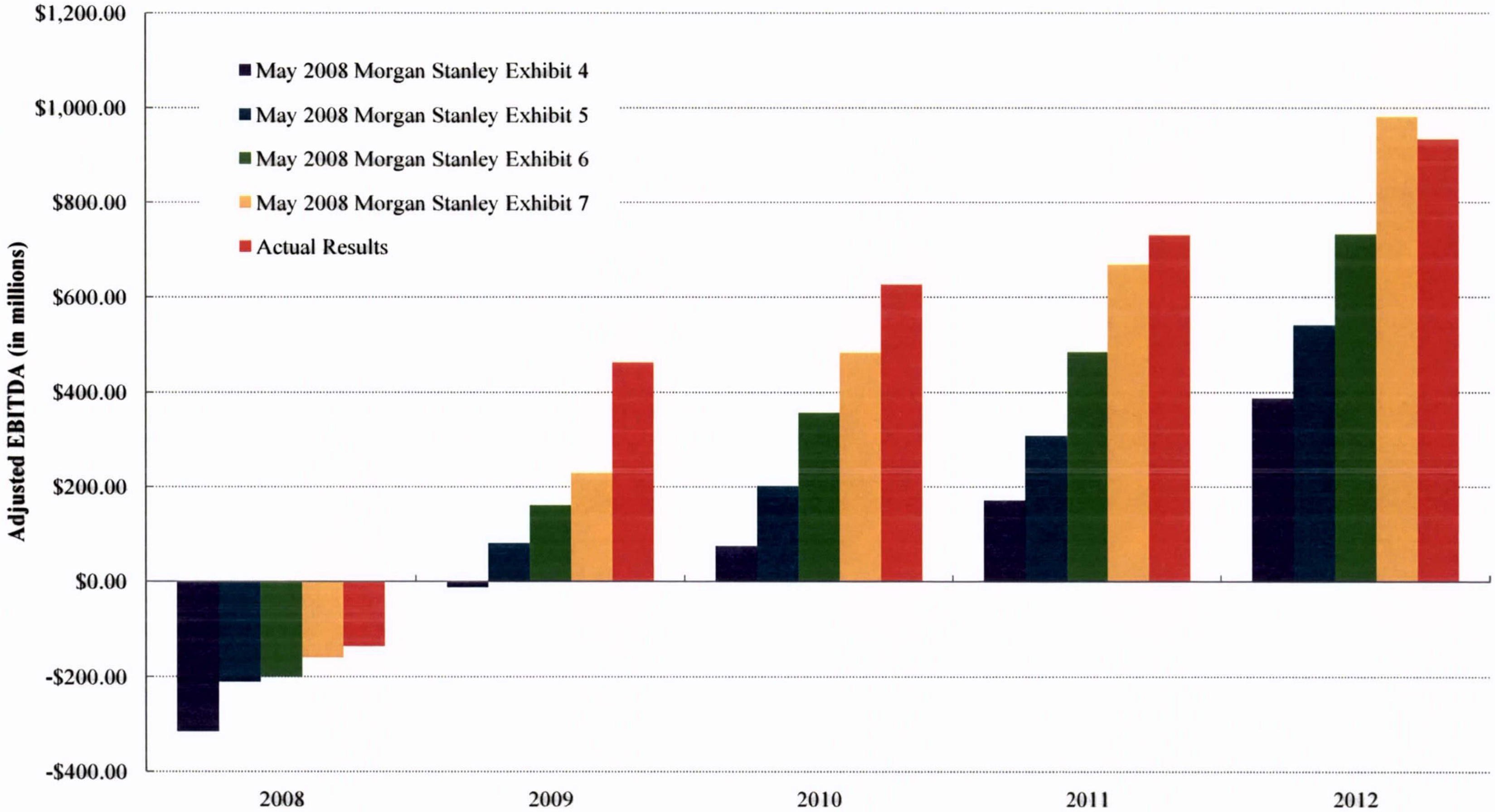
[2] February 2011 Morgan Stanley Projected Revenue is "pro forma" as obtained from report dated February 2, 2011. See Gober, David, Benjamin Swinburne, and Cynthia Rupeka, Morgan Stanley, "Sirius XM Radio Inc.," February 2, 2011, p. 20.

[3] Actual Total Revenue is "adjusted" as reported by Sirius XM. See Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2010, p. 45; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended March 31, 2011, p. 31; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended June 30, 2011, p. 32; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2011, p. 33.

[4] 4Q 2010 Total Revenue is calculated as 2010 Total Revenue less Total Revenue for the nine months ending September 30, 2010. See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2010, p. 36; Sirius XM Radio Inc., Form 10-Q for the quarterly period ended September 30, 2010, p. 45.

[5] 4Q 2011 Total Revenue is calculated as 2011 Total Revenue less the sum of 1Q 2011 through 3Q 2011 Total Revenue as reported by Sirius XM. See Sirius XM Radio Inc., Form 10-K for the fiscal year ended December 31, 2011, p. 37.

Attachment 8
Sirius XM
2008 Morgan Stanley Projections vs. Actuals
Adjusted EBITDA



Notes:

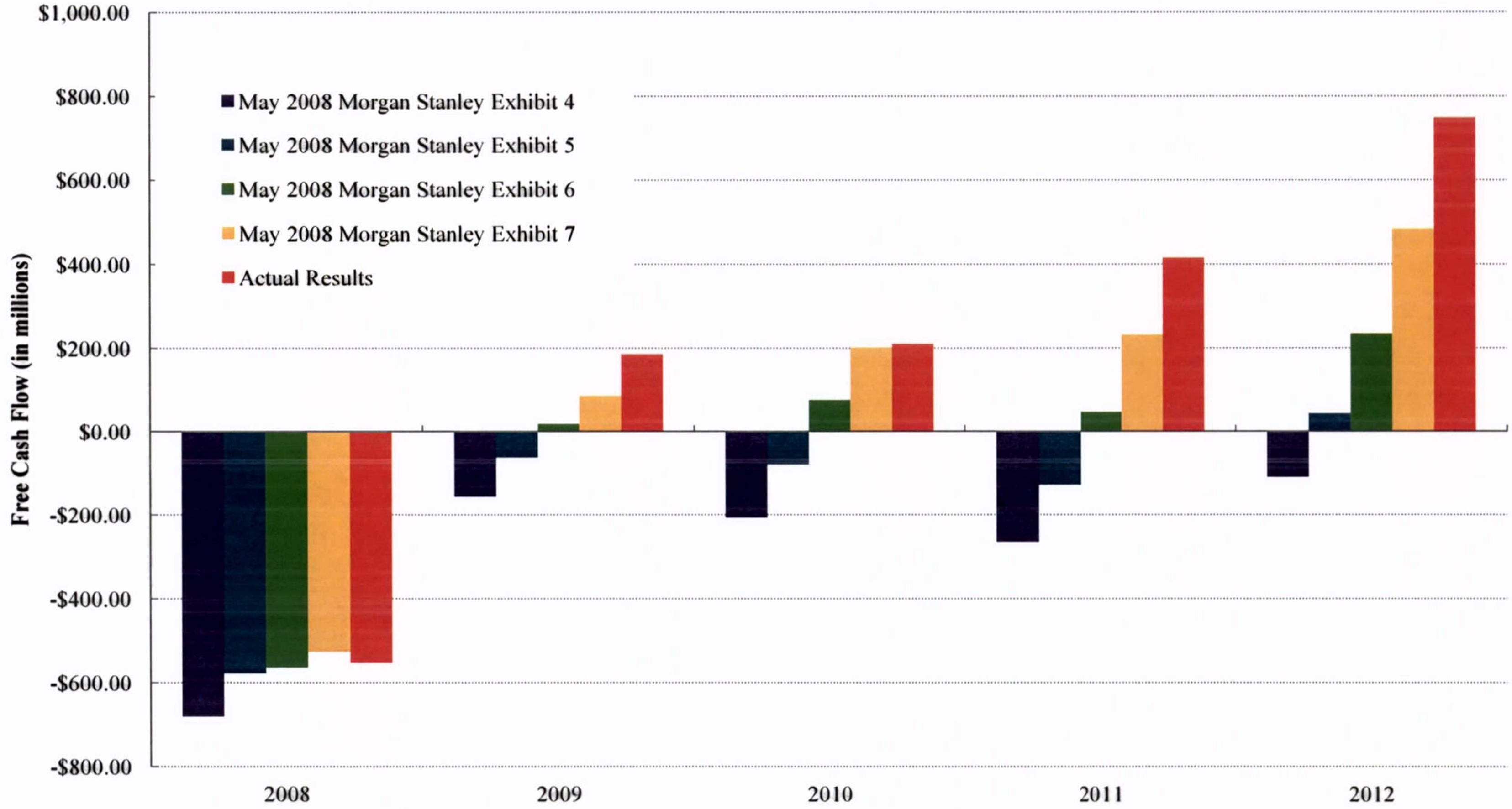
[1] Projection data obtained from May 30, 2008 Morgan Stanley report. See Swinburne, Benjamin and Chad Harris, Morgan Stanley, "Sirius Satellite Radio: Updating Model for 1Q08 Results," May 30, 2008, pp. 6-9.

[2] Actual 2008 to 2010 Adjusted EBITDA obtained from SXM_CRB_DIR_00000002.

[3] Actual 2011 Adjusted EBITDA obtained from Sirius XM Radio Inc., Form 10-K for fiscal year ended December 31, 2011, p. 37.

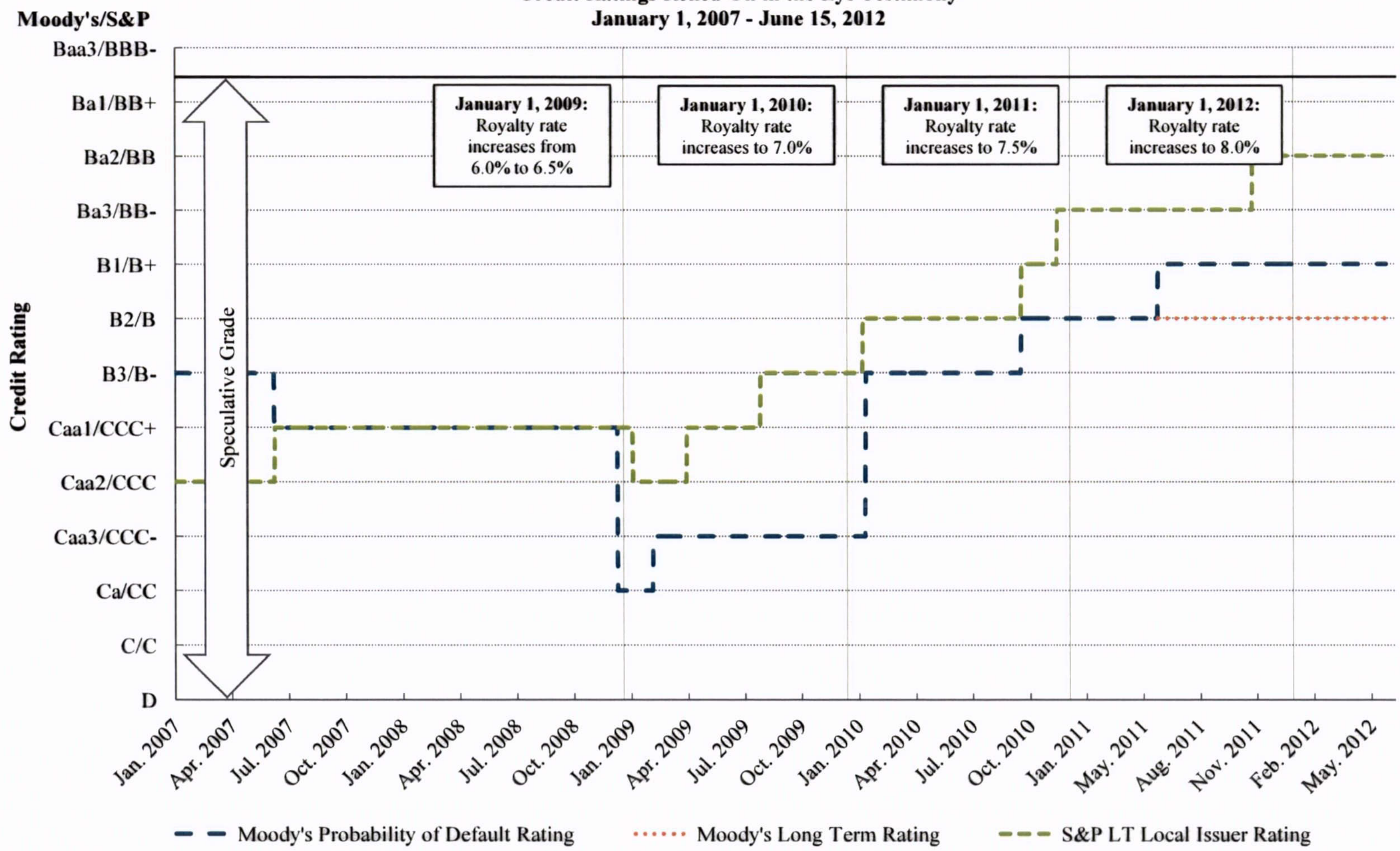
[4] To approximate 2012 actuals I adopt Mr. Stowell's methodology of using the most recent value projected by Morgan Stanley. See Swinburne, Benjamin and Ryan Fiftal, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, p. 10.

Attachment 9
Sirius XM
2008 Morgan Stanley Projections vs. Actuals
Free Cash Flow



Notes:
[1] Projection data obtained from May 30, 2008 Morgan Stanley report. See Swinburne, Benjamin and Chad Harris, Morgan Stanley, "Sirius Satellite Radio: Updating Model for 1Q08 Results," May 30, 2008, pp. 6-9.
[2] Actual 2008 to 2010 Free Cash Flow obtained from SXM_CRB_DIR_00000002.
[3] Actual 2011 Free Cash Flow obtained from Sirius XM Radio Inc., Form 10-K for fiscal year ended December 31, 2011, p. 37.
[4] To approximate 2012 actuals I adopt Mr. Stowell's methodology of using the most recent value projected by Morgan Stanley. See Swinburne, Benjamin and Ryan Fiftal, "Sirius XM Radio Inc.: Solid Start to the Year," May 1, 2012, p. 9.

Attachment 10
Sirius XM
Credit Ratings Relied On in the Lys Testimony
January 1, 2007 - June 15, 2012



Notes:

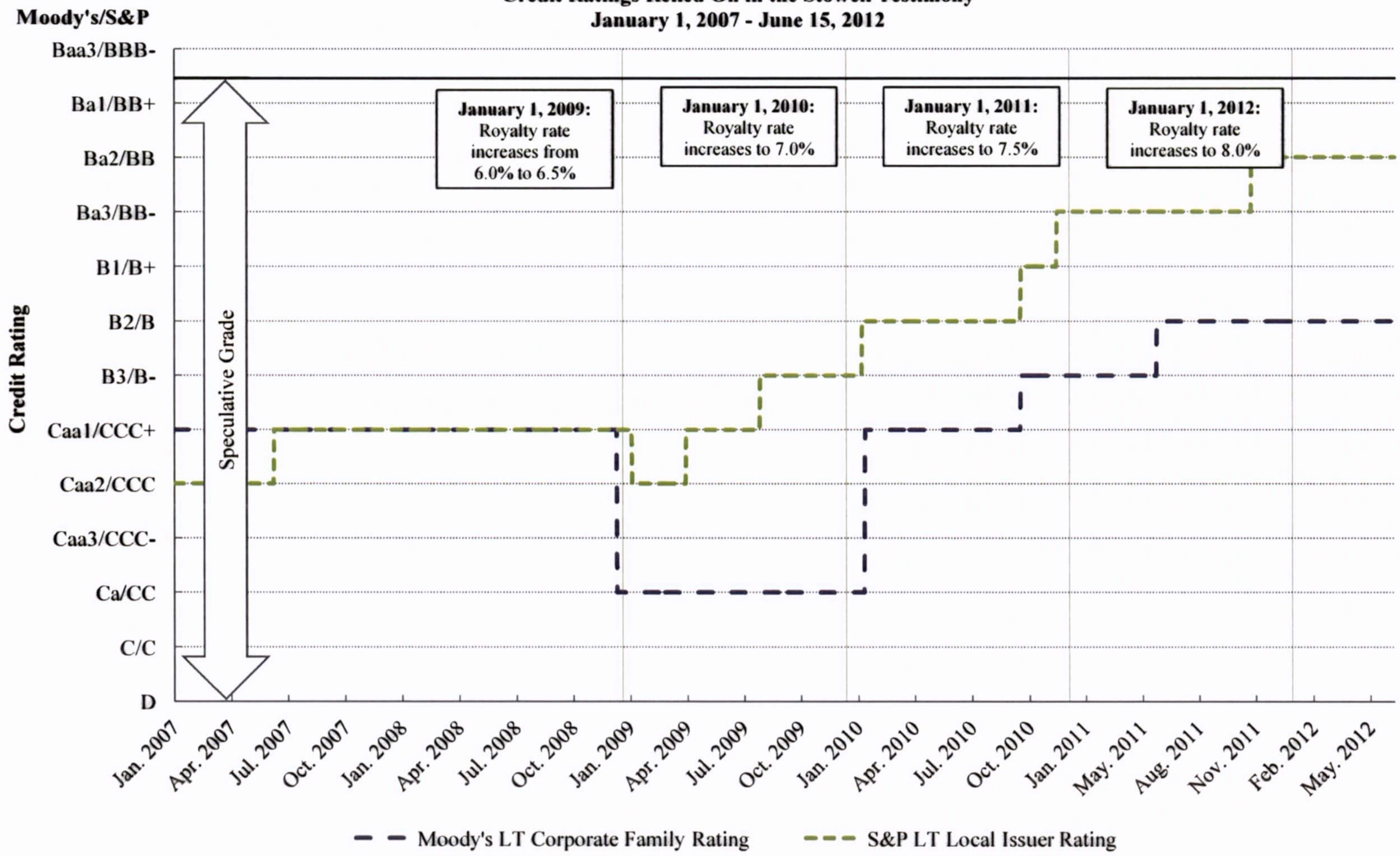
[1] Investment Grade ratings range from Aaa/AAA to Baa3/BBB-. Speculative Grade ratings range from Ba1/BB+ to D. Moody's does not have a rating below 'C'. See Moody's Investors Service, "Rating Symbols and Definitions," June 2012, and Standard & Poor's, "Standard & Poor's Ratings Definitions," April 27, 2011.

[2] Rating data from Bloomberg, L.P.

[3] Moody's Long Term Rating for Sirius XM came into existence beginning on May 24, 2011.

[4] Royalty rate data from SDARS I, p. 4102, and Karmazin Testimony, p. 18.

Attachment 11
Sirius XM
Credit Ratings Relied On in the Stowell Testimony
January 1, 2007 - June 15, 2012



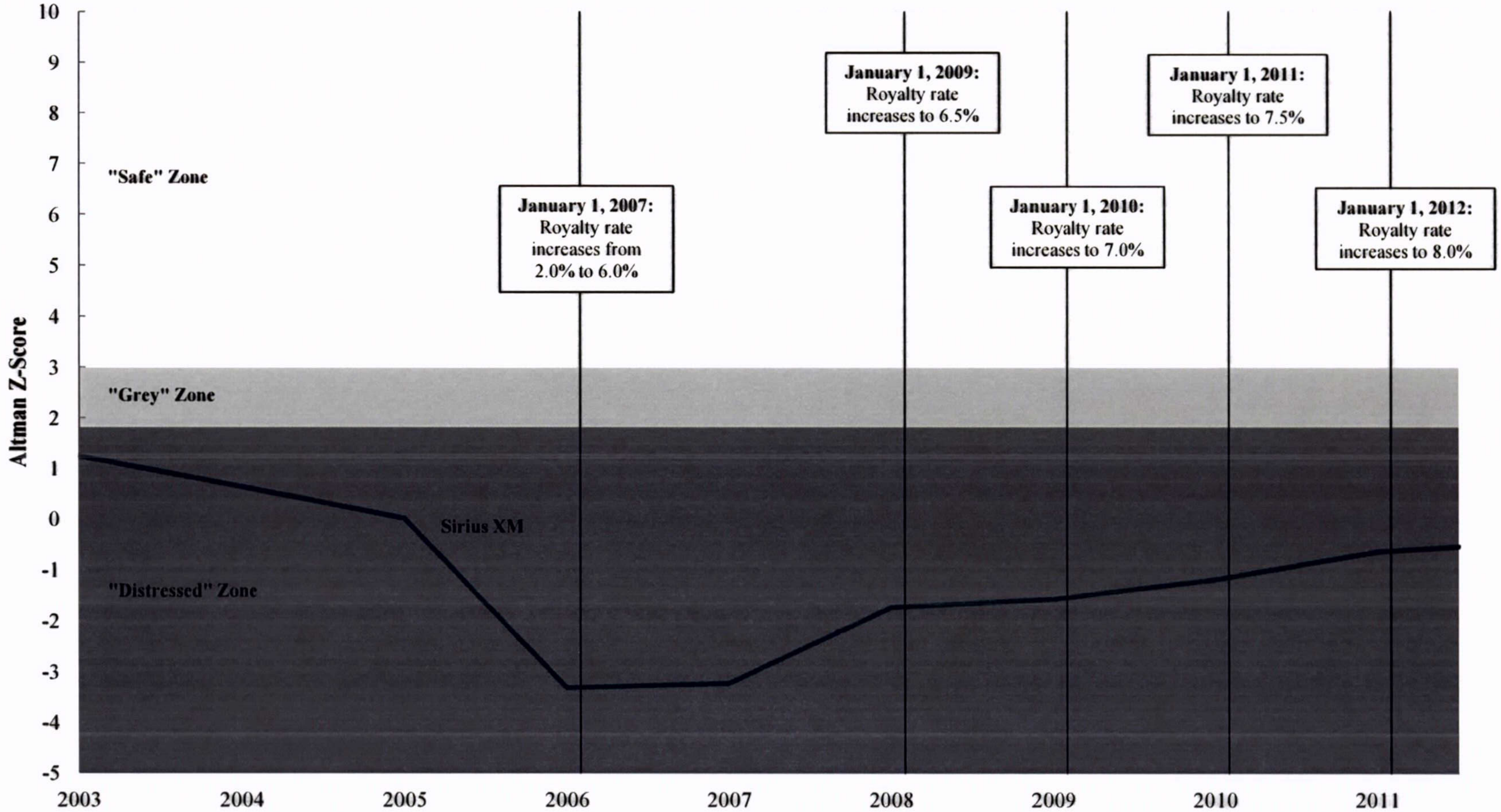
Notes:

[1] Investment Grade ratings range from Aaa/AAA to Baa3/BBB-. Speculative Grade ratings range from Ba1/BB+ to D. Moody's does not have a rating below 'C'. See Moody's Investors Service, "Rating Symbols and Definitions," June 2012, and Standard & Poor's, "Standard & Poor's Ratings Definitions," April 27, 2011.

[2] Rating data from Bloomberg, L.P.

[3] Royalty rate data from SDARS I, p. 4102, and Karmazin Testimony, p. 18.

Attachment 12
Sirius XM
Altman Z-Score
December 31, 2003 - June 15, 2012



Notes:

[1] Altman Z-Score reported as of December 31 for 2003 through 2011 and June 15 for 2012. Capital IQ.

[2] A Z-Score greater than 2.99 falls into the "non-bankrupt" sector, what Mr. Stowell refers to as "safe"; a score between 1.81 and 2.99 falls within the "zone of ignorance," also called the "grey" area; and a score of less than 1.81 deems a firm "bankrupt," what Mr. Stowell calls the "distressed" area. Altman, Edward, "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy," The Journal of Finance, 1968, p. 606.

[3] Royalty rate data from SDARS I, p. 4102, and Karmazin Testimony, p. 18.

Attachment 13 [RESTRICTED]
Sirius XM
Approximated Percentage of Royalty Increase that Sirius XM was Allowed to Recover via the U.S. Music Royalty Fee
March 2007 – July 2011

	SDARS Royalties Paid to SoundExchange	Unrecoupable SDARS Royalties under the FCC Merger Order	Calculated Amount of Recoupable SDARS Royalties
	[A]	[B]	[C] = [A] - [B]
2007 (March Forward)	[redacted]		
2008			
2009			
2010			
2011 (Through July)			
Total			

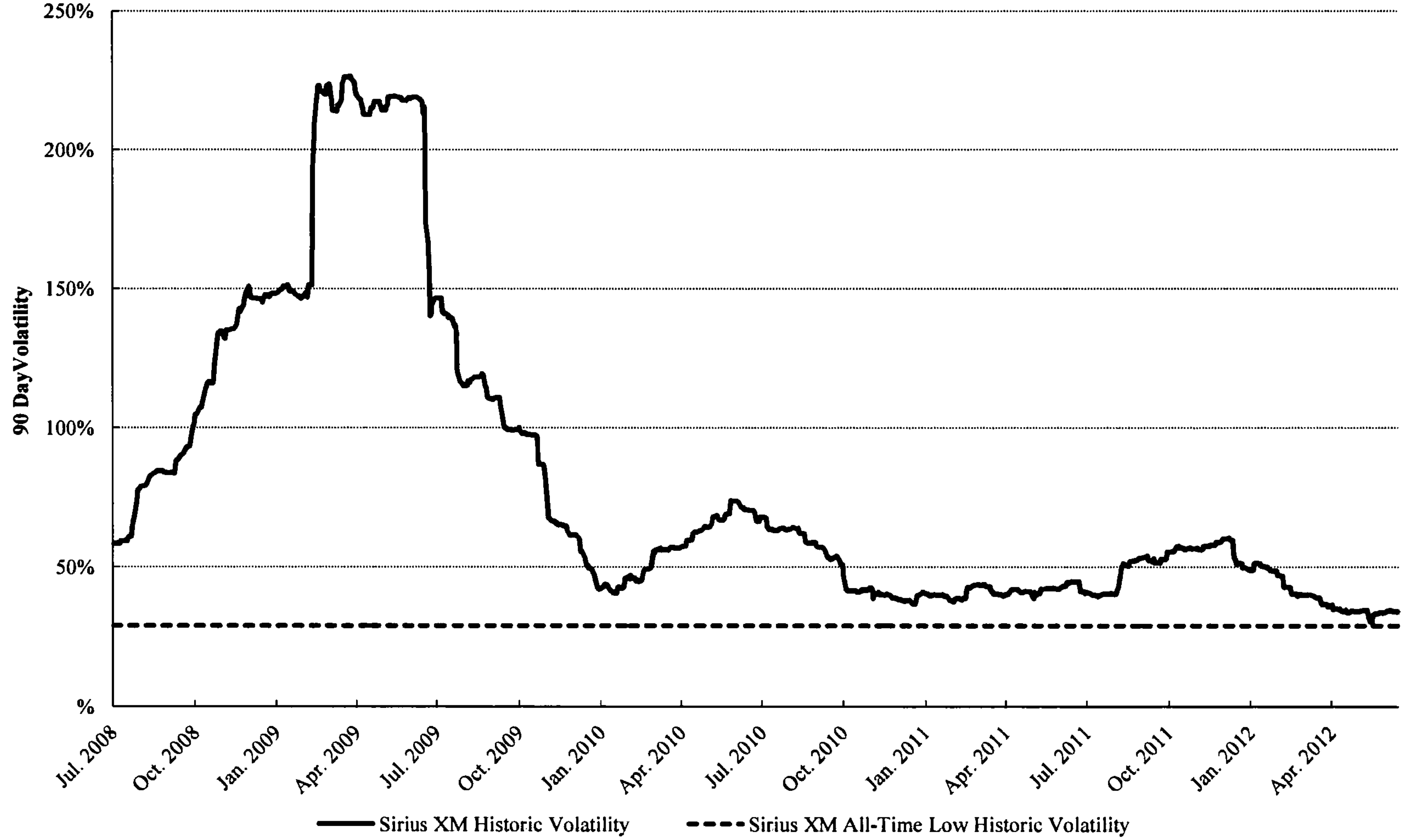
	Revenue Reported to SoundExchange	Hypothetical Royalties Paid to SoundExchange if the Statutory Rate Remained at 2 Percent	Percentage of SDARS Royalties that Sirius XM was Allowed to Recoup
	[D]	[E] = [D] x [2%]	[F] = [C] ÷ [A]
2007 (March Forward)	[redacted]		
2008			
2009			
2010			
2011 (Through July)			
Total			

Total SDARS Royalties Paid to SoundExchange [A]: [redacted]
Total Hypothetical Royalties Paid to SoundExchange if the Statutory Rate Remained at 2 Percent [E]:
Total Increased Royalties From Rate Increase [A]-[E]:

Total Calculated Amount of Recoupable SDARS Royalties [C]: [redacted]
Percentage of Royalty Increase over 2 Percent that Sirius XM was Allowed to Recoup [C]/([A]-[E]):

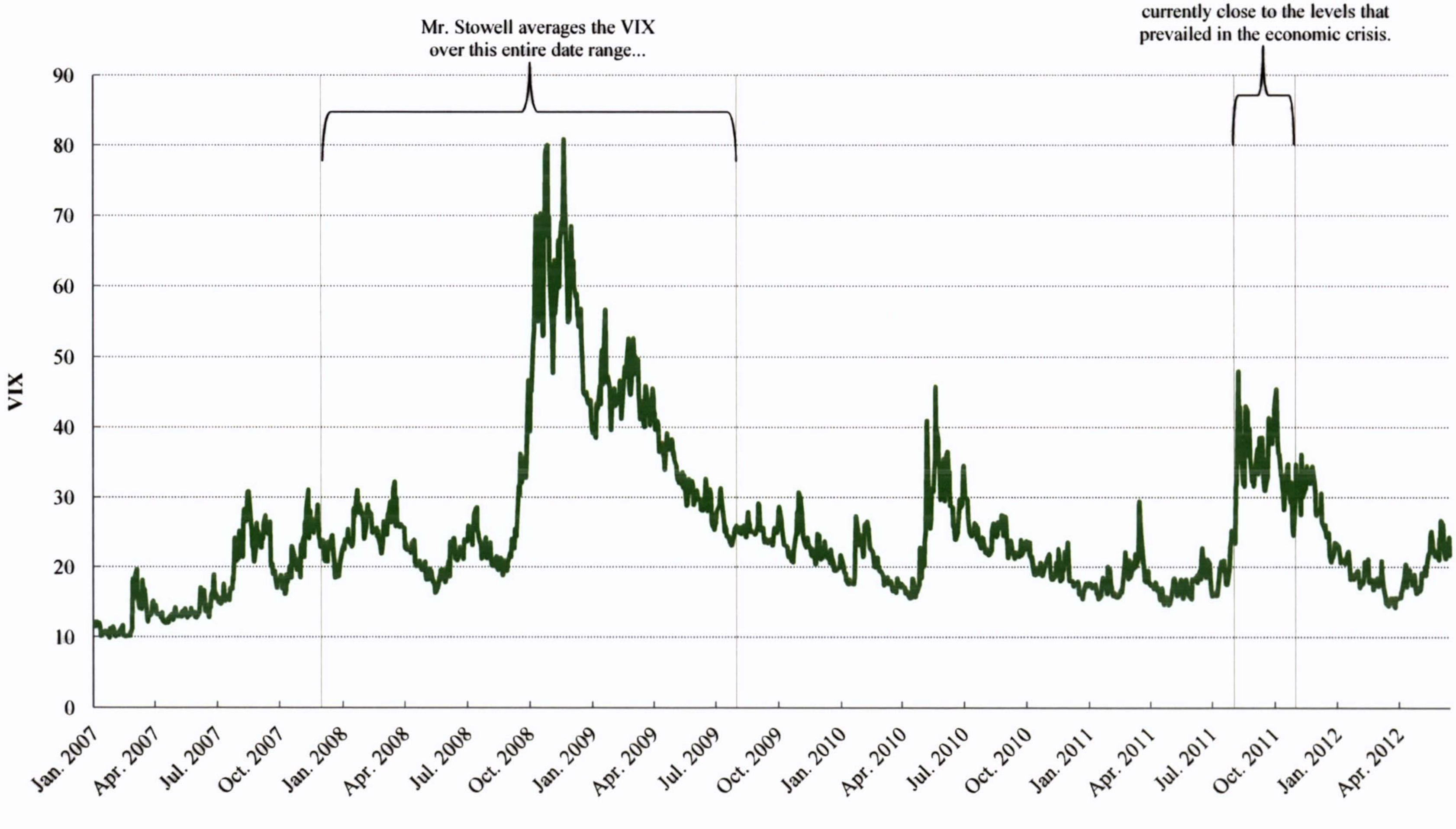
Notes:
[1] Data on SDARS Royalty and Revenue data are obtained from Statements of Account. See SXM_CRB_DIR_00001389-390 at 389 (2007 Sirius Statement of Account); SXM_CRB_DIR_00001425-426 at 425 (2007 XM Statement of Account); SXM_CRB_DIR_00032407-417 at 407 (2008 Sirius Statement of Account); SXM_CRB_DIR_00001391-392 at 391 (2008 XM Statement of Account); Updated Statements of Account for 2009 - 2011, provided by counsel.
[2] Sirius XM's internal documents show that [[redacted]]. Based on this methodology, Sirius XM was allowed to recoup any SDARS royalties above roughly $[[redacted]] million per month or roughly $[[redacted]] million per year. SXM_CRB_DIR_00007155-56. Column [B] displays the approximate amount SDARS royalties that Sirius XM could not recoup in each time period. SXM_CRB_DIR_00057924-933 at 926 and 932-933.
[3] Based on these rough estimates, Sirius XM was allowed under the FCC order to recoup approximately [[redacted]]% of the royalties paid to SoundExchange. Moreover, looking only at the increased royalties of $[[redacted]] million (i.e., subtracting the royalties that would have been paid if the royalty rate remained at 2 percent from the actual royalties paid), Sirius XM was allowed to recoup roughly [[redacted]]% of the royalty increase.
[4] Based on numerous documents I have reviewed, Sirius XM appears to have attempted to recoup [[redacted]]. See, e.g., SXM_CRB_DIR_00057924-933 at 927; SXM_CRB_DIR_00057912.

Attachment 14
Sirius XM
Historic Volatility
July 2008 - June 2012



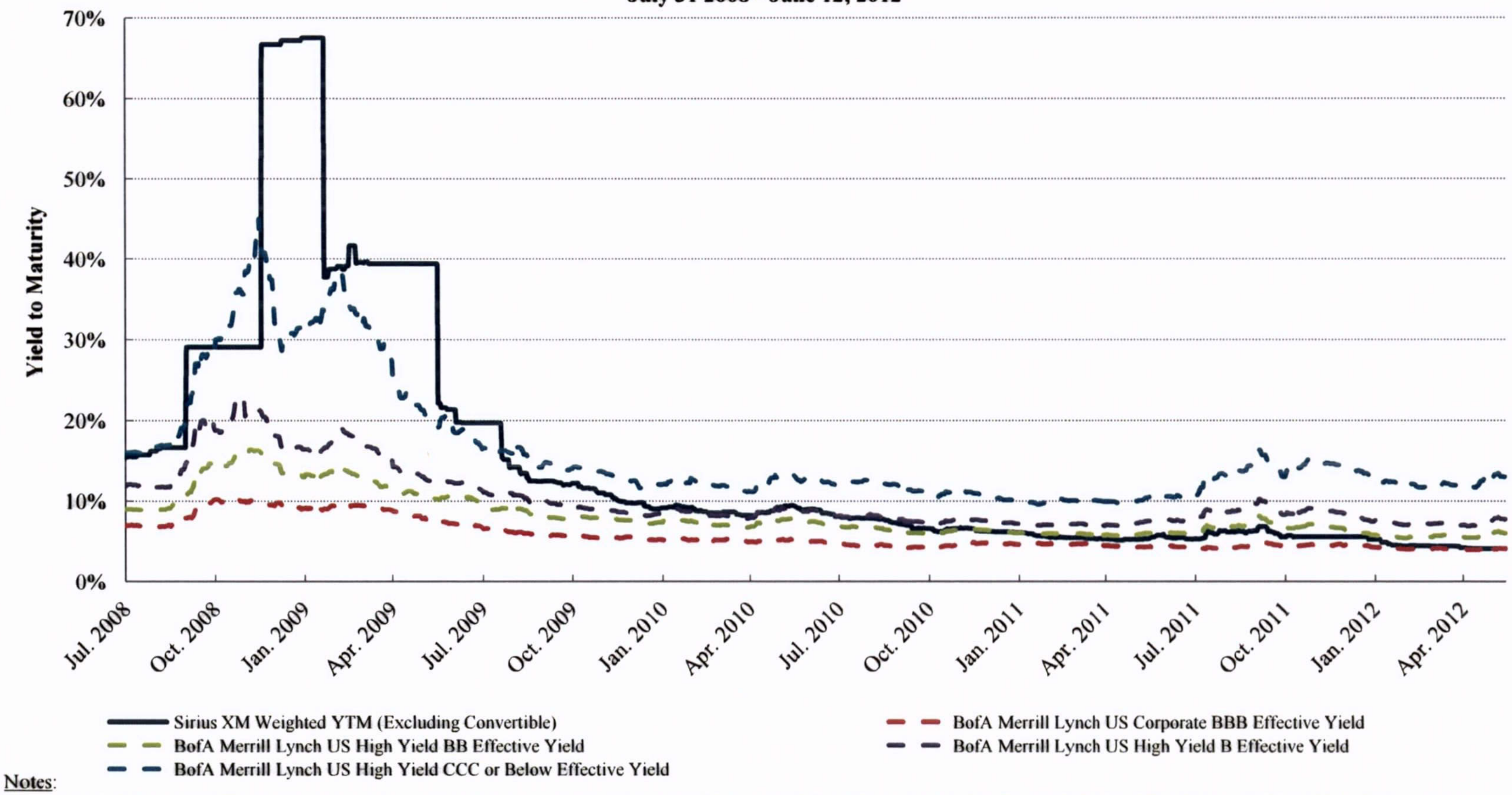
Notes:
[1] A 90-business-day input was used in the Historic Volatility calculation. See Bloomberg, L.P., and Lys Rebuttal Testimony footnote 172.
[2] The all-time low historic volatility from all available dates (February 20, 2002 through June 14, 2012) is 29.3 percent.

Attachment 15
Mr. Stowell's Analysis of The VIX Volatility Index is Misleading
January 1, 2007 through June 14, 2012



Notes:
[1] Mr. Stowell chooses to compare the average VIX for the 20 month period from December 2007 through July 2009 to the average VIX for the shorter, three month period from August 2011 through October 2011 (the three months before his initial report filing). See Stowell Testimony, pp. 16-17 n. 38.
[2] The Chicago Board Options Exchange Volatility Index reflects a market estimate of future volatility, based on the weighted average of the implied volatilities for a wide range of strikes. See Bloomberg, L.P.

Attachment 16
Sirius XM and BofA Merrill Lynch Index
Weighted Average Yield to Maturity of Sirius XM's Bonds (Excluding Convertible) vs.
BofA Merrill Lynch Index Yields
July 31 2008 - June 12, 2012



Notes:

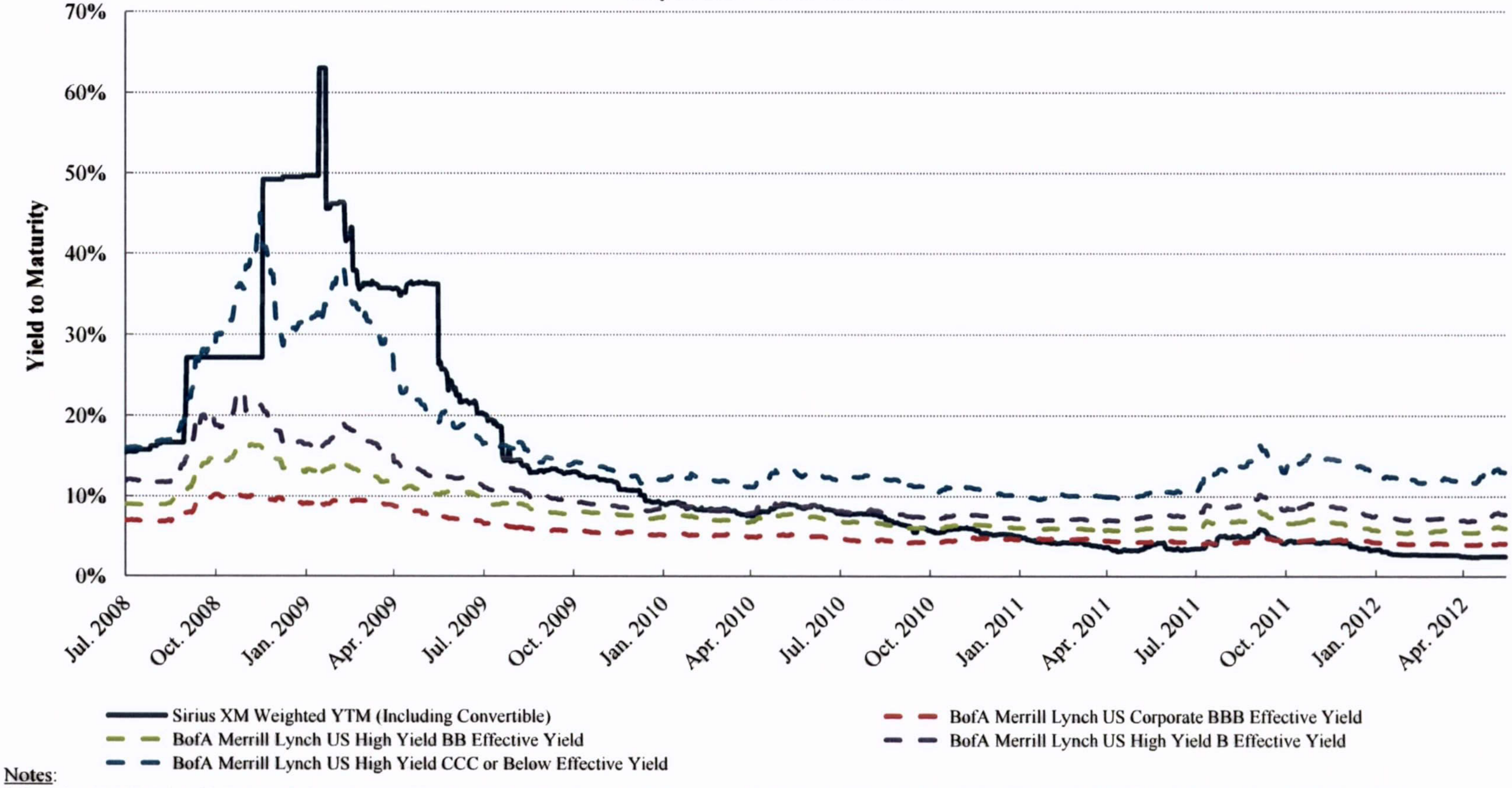
[1] Sirius XM Weighted YTM is calculated as the weighted average of yields for Sirius XM bonds US98375NAA81, US82967NAA63, US82967NAD03, and US98375YAZ97 weighted by issue amount as a percentage of total outstanding issue amount on a given date. For the purposes of this calculation, issue amounts become outstanding on the first day for which yield information is available from Bloomberg, L.P. Corporate bonds are listed by ISIN number. The four bonds 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, and each 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] BofA Merrill Lynch Index Yields are as reported by Federal Reserve Economic Data, available at research.stlouisfed.org/fred2/categories/32347, accessed on June 13, 2012.

[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 17
Sirius XM and BofA Merrill Lynch Index
Weighted Average Yield to Maturity of Sirius XM's Bonds (Including Convertible) vs.
BofA Merrill Lynch Index Yields
July 31 2008 - June 12, 2012



Notes:

[1] Sirius XM Weighted YTM (Including Convertible) is calculated as the weighted average of yields for Sirius XM bonds US98375NAA81, US82967NAA63, US82967NAD03, US98375YAZ97, and US98375YAU01 weighted by issue amount as a percentage of total outstanding issue amount on a given date. For the purposes of this calculation, issue amounts become outstanding on the first day for which yield information is available from Bloomberg, L.P. 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] BofA Merrill Lynch Index Yields are as reported by Federal Reserve Economic Data, available at research.stlouisfed.org/fred2/categories/32347, accessed on June 13, 2012.

[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.

Exhibits Sponsored by Thomas Lys

Exhibit No.	Description
SX Ex. 221-RP	Sirius XM, Q1 2012 Earnings Call, May 1, 2012
SX Ex. 222-RP	Sirius XM Radio CEO Mel Karmazin Speaks with CNBC's Jim Cramer Tonight on Mad Money w/Jim Cramer, March 9, 2012
SX Ex. 223-RP	Sirius XM at Morgan Stanley Technology, Media & Telecom Conference, February 12, 2012
SX Ex. 224-RP	Sirius XM, Q4 2011 Earnings Call, February 9, 2012
SX Ex. 225-RP	Sirius XM at Citi Entertainment, Media and Telecommunications Conference, January 4, 2012
SX Ex. 226-RP	Sirius XM, Q3 2011 Earnings Call, November 1, 2011
SX Ex. 227-RP	Sirius XM at BofA Media, Communications & Entertainment Conference, September 14, 2011
SX Ex. 228-RP	Sirius XM, Q4 2010 Earnings Call, February 15, 2011 (SXM_CRB_DIR_00020688)
SX Ex. 229-RP	Sirius XM, Q4 2009 Earnings Call, February 25, 2010
SX Ex. 230-RP	Audio Recordings of Conference Calls, Investor Meetings, and CNBC Mad Money Show
SX Ex. 231-RP	Sirius XM Form 10-K, 2011 Annual Report, December 31, 2011
SX Ex. 232-RP	Sirius XM Form 10-Q, First Quarter 2012 Quarterly Report, May 1, 2012
SX Ex. 233-RR	January 2010 Ratings Agency Update (SXM_CRB_DIR_00021075)
SX Ex. 234-RR	Sirius XM Board Presentation, 2010 Results and 2011 Budget (SXM_CRB_DIR_00015551)
SX Ex. 235-RR	Sirius XM Board Presentation, Capital Structure Update (SXM_CRB_DIR_00015682)
SX Ex. 236-RR	Sirius XM February 2010 Board Presentation (SXM_CRB_DIR_00015885)
SX Ex. 237-RR	2009 Q3 Finance Long Range Plan Board Presentation (SXM_CRB_DIR_00016102)
SX Ex. 238-RP	"Rush Limbaugh Should Want to Work for Sirius XM" (Forbes, April 6, 2012)
SX Ex. 239-RR	Sirius XM Presentation, MRF Update – July 8, 2010 (SXM_CRB_DIR_00057924)
SX Ex. 240-RR	Music Royalty Fee Sheet (SXM_CRB_DIR_00057912)
SX Ex. 241-RR	Sirius XM letter to FCC, May 12, 2010 (SXM_CRB_DIR_00017721)
SX Ex. 242-RR	December 2009 SDARS Royalty Calculation (SXM_CRB_DIR_00030512)

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

REBUTTAL TESTIMONY OF

MARK EISENBERG

Senior Vice President, Business and Legal Affairs,
Global Digital Business Group, SONY BMG Music Entertainment

PUBLIC VERSION

Witness for SoundExchange, Inc.

Written Rebuttal Testimony of Mark Eisenberg

Professional Background and Qualifications

1. My name is Mark Eisenberg. I am the Co-Founder and Chief Operating Officer of LatticeWorks Media, a digital media holding company which develops, incubates and operates collaborative community properties designed for social media access and distribution. LatticeWorks is developing properties that encompass the areas of crowd sourcing, topical community expression and e commerce. Three properties are in beta development to date. One, called *Take-a-Verse,* is a website and application widget enabling artists to write songs collaboratively with their fans. Another, called *MoodCount,* is an addictive and viral ratings and commentary tool for users that shares and measures sentiment across a wide spectrum of trending topics. *HelpersMarket*, the third property in beta development, is a social classifieds and commerce platform empowering local businesses and national chains to self-publish dynamic offers and deals targeted to specific communities of like interest. In addition to my work on these properties for LatticeWorks, I provide independent consulting services to a variety of media, entertainment and technology companies, drawing upon my expertise in both digital and traditional media.

2. I am an attorney admitted to practice law in the State of New York. Following graduation from New York University School of Law, I worked as an associate at two New York City firms, Willkie Farr & Gallagher and Gold Farrell & Marks, where I specialized in general commercial litigation, intellectual property and sundry entertainment matters.

3. In 1994, I was recruited to join the Law Department at Sony Music Entertainment as counsel. That commenced a 16-year tenure with Sony, during which time I held a number of executive positions, each with increasing responsibility, scope and authority. In the Law Department, I reported to the company's General Counsel and was charged with drafting

recording agreements, music publishing agreements and label distribution agreements. Thereafter, I was promoted to the Business Affairs group, where my duties expanded to include negotiating talent acquisition and distribution agreements and handling day-to-day commercial and legal issues for the Columbia Records, Epic Records and Nashville labels. Such matters included the acquisition of rights from the labels' recording artists and the royalty obligations flowing therefrom.

4. In the late 1990s I was asked to focus my efforts on the newly emerging digital technologies and was named Vice President, New Technology & Business Development. In this "first of its kind" executive position at a major record company, I explored the business opportunities relating to the transmission of sound recordings over the Internet and in other "new media" channels. I was also responsible for reviewing artist contracts and developing accompanying royalty structures for sharing company revenues from the sale and licensing of digital products embodying the artists' audio and audiovisual master recordings.

5. Throughout the years, my portfolio broadened to include worldwide oversight and senior management responsibilities over all of Sony Music Entertainment's digital initiatives. My most recent position at Sony was Executive Vice President and Head of Business & Legal Affairs, Global Digital Business Group. In that role, I was the lead deal-maker in negotiations with third party services for the use of Sony's master recordings in the panoply of digital music services, including the likes of Apple (iTunes), AOL, Google, Microsoft, Amazon, Walmart, MySpace, MTV, Yahoo, Last FM, Clear Channel, YouTube and Spotify. I also remained engaged in artist rights acquisition and royalty issues, as well as a vast number of music industry matters, including legislative initiatives and anti-piracy enforcement activities. I have testified as a company witness for Sony Music several times in front of the Copyright Royalty Board in

connection with statutory licensing rate-setting procedures, including Webcasting II (2005 CRB), SDARS I (2006 CRB) and Mechanicals/DPD's (2006 CRB).

6. In the Summer of 2010, I decided to leave Sony to pursue a network of entrepreneurial creative projects in the burgeoning area of social media. In addition to working on these owned and operated properties, I lend my expertise and counsel to outside companies who wish to draw upon my experience in music, digital media and disruptive distribution technologies. My consultancy clients have included major and independent music labels, media and technology companies and digital music services.

Assignment and Overview of Testimony

7. I have been asked by SoundExchange, through its counsel, to assess the direct license agreements that Sirius XM has entered into with a number of small independent record labels and to provide insight into the incentives and motivations that might have caused smaller, independent record labels to accept the offer. My analysis is based on my years of experience drafting, negotiating, and analyzing agreements for the use of sound recordings in digital music services and my knowledge of the record and music services industries, including the contractual relationships between record labels and recording artists. As set forth in more detail below, it is my opinion that the operational and business challenges facing independent labels, taken together with the favorable royalty accounting provisions in the underlying label-artist contractual relationship, created unique incentives for various independent labels to enter into direct licenses with Sirius XM that have little or nothing to do with the headline rate that was offered in those deals.

Background of Sirius XM Direct License Deals

8. According to the Corrected Written Direct Testimony of Ronald Gertz, the process of obtaining direct licenses for Sirius XM's services began in early 2010. Sirius XM Trial Ex. 14,

Corrected Written Direct Testimony of Ronald Gertz at ¶9 ("Gertz CWDT"). Mr. Gertz, who is the Chairman of Music Reports, Inc. ("MRI"), the company that acted as Sirius XM's agent in obtaining and administering the direct licenses, states that he "worked with David Frear, the CFO of Sirius XM, to define what type of license Sirius XM would offer to the labels, which labels we would approach, and in what order," in order to obtain the direct licenses for all of Sirius XM's statutory platforms along with certain expanded rights. *Id.* at ¶10.

9. According to Mr. Gertz, the first step in the direct licensing campaign was to "take a look at what Sirius was playing and try to rank the labels in order of performance to figure out what targets we would go after." 6/7/12 Tr. 832:22-833:5 (Gertz). The analysis that MRI conducted, which analyzed plays on Sirius XM from June 2009 through May 2010, showed that "roughly 35-45% of plays on Sirius XM represent tracks released by independent labels." Gertz CWDT at ¶11. Notably, this analysis by Sirius XM ranks all "plays" on the service equally, regardless of how many people are actually listening to a particular transmission of a song. Songs played on channels with smaller listening audiences or at times of the day when few people are listening to Sirius XM, regardless of the channel, are treated the same for purposes of MRI's market share calculations.

10. Mr. Gertz then worked with Les Watkins, MRI's Senior Vice President, Business Affairs & Business Development, and "business and legal people at Sirius XM" to develop the direct license form. 6/7/12 Tr. 839:3-7 (Gertz). The template license that was created, an example of which was included as Sirius XM Exhibit 7 attached to Mr. Gertz's written testimony, was designed to be something that the labels "would be likely to accept" but that did not "have a lot of variation in license agreements, especially dealing with the royalty pool and the fee allocation methodologies." 6/7/12 Tr. 839:18-840:2 (Gertz).

11. The royalty rate that MRI and Sirius XM decided to offer independent labels was either 5%, 6% or 7%. That range was developed with explicit reference to the then-current statutory rate for Sirius XM's satellite radio service. *See* 6/7/12 Tr. 841:18-842:6 (Gertz) ("[W]e were looking at existing statutory rates and tried to come up with a range of rates that the market would accept."). And in determining what rate to offer a given record label, MRI and Sirius XM chose to "offer 5 percent to those labels whose music was used less frequently, a little more to the ones in the middle, and the top rate to the labels that received the most plays." 6/7/12 Tr. 842:15-19 (Gertz).

12. Once the template agreement had been drafted, MRI began the process of distributing the offer to independent labels. Based on the most recent information that was produced in discovery, it appears that MRI sent the direct license offer to approximately 589 labels. *See* SXM_CRB_DIR_000089871 (SX Ex. 301-RR). After sending out the offer, MRI engaged in email discussions about the direct license offer with numerous record labels.

13. Although MRI was apparently authorized to negotiate certain aspects of the direct license with individual labels, there appear to have been certain aspects of the licenses on which Sirius XM was unwilling to make any concessions. For example, [redacted] ([[redacted]]) (SX Ex. 302-RR). [redacted] 6/7/12 Tr. 950:22-951:7 (Gertz); *see, e.g.*,

SXM_CRB_DIR_00055951 ([redacted]") (SX Ex. 303-RR).

14. Another example of an issue about which Sirius XM was apparently unwilling to negotiate is the inclusion of a most-favored nations ("MFN") provision in the direct license. MRI passed along to Sirius XM several label requests for MFNs, but those requests were not accommodated. *See* SXM_CRB_DIR_00040690 ([email from Trent Smith at MRI to Glenn Davis, an attorney representing Dangerbird Records, explaining that the MFN provision Davis had requested "is still being addressed with our client"]) (SX Ex. 304-RR); SXM_CRB_DIR_00048865 ([redacted]) (SX Ex. 305-RR). Contrary to Mr. Gertz's testimony, in which he claimed he was not aware of any labels that asked for MFNs, 6/7/12 Tr. 949:10-12 (Gertz), MRI had to develop standard language and strategies to deflect MFN requests. *See* SXM_CRB_DIR_00008441 ([redacted]) (SX Ex. 306-RR); SXM_CRB_DIR_00029412 ([redacted]) (SX Ex. 307-RR); SXM_CRB_DIR_00029154 ([redacted]) (SX Ex. 308-RR); SXM_CRB_DIR_00041020 ([redacted]) (SX Ex. 309-RR).

15. Many other labels asked for MFNs, including some that eventually took direct licenses.[1] One label gave MRI two options: a shorter term length or a rate tied to the statutory rate. *See* SXM_CRB_DIR_00057646 ([[redacted]]) (SX Ex. 310-RR). In addition, MRI independently raised the possibility of granting an MFN (with specific reference to the 2013-2017 statutory rate) to certain direct license targets, but Sirius XM appears to have prevented any such offers from being formalized. *See* SXM_CRB_DIR_00055353 ([[redacted]]) (SX Ex. 311-RR); SXM_CRB_DIR_00054870 ([[redacted]]) (SX Ex. 312-RR).

16. Ultimately, Sirius XM executed direct licenses with 62 record labels prior to the submission of the written direct statements in this proceeding, and as of late March 2012 had executed deals with a total of 78 labels. *See* SXM_CRB_DIR_000089871 (SX Ex. 301-RR). This means that close to 90% of the labels that were offered the direct licenses rejected the offer, either by explicitly doing so or by simply not executing the agreement. 6/6/12 Tr. 310:6-8 (Noll) ("Yes, it's many more said no than yes, yes."). The future status of any further negotiations for

[1] *See, e.g.*, SXM_CRB_DIR_00007951 ([[redacted]]); SXM_CRB_DIR_00047357 ([[redacted]]); SXM_CRB_DIR_00047940 ([[redacted]]); SXM_CRB_DIR_00053328 ([[redacted]]); SXM_CRB_DIR_00053847 ([[redacted]]).

direct licenses is uncertain, with Mr. Gertz referring to any other negotiations as "pretty dormant." 6/7/12 Tr. 851:18-22 (Gertz). Moreover, Mr. Gertz was uncertain whether Sirius XM would retain MRI to continue the direct license initiative. 6/7/12 Tr. 951:9-952:9 (Gertz).

<u>The Direct Licenses Account For an Immaterial Share of the Market for Sound Recordings</u>

17. Under the market share analysis that MRI conducted using Sirius XM's playlist data for May 2009 through June 2010, the total market share represented by the 62 licenses signed at the time of the submission of the written direct testimony in this case was [[redacted]]. SXM_CRB_DIR_00041942 (SX Trial Ex. 19); SXM_CRB_DIR_00055746 (SX Trial Ex. 20). Individually, none of the labels accounts for more than [[redacted]] of plays on the service. SXM_CRB_DIR_00041942 (SX Trial Ex. 19). Indeed, [[redacted]] of the 62 direct license labels had a reported market share of 0%, even when MRI calculated market share to 5 decimal points. *Id.* And the market share of the 78 executed licenses by around March 16, 2012, was [[redacted]]. *See* SXM_CRB_DIR_00089871 (the latest version of the status update spreadsheet provided in discovery) (SX Ex. 301-RR). In fact, using the MRI market share analysis to rank record labels' market share, none of the top 25 labels had been signed at the time the written direct testimony was submitted, and only two top 25 labels were signed subsequently.

18. Sirius XM's playlist for the period August 2011 – a period preceding the effective term of the direct licenses – further shows the sparse sampling represented by the 78 labels which ultimately entered into direct deals. During that month, 30 of the 78 direct-license labels did not even exceed a dozen plays for their respective labels (across all tracks) during this accounting period. In the aggregate, the market share for the 78 labels combined during this period was [[redacted]].

19. Actual royalty payment data from Sirius XM confirms that the direct license labels historically received little play on Sirius XM. Based on materials received in discovery, I have access to the royalty payment information for 54 of the direct license labels that were paid royalties in the Fourth Quarter of 2011. Based on that information, the direct license labels accounted for a [[redacted]] market share (meaning the percentage of plays on the satellite radio service) in the fourth quarter of 2011, which was the first quarter during which most of the direct licenses were effective (and thus was a time period when Sirius XM had an incentive to increase the plays of these labels' recordings).

20. During the direct hearing, Mr. Gertz suggested that the market share analysis conducted by MRI as the launchpad for the direct licensing initiative was not a particularly good source of data for determining how many of the top 20 or top 25 labels had signed direct licenses. 6/7/12 Tr. 906:3-20 (Gertz). According to Mr. Gertz, Sirius XM's current royalty data is better optimized for such an analysis. *Id.* Mr. Gertz further claimed that if the market share was calculated today based on plays of direct licensed content on Sirius XM, "[i]t would be pushing 6 percent." 6/7/12 Tr. 937:13-17.[2] The problem with this claim – apart from the fact that I do not have access to data to verify it – is that Sirius XM controls how much each sound recording is played, and therefore can inflate for litigation purposes the apparent share of plays on the Sirius XM service represented by the direct license labels. The market share and popularity of the sound recordings licensed under direct licenses is, in my view, better assessed by looking at time periods before litigation incentives came into play.

21. Another way to assess the market share of the labels that signed direct licenses, unaffected by decisions made for litigation purposes, is to look at the market share of these labels

[2] In contrast, Prof. Noll testified that the current market share of the direct license labels is over 4 percent. 6/6/12 Tr. 308:3-5 (Noll). Without access to the data on which Prof. Noll and Mr. Gertz are relying for their respective claims, I cannot evaluate which measure is more accurate.

in respect of terrestrial airplay. I have examined 2011 airplay data synthesized by a non-testifying consultant, Massarsky Consulting Inc., which it compiled from source data gathered by Mediabase, the seminal music industry service that monitors radio station airplay in the United States. In 2011, of the top 1000 artists in various radio formats, the artists specifically identified with the 78 labels which entered into the direct-licensing deals with Sirius XM accounted for just 0.203% of the total market share of radio "spins". The Mediabase airplay market share for the initial complement of 62 labels signed at the time of the submission of the direct written testimony was considerably lower than this – 0.057%. Moreover, even extending the benefit of the doubt in instances in which the label designation for a particular artist was not sufficiently verified in the Mediabase system, and consequently attributing *all* plays from a given artist to the direct-licensed label notwithstanding the fact that the same artist had recorded for labels other than the Sirius XM direct licensees, the corresponding market shares remained exceedingly small – .093% for the initial complement of 62 labels and 0.291% for all 78 labels.

22. Like all music services, Sirius XM must ultimately play the music that its customers want to hear. Indeed, Mr. Gertz acknowledged that "Sirius XM is very hits driven, and they want to have the most successful service they can, so they're going to use what's popular." 6/7/12 Tr. 836:17-20 (Gertz). The fact that the record labels whose catalogues have been licensed under the direct licenses represent such a small portion of both satellite radio and terrestrial radio plays certainly suggests that these catalogues do not contain the popular music that Sirius XM needs. Prof. Noll, however, concluded that the catalogs of the independent labels signing direct licenses – taken in the aggregate – are representative of the catalogs of the major labels. *See* Noll AWDT at 42-45. Prof. Noll based his conclusion that the direct license labels are representative on the testimony of Mr. Gertz and Steven Blatter, Sirius XM's Senior Vice President and General

Manager of Music Programming, but also on his own personal review of the recordings and "key artists" controlled by the direct license labels. Noll AWDT at 42-45.

23. The problem with Dr. Noll's approach, apart from its subjective nature, is that the mere appearance of an artist on an independent label's list of catalog artists does not necessarily mean that the artist's entire catalog resides with the independent label. Indeed there are many, many cases in which an artist begins his or her career on an independent label before making a more "permanent" home with a major (either through a direct signing or by a distribution arrangement). Additionally, there are cases in which an artist signed to a major label is afforded the opportunity to contribute a single recording or selected tracks for circumscribed outside projects released by an independent label. Examples of artists identified by MRI (and apparently considered by Dr. Noll) as "key artists" whose catalogs are not entirely controlled by direct license labels include Spyro Gyra, Animal Collective, and the composer Stephen Sondheim.

The Motivations for Accepting a Direct License

24. Although the number of labels that accepted the offer of a direct license is relatively small, the fact remains that some labels did sign direct licenses. But their reasons for doing so likely were rooted in the unique business considerations and circumstances confronting the small independent labels. In the remaining portions of this testimony, I discuss a number of these motivating factors.

A. ***The Label Net Rate and Label Effective Rate vs. the Headline Rate***

25. Under the current statutory rate applicable to calendar year 2012, Sirius XM pays SoundExchange at the "headline rate" of 8% of "Gross Revenues" for SDARS transmissions (the "SDARS Rate"). *See* 37 C.F.R. § 382.12(a).[3] The direct licensing rates for the satellite radio

[3] Most of the direct licenses were executed by Sirius XM in 2011, when the SDARS Rate was 7.5%. *See* 37 C.F.R. § 382.12(a).

service (hereinafter referred to as the "Direct-Deal Rates") are slightly less favorable than the established SDARS Rate. It appears to have been the strategy of Sirius XM to offer a Direct-Deal Rate close enough to the statutory SDARS rate that other inducements would make the direct license more attractive. As Mr. Gertz explained, "I thought from experience, that getting direct payment and being able to avoid any fee and cost deductions of the middlemen and whatever issues a user may have with the middleman's distribution systems, that the copyright owners would be willing to take slightly less than the statutory fee." 6/7/12 Tr. 841:22-842:6 (Gertz).

26. One of the ways that Sirius XM made its Direct-Deal Rate potentially more attractive than the SDARS Rate was to structure the license so that the record labels would actually receive more money, despite a facially lower headline rate, because no administrative costs would be deducted and the label would receive the artist's share of the royalties (in contrast to the statutory process that requires SoundExchange to pay the artist share directly to the artists). The latter, in particular, was a key selling point of Sirius XM in soliciting the independent labels to accept the direct license, with MRI stressing to labels the fact that under the direct license, Sirius XM would pay 100% of the royalties directly to the label, thereby bypassing the direct-to-performer and direct-to-union distributions otherwise prescribed under the statutory license administered by SoundExchange. *See* SXM_CRB_DIR_00046253 ([[redacted]]) (SX Ex. 313-RR); SXM_CRB_DIR_00047705 ([[redacted]

[redacted]]) (SX Ex. 314-RR); SXM_CRB_DIR_00079565 ([[redacted]]) (SX Ex. 315-RR); SXM_CRB_DIR_00081231 (SX Trial Ex. 18) (email from Marc Edelman at Sharp Nine Records to Jake Terrell: "Not to belabor the point, but why would SoundExchange unilaterally give half my royalties away without it knowing how my contracts read? Where would they get that idea? Is there anything in the statutes concerning this? Because, in fact, I pay my artists a flat fee and, lacking any statutory language to the contrary, they would not be entitle[d] to any of these monies. Obviously, if I can keep 100% of my royalties I would like to.").

27. Pursuant to 17 U.S.C Section 114 (g)(2), statutory license receipts from the SDARS service must be apportioned by SoundExchange, as follows:

- 50% to labels
- 45% to featured performers
- 2.5% to non-featured vocalists; and
- 2.5% to non-featured musicians.

Accordingly, under the statutory license, the net paid to the label (which I will refer to as the "Label Net Rate") resulting from the 7.5% SDARS Rate in 2011 was 3.75%.[4]

[4] For simplicity's sake, my comparison of the Label Net Rate under the statutory license does not include consideration of the 5% rate for the ephemeral reproduction right under 17 U.S.C. § 112. The statutory license for the ephemeral right mandates distribution solely to the relevant copyright owners (there is no artist share). The Label Net Rate under the bundled Section 112 and 114 royalty is therefore slightly greater than 50% of the statutory rate, because 5% of the statutory royalty goes directly to the label. Accounting for the ephemeral royalty, however,

28. Direct licensing arrangements between service providers and labels do not provide for the same label-performer apportionments. And in the absence of the statutory provisions, the relationships between the label on the one hand, and its artists, musicians/vocalists on the other, are governed by their individually negotiated contracts, which can increase the Label Net Rate in excess of the statutory allocation. *See* 17 U.S.C. § 114(g)(1) (providing that when a direct license is used instead of the statutory license, the artist "shall be entitled to receive payments from the copyright owner of the sound recording in accordance with the terms of the artist's contract").

i. *Featured Artist Share*

29. Mr. Gertz testified that it is "not very common" for artist contracts with record labels to call for them to receive less than 50% of the royalties for uses of the recordings. 6/7/12 Tr. 880:11-14 (Gertz). Mr. Gertz appears to be unfamiliar with the basic structure of the contractual arrangements between record labels and performing artists. Artists' revenue-sharing arrangements with record labels generally take the form of one of the following paradigms: a "royalty rate" deal; a "net receipts" deal; or a "profit-split" deal.

- Under a "royalty rate" deal structure, the artist is paid a specified percentage of the royalties that the label receives for digital distribution across various platforms. The royalty rates payable to the artist on digital licenses generally track the so-called "top-line" rate on the sale of CD's or digital downloads – which is typically within the spectrum of 12% to 25% (and predominantly 14-18%) of the label's gross proceeds from the digital service provider concerned. This contractual apportionment is far below the 45% of royalties that is paid

does not have a material impact on any of my conclusions about the relative value of the headline rates in the statutory license compared to those in the direct licenses.

directly to featured artists under the statutory license. Thus, with respect to an artist subject to a royalty rate deal, the Label Net Rate on a 7% Direct-Deal Rate would be in the range of 5.25% to 6.16% -- significantly higher than the Label Net Rate of 3.75% under the statutory license in 2011.

- Artists paid on a "net receipts" basis are similarly paid in accordance with a "top-line" CD rate (again, generally within the 12-25% spectrum and gravitating towards 14-18%), although in certain artist recording agreements -- typically older, legacy contracts -- the applicable "net receipts" rate for digital licenses might be 50%, as captured under a "catch-all" royalty provision. The primary difference between a "net receipts" structure and a "royalty rate" structure is that the former also provides for certain costs to be offset against the label's gross receipts prior to the application of the artist's nominal contract rate (thereby decreasing the artist's effective rate and increasing the label's retained share). These contractual offsets could take the form of expenses incurred in connection with production and/or applicable exploitation of the recordings, expenses incurred in the connection with the collection of receipts, and/or union and other third-party payments. Although the specifics of the contractual offsets under a "net receipts" artist contract make it difficult to estimate a Label Net Rate under a direct license with Sirius XM, any such offsets would lead to an even higher Label Net Rate than that yielded under a traditional "royalty rate" deal.
- Profit-split deals between a label and artist, like "net receipts" arrangements, enable labels to offset – i.e., deduct – certain expenses incurred prior to sharing *any* licensing revenues with its participating artists. Such expenses could include the categories outlined in the context of "net receipts" above, as well as a wide

variety of additional expenditures incurred during the course of the artist's recording and entertainment activities, including without limitation, independent radio promotion, independent publicity, independent marketing, advertising, tour support, website costs, creative services, general accounting and collection, attorney's fees, fees and royalties paid to third parties (producers, mixers, music publishers and unions). Notably, under a profit-split deal wherein the artist and label share profits in equal proportion, the label would retain 100% of the proceeds from the Sirius XM direct license until such time as the artist account is in a profitable position, if ever.[5] Again, the application of this private-party contractual arrangement provides a very significant economic benefit to the direct licensing label – *i.e.*, as much as double the Label Net Rate generated under the statutory license, where the artist share automatically "flows through" directly to the artist, irrespective of the status of its account with the label.

30. Further, it is a well-established, deeply entrenched custom and practice in artist recording agreements throughout the music industry – under any of the revenue-sharing arrangements detailed above – for artists to stand behind multiple categories of costs and payments, which are "recouped" or offset from earnings credited to an artist's account prior to the disbursement of funds to the artist. Such recoupable costs can include, by way of example, cash advances tendered to the artist, living expense monies, tour support advances covering deficits from an artist's touring activities, the production costs of recording and mastering tracks, video production costs, and various marketing, artwork and promotion expenditures. Payments credited to an artist account are first recouped (*i.e.*, offset) against these outstanding advances

[5] Profit split arrangements, moreover, do not necessarily take the form of a 50-50 split. Indeed, various private-contract arrangements provide for artists to receive *less than 50%* of the "profits" (calculated after the deduction of numerous costs and offsets).

and costs. Thus, where an artist account is in an unrecouped position, the label is authorized to retain the entirety of the artist's share until such time as the account converts to an "earned" position, if ever. Indeed, the vast majority of active recording artists on a given label are unrecouped, given the significant up-front costs incurred in fostering artist development and providing living advance stipends. Under the statutory license, the SDARS royalties for the artists are paid directly to the artists even if they are not yet recouped. By receiving 100% of the royalties directly from Sirius XM, the label receives another source of revenue that may be used to recoup the initial expenses. *See* Gertz CWDT at ¶ 20; *see also* 6/6/12 Tr. 345:5-10 (Noll).

31. Significantly, the application of these individualized contractual arrangements to SDARS royalty collections serve to increase the label yield in the direct licenses in comparison to the statutory license, which firmly caps the label share at 50% of the "headline rate." Moreover, with respect to unrecouped artist accounts – which account for an overwhelming majority of label activity (both major labels and independent labels alike) – the direct licenses would lead to all of the licensing proceeds to be retained by the label. Thus, in each of these three revenue-sharing scenarios, the Label Net Rate is almost certainly higher under a direct license than under Section 114 – even though the "headline rate" is nominally lower.

32. The margin between the Label Net Rate under the direct license and the Section 114 license is even more pronounced for particular niche labels which obtain rights from performers on a "buyout" basis. Here, master recordings are commissioned as works-for-hire, and the label's exploitation rights are acquired via contract from the performers on a royalty-free basis. Accordingly, direct licenses entered into between Sirius XM and these labels yield a Label Net Rate which is equivalent in all respects to the "headline rate."

33. Consider for example, the [[redacted]] franchise of cover recordings distributed by the independent label [[redacted]], a direct license label. Given the unique focus of this franchise,

the performers on these tracks are most likely not involved in an ongoing contractual relationship with the label such that they would be entitled to royalties.[6] Under the statutory license [[redacted]] Label Net Rate for plays of these recordings would be 50% of the SDARS Rate royalty (i.e., 3.75%), less SoundExchange's administrative fee (yielding a Label Effective Rate of 3.55%). The remaining 50% of the SDARS Rate payable on these sound recordings (i.e., the 45% otherwise payable to featured performers plus the 5% payable to non-featured musicians and vocalists) would not be distributed by SoundExchange to [[redacted]], even if [[redacted]] had in fact negotiated a buyout from the performing artists concerned. The statutory license does not provide a mechanism for such monies to be re-directed to the label as an assignee or transferee. Instead, these monies would either be claimed by the performers or be treated as unclaimed royalties. By contrast, a direct license between [[redacted]] and Sirius XM could channel payment of 100% of the direct license royalties directly to the label. If [[redacted]] obtained its rights from the performers on a full buyout basis, the Label Net Rate (and ultimately the Label Effective Rate) would rise to the full "headline rate" – i.e., increasing from 3.55% under an SDARS Rate deal administered by SoundExchange to 7% under a direct license.

34. A similarly high-yielding Label Effective Rate would almost certainly be achieved through a direct license between Sirius XM and [[redacted]], [redacted] [[redacted]] [redacted][7] Not surprisingly, [[redacted]] is also

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[6] Since being founded [redacted] *See* [[redacted]] (SX Ex. 316-RR).

[7] [redacted]

among the independent labels that accepted a lower "headline rate" direct license. The absence of artist/performer set-asides enables these uniquely-situated labels to capture significantly greater value from a Direct Deal Rate. To the extent that [[redacted]] does not have to pay any artists the artists' share, it can keep all of the direct license royalty payment, and the amount it receives under the direct license is effectively double the rate it would receive under the statutory license.

ii. *Featured Artist Share*

35. In addition to the 45% payments of statutory royalties to featured artists, 5% of the royalties are paid to the non-featured musicians and vocalists. That 5% gets paid by SoundExchange to a fund administered collectively by the musicians union, AFM, and the vocalists union, SAG/AFTRA. *See* Written Direct Testimony of Raymond Hair, at 4-5 (SX Trial Ex. 73).

36. MRI specifically emphasized the fact that the union fund payments would go directly to labels under the direct licenses. *See* SXM_CRB_DIR_00055280-81 (SX Trial Ex. 17) (email from Trent Smith to Ronald Gertz and Karyn Ulman attaching a document entitled "Sirius XM—SUMMARY OF MAIN 'SELLING POINTS' TO LABELS," which listed the point: "Sound Exchange pays artist shares directly to artists and withholds 5% of royalties for union fund; under direct license 100% of royalty is paid to labels"). Outside of the context of the statutory license, the unions have executed agreements with record labels to ensure that non-featured musicians and vocalists receive some royalties from the distribution of sound recordings. Many independent labels, however, are not signatories to the union agreements, and thus make no

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[redacted] (SX Ex. 317-RR); [redacted] (SX Ex. 318-RR).

union payments in respect of digital licensing income. *See* 6/7/12 Tr. 884:6-22 (Gertz) (discussing a friend who "[w]hen he's paid through the statutory license, he gets a 5 percent haircut from the unions that he's not a signatory to"). The Label Net Rate for those independent labels under a direct license is thus not adversely impacted by an obligation to allocate 5% of the payment proceeds to non-featured musicians or non-featured vocalists, as is required under the statutory license.

iii. *Administrative Fee*

37. As in any collective licensing arrangement, the Label Net Rate is subject to a further reduction based upon the collective's administrative fee, assessed against the collective's gross receipts to cover the internal costs of collections and distributions. In 2011, the SoundExchange administrative fee was 5.3% – thereby yielding an effective rate (the "Label Effective Rate") of 3.55%, in contrast to the "headline rate" of 7.5%.

38. In all cases, a direct license circumvents SoundExchange's administrative fee altogether, thereby raising the Label Effective Rate even higher. Much like the artist share issue, the ability to avoid SoundExchange's administrative fee was explicitly identified as a "selling point" of the direct license. *See* SXM_CRB_DIR_00055281 (SX Trial Ex. 17) ("SoundExchange deducts administrative fees (approx. 6.9%) from royalties—direct deal has no deductions"); SXM_CRB_DIR_00053139 ([[redacted]]) (SX Ex. 319-RR).

39. Notably, in the case of international labels whose operations are based outside the United States, performance royalties may be subject to multiple layers of administrative fees. A UK-based label (and/or performer), for example, might be registered with the PPL for the collection of performance royalties, which in turn, may be registered with SoundExchange for the collection of SDARS royalties on behalf of the participating UK label (and/or performer). In such instances, the Label Effective Rate would be the byproduct of two sets of PRO administrative fees. A direct license deal with Sirius XM in such cases would yield a demonstrably higher Label Effective Rate for the licensor concerned.

40. Moreover, in a truly transparent, apples-to-apples comparison of the direct licenses to the statutory license, one must give due consideration to the amount that Sirius XM is paying MRI to administer the direct license. That administration cost is still being incurred in connection with distributing royalties, but under the direct license, Sirius XM is adding it as a cost <u>after</u> paying out the royalties. *See* SXM_CRB_DIR_00046253 ([[redacted]]) (SX Ex. 313-RR).

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41. Ultimately, I agree with Prof. Noll's acknowledgement that the payment of 100% of the royalties directly to a label improves upon the label's chances of recouping their investment and, in the case of works-for-hire (and for consistently unrecouped artists), would render a 7% direct license rate effectively the same as a 14% statutory license rate. *See* 6/6/12 Tr. 345:5-10; 347-7-14 (Noll). And in fact, evidence suggests that some labels were motivated explicitly by the ability to obtain 100% of the royalties directly.

B. Short Terms, Availability of Advances and Accelerated Royalty Payments

42. Another salient feature of the direct licenses that makes them an inappropriate benchmark for the SDARS royalty rate is the short duration of the agreements. The royalty rate being established in this proceeding will apply for the five-year term 2013-2017. In contrast, the direct licenses are almost all three years long, with one of the years of the direct license overlapping with the current rate term. 6/7/12 Tr. 948:1-5 (Gertz). A few direct licenses are for terms shorter than three years. *See* SXM_CRB_DIR_00018812 ([[redacted]]) (SX Ex. 320-RR); SXM_CRB_DIR_00018950 ([[redacted]]) (SX Ex. 321-RR); SXM_CRB_DIR_00041849 ([[redacted]]) (SX Ex. 322-RR); SXM_CRB_DIR_00089162 ([[redacted]]) (SX Ex. 323-RR); SXM_CRB_DIR_00089185 ([[redacted]]) (SX Ex. 324-RR); SXM_CRB_DIR_00057908 ([[redacted]]) (SX Ex. 325-RR). None of the licenses extend for a longer period than three years. 6/7/12 Tr. 948:22-949:3 (Gertz).

43. The minimal term of the direct licenses is important to understanding the motivations of labels that entered into these agreements. Ultimately, there is little downside for a label entering into a short-term direct license. If the rate set by the Court is significantly higher than a label's particular direct license rate, the label will still receive the benefit of that higher rate for the last three years of the upcoming statutory term.

44. The direct licenses also present a uniquely attractive option for certain independent labels in need of an accelerated cash flow. Sirius XM is required to report its use of sound recordings to SoundExchange within forty-five (45) days at the end of each calendar month. 37 C.F.R. § 370.3(d)(3)(i). Sirius XM's payments to SoundExchange are subject to the same timing. 37

C.F.R. § 382.13(c). SoundExchange thereafter processes these accountings to make quarterly distributions to its label and artist members. Based upon the deluge of incoming reports and in many cases, the absence (or corruption) of critical metadata from the licensees, the turn-around time for making distributions can be several months. In the direct licenses, Sirius XM covenants to make accelerated distributions directly to the label-licensee within forty-five (45) days of the calendar close.

45. Smaller, independent labels are likely to find this accelerated cash flow especially attractive, given their cash flow needs in respect of funding artist development and label marketing activities. By contrast, the well-capitalized multi-national major labels, some of whom like Sony Music and Universal Music are affiliated with even larger conglomerates, may be more accepting of the natural time-lag in accountings as a tradeoff to receiving a higher statutory rate grounded in marketplace precedent.

46. Similarly, Sirius XM enticed some independent labels with significant cash advances, which likely influenced their decisions to enter into lower "headline rate" deals. Not only did advances guarantee that the labels earned a minimum amount of revenue from Sirius XM, but they also proved particularly attractive in helping address cash flow issues. Many independent labels, especially in a period of economic uncertainty like the present, operate on very thin margins and the kinds of advances offered by Sirius XM could make a material impact on their abilities to continue operating. For example, Sirius XM's direct license with [[redacted]] provided for an advance of [[redacted]], payable [[redacted]] SXM_CRB_DIR_00089209 (SX Ex. 326-RR). Based upon the length of the term of that direct license, Sirius XM's pre-payment of royalties contemplated front-loading at least (3) three years of [[redacted]]'s anticipated royalty flow under the deal (and potentially, up to five (5) years,

given Sirius XM's post-term recoupment rights). *Id.* Lump-sum pre-payments were likewise provided to [[redacted]], SXM_CRB_DIR_00057508 (SX Ex. 327-RR); [[redacted]], SXM_CRB_DIR_00042455 (SX Ex. 328-RR); [[redacted]] SXM_CRB_DIR_00057908 (SX Ex. 325-RR); and [[redacted]], SXM_CRB_DIR_00089185 (SX Ex. 324-RR).

47. If at the end of the recoupment period Sirius XM has not played the label's recordings enough to actually justify the advance (from Sirius XM's perspective), the record label nonetheless will have enjoyed the full benefit of an upfront payment of a future royalty stream which otherwise would have spanned multiple years. These advances against future (and speculative) royalty streams provide needed financial cushion to independent labels who may be experiencing pressing cash flow needs and/or who desire to use the up-front monies to fuel further growth and expansion. SoundExchange, by contrast, does not tender cash advances to its members – against Sirius XM distributions or otherwise.

C. Attractiveness of Direct Contacts between an Independent Label and A Large Service Provider

48. The smaller market-share independent labels willing to adopt the Direct-Deal Rates were also very likely drawn to the "individualized attention" emanating from a direct license, even at the expense of a reduced "headline rate." Mr. Gertz referred to the direct relationship between Sirius XM and the direct license labels as the most important aspect of the direct licenses. 6/7/12 Tr. 836:1-6 (Gertz).

49. Major labels and independents with substantial airplay and/or record sales routinely enjoy bilateral, direct lines of communication with their digital distributors. Indeed, their marketing and sales staffs are assigned specific points of contact with digital licensees to facilitate

marketing campaigns and featured placements. Resources are significantly constrained in regards to services' day-to-day interaction with the smaller independent labels, however. Digital services such as Sirius XM often interact with smaller content providers through intermediaries and aggregators, who undertake the responsibility for licensing and/or distributing the independents' catalogs, along with making the content deliveries. And, in many cases, the aggregators also perform the marketing and promotion functions. While this disintermediation is not ideal for the smaller labels, it is nonetheless a reality, due to the sheer volume of sound recordings and the finite human resources of a distribution partner. Lacking the same kind of access to or relationship with a music service like Sirius XM that the larger record companies have, small independent labels might have viewed entering into a direct license as an opportunity to establish direct contacts with Sirius XM.

50. These relationships and lines of communication matter for several reasons. First, more airplay on Sirius XM means more royalties. A small independent label may feel that its artists are worthy of play, especially on the more niche channels, but there are so many independent labels and so many artists that getting the attention of Sirius XM's programmers can be difficult. The direct license is a way for small labels that lack the marketing muscle of a bigger company to obtain visibility, increasing the number of plays and the aggregate royalty payments. The prospect of an opportunity to increase plays and royalties via a direct license relationship would be particularly attractive for small independents because a label with few or no plays on Sirius XM has little to lose from a lower rate, and even a modest increase in the number of plays might produce a significant increase in the total royalties for a company that had few plays to begin with.

51. MRI emphasized this in its negotiations with the independents, suggesting that direct licenses were a path to increased play counts and preferential treatment in program selections.

See, e.g., SXM_CRB_DIR_00042287 ([[redacted]]) (SX EX. 329-RR); SXM_CRB_DIR_00055280-81 (SX Trial Ex. 17) (email from Trent Smith to Karyn Ulman and Ronald Gertz listing "Sirius XM—SUMMARY OF MAIN 'SELLING POINTS' TO LABELS"); 6/7/12 Tr. 862:9-863:6 (Gertz); 6/15/12 Tr. 2567:4-2568:14 (Van Arman).

52. Establishing direct marketing and direct accounting relationships is an important part of the licensing business for other reasons. Airplay on a service such as Sirius XM, when executed in conjunction with targeted and focused promotions within a defined period of time and orchestrated within the context of the label's matrix of marketing and promotional initiatives, also increases the possibilities of increased sales and income through other distribution channels. Too much airplay, or airplay at the wrong times or uncoordinated with other promotional activities, might cannibalize sales in other channels. It is in the interests of a record company, therefore, to have a relationship with a digital distribution channel so that it can control and focus, as much as possible, any airplay that is intended to be promotional. Large record companies have marketing and promotional staffs for this purpose, but small independent labels do not, and a direct license might provide a useful line of communication in this regard. Moreover, a well-orchestrated and controlled placement on Sirius XM might be especially enticing for a small label that does not have the marketing and promotion budget of a bigger label and cannot pay for other forms of promotion.[8]

[8] This motivation might be particularly strong for independent labels that have so-called "360 deals" with their artists, wherein the label shares in ancillary revenue streams, such as concert ticket sales and merchandise. These

53. The opportunity to leverage a direct licensing relationship in this fashion is illustrated by the negotiations conducted between Sirius XM and [[redacted]]. [redacted] *See* SXM_CRB_DIR_00087092 (SX Ex. 332-RR).

54. The direct licensing relationship also affords an independent label an element of contractual privity with Sirius XM. Amongst the rights obtained were direct audit rights – i.e., the ability to examine the books and records of the broadcaster – at-source – to ensure the accuracy of the accountings first-hand. SXM Trial Ex. 14, Ex. 7, 3(b). Generally speaking, audits can provide insightful information about the business operations of a licensee, in addition to validating the completeness of the royalty reports. Direct access to these data points is something that a record label might find attractive, as compared to otherwise relying upon the findings of an industry-wide audit conducted by a performance rights organization such as SoundExchange. *See* 37 C.F.R. § 382.15.[9]

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deals, which are significantly more common at independent labels than at the majors, make the royalty rates on digital platforms less important because of the additional revenue streams available to the label.

[9] Notably, the direct license audit rights rest exclusively with the record label, in contrast to the audit rights under the statutory license which allow SoundExchange to conduct an audit on behalf of copyright owners *and* performers and also permits copyright owners and performers to audit SoundExchange. 6/7/12 Tr. 926:7-927:21 (Gertz). This is an aspect of the direct license that could have material impact on certain artists who will be unable to accurately trace royalties that they may be owed by Sirius XM. For example, in the statement MRI sent the direct licensor Magnatune for plays of its tracks on Sirius XM during the fourth quarter of 2011, it is clear that the label was paid several thousand dollars for plays of [[redacted]

D. Knowledge of the Statutory Rates and Process

55. The direct licensing negotiations were not conducted in a vacuum. MRI's standard initial email informed labels about the current statutory rate—7.5% if the initial email was sent in 2011 and 8% if the initial email was sent in 2012. *See, e.g.*, SXM_CRB_DIR_00042378 ([[redacted]]) (SX Ex. 336-RR); SXM_CRB_DIR_00028072 ([[redacted]]) (SX Ex. 337-RR). If confronted with reports that the rate was scheduled to go up in 2012 or that a new rate would be set starting in 2013, MRI would not deny these facts, but rarely did it volunteer this information on its own. *See, e.g.*, SXM_CRB_DIR_00054871 ([[redacted]]

[redacted]]. *See* SXM_CRB_DIR_00088833 (SX Ex. 333-RR); SXM_CRB_DIR_00088799 (SX Ex. 334-RR). Magnatune does not own any of those tracks, but its catalog does apparently contain masters by another [[redacted]], whose music is described on the Magnatune website as "[[redacted]]." *See* [[redacted]] (SX Ex. 335-RR). When MRI makes reporting mistakes like these—and Sirius XM does not report purportedly directly licensed content to SoundExchange—the labels that own the masters and the featured artist who should have been paid have no way of discovering that they are owed royalties, much less any way to audit Sirius XM or MRI, with which they have neither a statutory nor a contractual relationship.

[redacted]]) (SX Ex. 338-RR); SXM_CRB_DIR_00046614 ([[redacted]]) (SX Ex. 339-RR); SXM_CRB_DIR_00040995 ([[redacted]]) (SX Ex. 340-RR); SXM_CRB_DIR_00055365 ([[redacted]]) (SX Ex. 341-RR). Unless these labels had some reason to know the ins and outs of how this Court sets the statutory rate, their agreement to accept a 7 percent rate, for example, reflected simply an assessment that Sirius XM was offering benefits worth a .5 percentage point or 1 percentage point reduction in the statutory rate, and did not reflect any assessment of what the correct statutory rate should be for the upcoming rate term.

56. I believe it is unlikely that the independent labels that signed direct licenses had any real appreciation or understanding of the rate setting process in this Court, or any ability to predict its outcome. That is not to suggest that the decision-makers at these labels are unsophisticated or poor business men and women. But the bigger record companies have lawyers and executives whose principal job it is to negotiate digital deals and understand the workings of the rate-setting process. Small independent labels simply do not have the resources to dedicate to these functions. In fact, small labels often outsource the deal-making to the majors, or to aggregators.

57. Highlighting this fact, over 20 of the 78 direct licensed labels that I am aware of had not even registered with SoundExchange at the time they accepted the direct license. In other words, although they may have been entitled to receive royalties from SoundExchange, their knowledge of this area was so lacking that they did not know to sign up. And since they had not been distributed *any* SDARS royalties heretofore due to their inaction, the direct-deal licenses offered by Sirius XM – even at a discount to the SDARS rate – represented an immediate improvement over the status quo ante.

58. Other evidence that independent labels did not understand the statutory license can be found in some of the emails surrounding the negotiations. For example, one of the labels, 101 Records, sent an email asking Sirius XM [[redacted]]. SXM_CRB_DIR_00050809 (SX Ex. 342-RR).

59. Moreover, the labels that took the direct license might very well have left money on the table because although Sirius XM proposed to pay them under the direct license for non-

interactive webcasting, business establishment services and cable satellite services at the same 5 percent to 7 percent rate being applied to SDARS service revenues, there exist statutory rates for those services that are either higher (10 percent and 15 percent of gross revenues, respectively for the business establishment services and the cable satellite services) or feature fundamentally different payment metrics (the per-performance rate for webcasting). *See* 37 C.F.R. § 384.3(a); 37 C.F.R. § 383.3(a); 37 C.F.R. § 380.3(a)(1). It is unclear why labels would have accepted a lower rate for these services unless they simply did not know what the statutory rates were, although MRI may have contributed by focusing the vast majority of its negotiating efforts on the comparison of the SDARS rate to the direct license rate and occasionally misrepresenting the role that the revenue from the additional services plays in the direct license. *See, e.g.*, SXM_CRB_DIR_00054871 ([[redacted]]) (SX Ex. 338-RR).

60. Mr. Gertz has stated that the independent labels who accepted the direct license are very sophisticated. 6/7/12 Tr. 856:7-857:18 (Gertz). Perhaps in other respects they are, but with respect to the statutory rate-setting process, other testimony by Mr. Gertz undermines his claim. "A lot of labels," he said, "simply aren't into the detail of the statutory license. And they may know that – that there's a statutory license, but they didn't know that – or weren't completely familiar with the fact that certain activities aren't covered under the statutory license, and they need to be approached directly, nor did many of them know that they had the ability to do a voluntary license around the statutory license and what their obligations were, then, back to the artist." 6/7/12 Tr. 850:3-12 (Gertz). MRI, therefore, initiated a "dialogue on educating the labels

about what their rights were." 6/7/12 Tr. 850:13-15 (Gertz). This need for an educational campaign by MRI confirms that the independent labels had little knowledge about the regulatory process, and it is a safe bet that MRI's educational materials did not include a chapter on why the rate should materially increase.

Indie Business Models

61. Some independent labels may have particularized motivations to accept a lower rate that would not apply even to other small independents, much less to bigger record companies.

62. One example of catalog-specific motivations for direct licensing can be found with labels that feature large volumes of "re-records" of popular tracks. K-Tel has signed a direct license, and Mr. Gertz's written testimony proffered the example of K-Tel as the heritage label of the key artist, Chubby Checker. But as Mr. Gertz later acknowledged, K-Tel does not own the rights to all of Chubby Checker's recordings. 6/7/12 Tr. 917:2-13 (Gertz), and in fact, the artist's original and most famous sound recordings were released on the Cameo-Parkway label, not on K-Tel, for which he re-recorded the original songs with different musicians decades after the release of the seminal hits.

63. The other direct licensed label that relies heavily on re-records and that features prominently in Sirius XM's case is Cleopatra Records. Various Sirius XM witnesses cite to the band L.A. Guns, which is featured in Sirius XM's heavy metal rotation. *See* Written Direct Testimony of Steven Blatter at 6 (SXM Dir. Trial Ex. 15); Gertz CWDT at ¶ 15. Much like Chubby Checker on K-Tel, the L.A. Guns recordings on Cleopatra are primarily re-records.

64. Generally speaking, even where an original artist re-records his or her works, the original version remains the preferred version in the marketplace. *See* All Music Guide, Chubby Checker – K-Tel Greatest Hits, http://www.allmusic.com/album/k-tel-greatest-hits-mw0000674057 (explaining in a review of Chubby Checker's Greatest Hits album released on K-Tel featuring re-

records of his hit songs, that "you're wasting your time and money by picking this set. What you need are the original versions") (SX Ex. 343-RP); *see also* All Music Guide, Chubby Checker – The Very Best of the K-Tel Recordings, http://www.allmusic.com/album/the-very-best-of-the-k-tel-recordings-mw0000016475 (noting that "[t]here's something kind of counterfeit about Chubby Checker's K-Tel catalog" and that "this guy's discography is like a hall full of mirrors") (SX Ex. 344-RP). The same holds true for the L.A. Guns re-records. *See* All Music Guide, L.A. Guns – Greatest Hits & Black Beauties, http://www.allmusic.com/album/greatest-hits-black-beauties-mw0000667084 (stating that "some of the re-recordings find vocalist Phil Lewis straining to hit higher notes, sometimes even altering the melodies to compensate for his diminished vocal range" and concluding that consumers should "avoid this one") (SX Ex. 345-RP).

65. Labels that specialize in re-records have unique business incentives to accept a direct license, because they want to want to re-direct plays of popular original recordings to the generally less attractive re-recorded versions of songs. These labels would almost certainly agree to a lower nominal rate in the hopes that Sirius XM's programmers substitute their re-records for the otherwise preferable original masters.

66. A different issue arises for some of the direct licensed labels that appear to control catalogs featuring primarily recordings that were made prior to 1972. For example, one of the direct license labels is Grammercy Records. Based on the catalog of recordings displayed on Grammercy's website, it appears to specialize almost exclusively in compilations of old recordings of famous Jazz and Blues artists, such as Dizzy Gillespie and Bing Crosby. *See* http://www.grammercy.com/app/albums/search/&genre=Jazz (SX Ex. 346-RP). Another example is the direct license label, HLC Properties, which was described by MRI to Sirius XM as "[[redacted]]," and which was approached with a direct license offer, in

part, because "[[redacted]]." SXM_CRB_DIR_00046158 (SX Ex. 347-RR). As has been explained by other witnesses, Sirius XM does not pay royalties under the statutory license for these so-called "pre-72" recordings. Sirius XM and MRI were apparently uninterested in determining whether the labels signed and/or approached actually controlled recordings for which Sirius XM would otherwise pay for under the statutory license.[10] Labels with pre-72 recordings who were aware that they will not be paid royalties under the statutory scheme could have been well incented to seize upon the opportunity to receive *any* Sirius XM royalties, irrespective of the inferior rate.

Conclusion

67. Sirius XM's campaign to convert SoundExchange licensees from the statutory license to the direct license was unsuccessful in attracting but a small sliver of the sound recording copyright holders. For those small market share labels accepting the offer – many of whom apparently were not even registered with SoundExchange to receive their due entitlement to Sirius XM royalties in the first instance – the surrounding circumstances are less reflective of the appropriateness of the "headline rate" in the direct license than the perceived benefits of a smaller label's direct relationship with Sirius XM, to wit, a higher Label Net Rate (at the expense of performers), advances and increased cash flow, meaningful marketing contacts with the broadcaster, and the lure of more "plays" (and hence increased royalties) for labels that heretofore had few or none.

[10] In fact, Mr. Gertz explained that when MRI conducted its analysis of plays on Sirius XM, it did not "look at the copyright protection issue at that point," and did not know how much of the market share being assigned to a given label was as a result of pre-72 sound recordings. 6/7/12 Tr. 834:13-835:1 (Gertz).

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

Date: July 2, 2012

Mark Eisenberg

<u>Exhibits Sponsored by Mark Eisenberg</u>

Exhibit No.	Description
SX Ex. 301-RR	Native Spreadsheet, Sirius XM Label Licensing Status Report (SXM_CRB_DIR_00089871)
SX Ex. 302-RR - SX Ex. 315-RR; SX Ex. 319-RR; SX Ex. 329-RR - SX Ex. 330-RR; SX Ex. 332-RR; SX Ex. 336-RR - SX Ex. 342-RR	Negotiating Emails between MRI and Record Labels
SX Ex. 316-RR	All Music Guide -- Music Biography, Credits and Discography of musical group, the identity of which has been designated Restricted by Sirius XM
SX Ex. 317-RR	New York Times article regarding record label, the identity of which has been designated Restricted by Sirius XM
SX Ex. 318-RR	Law Journal Article regarding business practices of record label, the identity of which has been designated Restricted by Sirius XM
SX Ex. 320-RR - SX Ex. 328-RR; SX Ex. 331-RR	Direct Licenses and related agreements between Sirius XM and Record Labels
SX Ex. 333-RR	MRI Royalty Calculation Summary for Magnatune, 2011 Q4 (SXM_CRB_DIR_00088833)
SX Ex. 334-RR	MRI Royalty Calculation Track Listing for Magnatune, 2011 Q4 (SXM_CRB_DIR_00088799)
SX Ex. 335-RR	Magnatune Website description of particular artist
SX Ex. 343-RP	K-Tel Greatest Hits - Chubby Checker Overview (AllMusic)
SX Ex. 344-RP	The Very Best of the K-Tel Recordings - Chubby Checker Overview (AllMusic)
SX Ex. 345-RP	Greatest Hits & Black Beauties - L.A. Guns Overview (AllMusic)
SX Ex. 346-RP	Grammercy Records Website on Grammercy Jazz
SX Ex. 347-RR	Email from K. Ulman to C. Greer, P. Donnelly and D. Frear (SXM_CRB_DIR_00046158)

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AREAS OF EXPERTISE:

- Digital Media (multi-platform content licensing, distribution, sales and marketing)
- New Business Ventures and Strategic Alliances (linking premium content with distribution partners)
- Acquisition of Entertainment Properties (talent/performers, brands)
- Corporate Management (global department head; fluid communication with C-level management)

PROFESSIONAL EXPERIENCE:

LatticeWorks Media, NY, NY Oct. '10 - Present
Co-Founder, COO

Co-Creator and principal of LatticeWorks Media, a uniquely positioned digital media holding company which develops, incubates and operates collaborative-community properties distinctively designed for social media access and distribution. 3 properties in "beta" deployment traversing the areas of e-commerce, crowd-sourcing and diversionary entertainment. In addition, LatticeWorks provides an array of new media consulting services, specializing in strategic, transformative business paradigms.

SONY MUSIC ENTERTAINMENT, NY, NY 1994 – Sept. '10

Global Digital Business Group, Executive Vice President & Head of Business and Legal Affairs 2006 – Sept. '10

Leading the world's second largest music company in worldwide negotiations and deal-making for the global digital distribution of audio sound recordings, audiovisual performances and artist-branded merchandising properties. Development and implementation of leading-edge rights acquisition and distribution strategies to maximize commercial returns in digital media.

- Member of executive management team spearheading the development of the company's digital business growth, from a fledgling R & D department to a core revenue-producing distribution arm for the multiple content and repertoire centers. Turnover approaching $1 billion in global sales.

- Key strategic relationships and groundbreaking new media deal structures developed with marquee technology, CE and distribution partners. Diversified matrix of alternative business models launched, including: Consumer-Pay / Ala Carte Transaction-Based Commerce; Subscription-Based Premium Access; Bundled (Utility-Styled) Premium Access; and Ad-Supported Discovery Access.

- Strategic distribution partnerships include the likes of:

  Apple (iTunes), Spotify, Facebook, Google, YouTube, Joost, Viacom, MySpace, AOL, Mobi-TV, VEVO, NBC, Microsoft, Amazon, Yahoo, Walmart, Verizon, AT&T, Sprint, T-Mobile, Nokia, Sony Ericsson, Motorola, Research in Motion (Blackberry), Vodafone, Hutchison, Orange, Live Nation, CBS, Last FM, Clear Channel, Real Networks, Pepsico and Honda.

- Company designee in music industry trade association's (RIAA) strategy, policy and business negotiations relating to statutory licensing rates and terms for Internet Radio / Webcasting, Satellite Radio, and Mechanical Royalties.

  Provided written and live testimony at several congressionally-sanctioned royalty tribunals held at the Library of Congress in 2005, 2006, 2007 and 2008, including:

  Digital Performance Right in Sound Recordings (Webcasting), 2005 CRB DTRA
  Satellite Digital Audio Radio Services (SDARS), 2006 CRB DSTRA
  License Rates for Making and Distributing Phonorecords (Mechanical Royalties), 2006 CRB DPRA

Prior Positions at Sony Music Entertainment:

Senior Vice President, Global Digital Business Group	*2004 – 2006*
Senior Vice President, New Technology & Business Development	*2002 – 2004*
Vice President, New Technology & Business Development	*1998 – 2000*
Director, Business Affairs	*1996 – 1998*
Counsel	*1994 - 1996*

550 DIGITAL MEDIA VENTURES, NY, NY April '00 - Sept. '01
Senior Vice President and General Counsel

Occupied positions of General Counsel and Head of Content Acquisition/Distribution Strategies for M&A-focused deal-making and business development activities. 550 DMV, a wholly-owned subsidiary of Sony Corp. of America, was developed and launched as Sony's venture capital investment company and digital media incubation facility.

GOLD FARRELL & MARKS, NY, NY Sept. '90 - July '94
Associate

Experience in federal and state courts in the substantive areas of licensing literary properties and musical compositions: recording artist and production agreements; television and motion picture agreements; copyright and trademark laws; general commercial disputes including those involving defense of newspaper's First Amendment rights against criminal prosecution; employment and labor agreements; corporate counseling; NYSE securities arbitration.

WILLKIE FARR & GALLAGHER, NY, NY Sept. '88 - Sept. '90
Associate

Federal and state litigation in the areas of securities, banking, insurance, general commercial disputes and sports. Representation of Major League Baseball in a variety of matters including Commissioner Bart Giamatti's investigation of Cincinnati Red legend Pete Rose's illegal sports wagering; and the 1985 and 1986 free agency collusion grievances.

Digital Media Panels & Participation

Active involvement in digital media conferences, panels and forums. Recent speaking engagements include: *PLI's Technology and Entertainment Convergence 2011; CMJ Music Marathon & Film Festival, "Start-Ups and Digital Distribution"; Digital Music Forum East (sponsored by the Consumer Electronics Association), "Online Video and Music"; Association of Independent Music Publishers, "Future of Mobile Music"; Virginia Sports and Entertainment Symposium (sponsored by Univ. of Va.), "Content Distribution in the Digital Age".*

EDUCATION:

NEW YORK UNIVERSITY SCHOOL OF LAW, NY,NY J.D., May '88

Distinctions:	Annual Survey of American Law, *Articles Editor, 1987-1988; Editorial Staff, 1986-1987* William Miller Memorial Award (outstanding scholarship in municipal law)
Publication:	"The Vicarious Liability of Government Entities," 1987 Annual Survey of American Law 637

BRANDEIS UNIVERSITY, Waltham, MA B.A., May '85

Major:	Political Science
Distinctions:	Summa Cum Laude, High Honors Phi Beta Kappa

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

REBUTTAL TESTIMONY OF

DAVID PEARLMAN

President, Pearlman Advisors, LLC

PUBLIC VERSION

Witness for SoundExchange, Inc.

REBUTTAL TESTIMONY OF DAVID PEARLMAN, PEARLMAN ADVISORS, LLC

BACKGROUND AND QUALIFICATIONS

1. My name is David Pearlman and I am President of Pearlman Advisors, LLC. I have been engaged by SoundExchange to serve as an expert witness in regard to the Copyright Royalty Board proceeding involving the statutory royalty rate for Sirius XM's satellite radio service, which is currently before this Court.

2. I am a magna cum laude graduate of Boston College with a BS degree in Marketing and earned an MBA in Marketing/Finance from Boston University. I have spent my career in the Radio business.

3. Over the course of nearly four decades, I have done virtually every job in broadcasting from on-air to production to sales to local management to group head to owner. In particular, I was the owner, operator and co-founder/Co-Chief Operating Officer of a major broadcasting group, American Radio Systems, which grew from a leading edge consolidator to publicly traded entity to the nation's 4th largest broadcaster before ultimately selling to CBS for a then record enterprise price of $2.4 billion. As the Co-Chief Operating Officer of the company, I was directly responsible for seven major markets while also working with other members of senior management on the creation and implementation of its corporate strategic plan. During that tenure, American Radio Systems organized what was later to become a standalone publicly traded entity American Tower Corporation (AMT).

4. Upon the sale of the Radio stations to CBS, those tower-related interests were spun off to then existing American Radio Systems shareholders and today it is one of the largest

communication tower companies in the world. During that start-up period and later as a significant shareholder in AMT, I had exposure to the workings of the tower business and its service to the communications industry.

5. After the sale to CBS, I served for the next 4 ½ years as the Co-Chief Operating Officer/Senior Vice President of CBS Radio/Infinity Broadcasting. I had direct responsibility for over $400 million in revenue and over $170 million in cash flow while overseeing markets throughout the Top 50 metros in the country. I was also formerly elected the Chairman of the Arbitron Advisory Council, which is the industry's watchdog organization on Radio ratings and served as the former Vice Chairman of RAB that deals with all revenue related issues in the business.

6. For the past 8 years, I have provided consulting services to the sports and media industries under the umbrella of Pearlman Advisors LLC. I primarily deal with senior level managers, CEOs and Boards of Directors of companies seeking to improve market positions, develop and implement new products, create strategic shifts, assess and train management personnel or that simply want an outside expert view of their total operations. A major topic of concentration is the emergence of new media and how best to utilize this growing resource. The clients we deal with represent some of the best-known brands in the business, including traditional broadcasters like Entercom, emerging companies such as Tough Mudder and professional baseball teams like the Oakland A's.

7. Additionally, I am represented by the Gerson Lerman Group (GLG). With a roster of 150,000 subject matter consultants/experts encompassing all types of disciplines, they are the world's largest supplier and I rank in the top 8% nationally in terms of usage and customer satisfaction. I have been engaged by them for hundreds of consultations with

financial institutions, hedge funds, investment companies and others who want access to a top expert on media-related topics.[1]

8. Having participated in and studied the market for Radio for decades, and consulted on media-related topics, including the advent of new media, I believe I am well-positioned to assess the competitive strengths and weaknesses of Satellite Radio versus Internet Radio.

OVERVIEW AND EXECUTIVE SUMMARY

9. SoundExchange has asked me for an expert analysis of the competitive effect of Internet Radio on Sirius XM, particularly concerning the market for listeners in the car. My analysis extends through the year 2017, which I understand to be the end of the rate period under consideration by this Court. I have reviewed the testimony of Sirius XM's witnesses who testified about the threat posed to Sirius XM by Internet Radio in the car. Having undertaken my analysis, I must respectfully disagree with many of the opinions and prognostications that have been submitted by Sirius XM's witnesses in this dispute to date. Sirius XM executives and witnesses have painted a picture of a company headed into a tailspin at the hands of Pandora, iHeart Radio, Slacker, Spotify and every other emerging competitor in the audio content delivery space. Sirius XM's statements in this proceeding that Internet Radio is "life-threatening" to Satellite Radio are simply incorrect, and strike a markedly different tone from those it has made to its shareholders. The reality

[1] I have filed reports in two litigation matters where I was retained as an expert, both of which terminated before I was deposed or gave oral testimony. Those cases are Clear Channel Investments v. XM Satellite Radio Holdings, Inc (2006) (filed expert affidavit on behalf of Clear Channel Investments) and Cobalt Operating, LLC vs. James Crystal Enterprises, LLC (2006) (filed expert witness report on behalf of Cobalt Operating, LLC).

is that Sirius XM has prospered as Internet Radio has grown, and it will continue to prosper going forward.

10. With respect to the current state of the market, the facts are that Sirius XM has done a great job of developing a business in the radio space that continues to grow in subscribers while posting extraordinary record-setting bottom line performances for its shareholders. And this growth in subscribers and dollars has taken place during *the very period* that its expert described as the time when Internet Radio came into its own. Sirius XM has flourished, not diminished (let alone died) during the growth of Internet Radio.

11. Looking ahead, the future is even brighter. I would not dispute that Internet Radio will be a source of competition for Sirius XM through 2017. But I would strongly dispute that Sirius XM's growth and profitability is seriously threatened by Internet Radio. One straightforward way of seeing this is that, as I discuss in depth below, Sirius XM itself has stated over and over again that it expects to prosper in the future. And I note that Sirius XM's expert, Mr. Rosenblatt, conceded upon questioning that Sirius XM is not the "block ice" industry destined for obsolescence, but rather is like the cable industry—a service that has continued to prosper even as it has faced competition from other video entertainment services, like FIOS.[2]

12. I see four clusters of reasons why Sirius XM will continue to experience success even as Internet Radio likely grows.

- *First*, Sirius XM's economics are such that it can be – and is – an extremely profitable company without having a majority (or anything close to a majority) of the market for audio entertainment. Sirius XM's 22.3 million subscribers[3] today are dwarfed by the number of Americans who listen to AM/FM radio in the car, but that does not mean that the company is unprofitable. Far from it, Sirius XM's

[2] 6/8/12 Tr. 1094:18-1096:7 (Rosenblatt).

[3] Form 8-K filed by Sirius XM Radio Inc. for the period ending 5/22/12 including presentation slides for 2012 Annual Meeting of Stockholders (SX Ex. 211-RP), at 11.

subscribers have given Sirius XM hundreds of millions of dollars of profit this year, and will provide even more going forward. And relatedly, there is a demand for Sirius XM's music programming that Internet Radio does not satisfy well. Sirius XM's expert Mr. Rosenblatt conceded that Sirius XM's product is distinctive and attractive to consumers,[4] and Internet Radio services, which often are not commercial-free and/or lack programmed content, are not a good substitute for the commercial-free channels that Sirius XM offers.

- *Second*, Sirius XM enjoys an unmatched OEM distribution system for its product. Having entered into OEM deals several years ago, Sirius XM is now available in the dashboard of 2/3rds of the cars rolling off the line today. Conversely, the vast majority of cars on the road today that allow Internet Radio require the consumer to manipulate a smartphone while driving, a practice that is cumbersome, dangerous, and, in some states, illegal. Going forward, Sirius XM will continue to be installed at higher rates than in-dash Internet Radio. The result is that by 2018 there will be 100 million cars with Sirius XM installed, and perhaps only 30 million with in-dash Internet Radio.[5]

- *Third*, Internet Radio is limited by the cellular network on which it runs. Sirius XM has recognized what is an undeniable fact: 3G technology is not well-suited for mass streaming of audio content. Not only are there holes in the service where 3G coverage is not available (a fact that should be apparent to most people who have used a smartphone), but the system can be overwhelmed by the number of people using the service. 4G technology is more capable, but it is not rolled out in the vast majority of the country at this point.

- *Fourth*, Sirius XM makes much of the fact that many Internet Radio services are "free" in the sense that they do not charge consumers a separate fee to use the service. Those services, however, do require consumers to pay for a data plan with their cellular phone company. And cellular phone companies are jettisoning their unlimited data plan options precisely because high-data volume applications like Internet Radio are uneconomical for the cellular companies. Streaming even an hour of music a day requires a data plan costing around $30 dollars per month, a price point that compares quite unfavorably with Sirius XM's service.[6]

13. The bottom line is that from now through 2017, Sirius XM has a distribution and programming advantage that will allow the company to continue to grow its revenue and profits.

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[4] 6/8/12 Tr. 1094:18-1095:17; 1096:1-4 (Rosenblatt).

[5] *See infra* at ¶¶ 39-43.

[6] *See infra* at ¶¶ 52-57.

ANALYSIS

PART I: BACKGROUND ON TERRESTRIAL RADIO, SATELLITE RADIO, AND INTERNET RADIO.

14. In order to understand the current state and future of competition between Satellite Radio and Internet Radio, one must understand some basic facts about the Radio industry as a whole. I therefore provide some basic background about Terrestrial Radio, Satellite Radio, and Internet Radio in this section.

A. Radio's Evolution

15. The commercial Radio business has been around since 1920 when the earliest distributions were on the AM dial to the select few who had receivers that could consume those early offerings. The medium exploded in the ensuing decades to become a major source of local news and music programming as local stations were built in the nation's communities both large and small. The 1970's produced a quantum growth of FM, which offered superior stereo signal quality for its listeners. Currently, in most major markets across the country, about 80% of Terrestrial Radio is consumed on that band.

16. Today, as relevant here, Terrestrial Radio faces competition from both Satellite Radio and Internet Radio. Against the setting of all of these cumulative competitive attacks, total radio listening last month reached a record 93% of the population totaling an impressive 242 million people,[7] and radio generated $17.4 billion in advertising revenues during 2011.[8] As I discuss below, Terrestrial Radio is still the single most dominant source of audio entertainment in the car, but Satellite Radio is growing and highly

[7] *242.1 Million Persons Aged 12+ Tune To Radio Each Week Says RADAR Report*, AllAccess.com, June 12, 2012 (available at http://www.allaccess.com/net-news/archive/story/107054/242-1-million-persons-aged-12-tune-to-radio-each-w).
[8] *Radio Ads Are Coming Back, and the Presidential Run Will Help*, The New York Times, February 19, 2012 (available at http://mediadecoder.blogs.nytimes.com/2012/02/19/radio-ads-are-coming-back-and-the-presidential-run-will-help/).

profitable, even with a market share that is less than Terrestrial Radio. That trend will continue going forward.

B. Sirius XM's Position

17. Satellite Radio has been marketed to the nation's Radio consumers for over 11 years and since 2008 as the merged entity of Sirius XM. As a mainly subscriber-based business the company offers a unique brand of programming that has generated a loyal base of customers who are seeking a different kind of Radio listening experience.

18. While the traditional terrestrial station offers a particular genre of music, it is surrounded by elements that include local news, weather, sports and traffic information hosted by a personality rooted in that respective community. A typical format features highly targeted music selections that are geared for a specific target audience. Each format from country to top 40 appeals to different segments of the population. Since the business model is based on the sale of commercials, a portion of each broadcast hour is sold to advertisers to market their products.

19. Conversely, Sirius XM runs all of its various music formats commercial-free. A partisan of rock or contemporary hits or show tunes or any of the other multitudes of music offerings can enjoy their favorites without any commercial interruption. The breadth of Sirius XM music offerings, which are targeted to appeal to distinct demographics, combined with its commercial-free nature, gives Satellite Radio an advantage that terrestrial stations can never match.

20. Sirius XM has been well integrated in the car since its creation because the company gained OEM deals with almost all of the major carmakers from Toyota to Ford to Mercedes to GM to Chrysler. Today, the majority of Sirius XM subscribers listen to

the service via radios installed in their cars at the time of manufacture. According to Sirius XM's own data, [[redacted]]% of cars on the road in 2010 had a satellite radio installed,[9] and a full 67% of the new cars sold in 2011 had a satellite radio.[10] Sirius XM expects to continue to install its radios in cars at roughly this rate through the rate term. For example, Sirius XM projects that [[redacted]]% of all cars on the road will have Sirius XM radios by 2016.[11] Sirius XM's long-standing OEM agreements give it a substantial head start in penetrating the automobile market relative to Internet Radio.

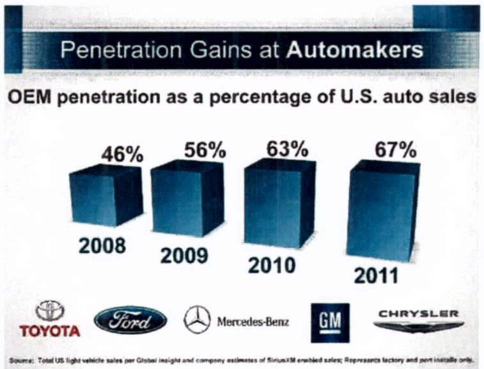

Figure 1: Sirius XM has been installed in an increasing number of cars to date[12]

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[9] *Sirius XM Executive Offsite: Competitive Assessment May 2011*, SXM_CRB_DIR_00001807 (SX Ex. 212-RR), at 10.
[10] SX Ex. 211-RP, at 33.
[11] SX Ex. 212-RR, at 10.
[12] SX Ex. 211-RP, at 33.

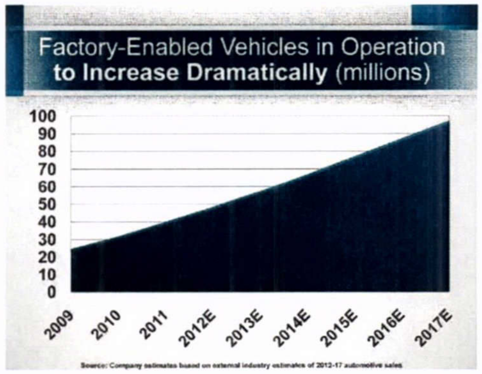

Figure 2: The number of cars on the road with Sirius XM is already substantial and will dramatically increase between now and 2017[13]

21. Armed with an unmatched, commercial-free music message, a full menu of other unique programming content, and agreements with car manufacturers that put its devices in the majority of new cars rolling of the assembly lines every year, Sirius XM has amassed a subscription base of 22.3 million and the company expects that number to reach 23.4 million by the end of the year.[14]

C. Internet Radio

22. While the Radio industry is attracting record numbers of total listeners, it is doing so within a dramatically changing landscape of exactly where and how they consume the product. Internet Radio has become another important part of the market. According to the 2012 Infinite Dial Study fielded by Arbitron and Edison Research, 29% of the population or 76 million people listen to Internet Radio per week, which is up almost 32% over last year and up 70% in two years.[15]

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[13] SX Ex. 211-RP, at 34.
[14] SX Ex. 211-RP, at 10-11.
[15] *The Infinite Dial 2012: Navigating Digital Platforms*, at 20 (available at http://www.arbitron.com/study/digital_radio_study.asp).

23. While there are many companies vying for a piece of the Internet Radio pie, there are only a handful of players that have burst to the front of the pack and each has a very differing plan of attack within the space:

- *Pandora.* Pandora is an Internet Radio service employing both advertising-based and subscription-based business models that offers its consumers a personalized music experience based on their likes and choices. According to the company, listener hours reached an impressive 1.10 billion in May, which was 87% higher than a year ago. Active listeners totaled 53.3 million at the end of May, which was up 52% from the same period last year.[16]
- *IHeart Radio.* Owned by the nation's biggest Radio company, they stream more than 1,000 advertising-based stations, including 850 of their own. iHeart also offers its consumers a Pandora-like personalized option as well.[17]
- *Spotify.* A Swedish music service primarily offering on-demand streaming that has a huge following outside of this country and is now unleashing a major rollout in the United States. The business model includes advertising and a subscription option that eliminates ads with unlimited access to its vast music library for computers and various mobile products.[18]

24. The current key to Internet Radio in the car is the smartphone. Broadly speaking, there are two primary ways in which a smartphone can be used to play Internet Radio in a car. In the first, the smartphone serves both as the method for receiving the audio stream and for controlling the playback. In this configuration, the smartphone is either connected to the car's audio system via a physical cord or via a wireless connection like Bluetooth. Audio is streamed to the smartphone over a cellular network, and the listener controls what he or she is listening to by manipulating the smartphone.

25. In the second, more advanced method, the smartphone again serves as the conduit for the data, but the user controls what he or she is listening to via an in-dash system. A digital dashboard simply puts the controls that are normally operated on your smartphone

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[16] *Pandora Announces May 2012 Audience Metrics*, June 6, 2012 (available at http://investor.pandora.com/phoenix.zhtml?c=227956&p=irol-newsArticle&ID=1702994&highlight=).
[17] *iHeartRadio Reaches 10 Million Registered Users in Just Eight Months*, The Wall Street Journal Marketwatch, May 17, 2012 (available at http://www.marketwatch.com/story/iheartradio-reaches-10-million-registered-users-in-just-eight-months-2012-05-17).
[18] *What is Spotify* (available at http://www.spotify.com/us/about/what/).

into the car's system – through it, you can access and play an Internet Radio service through your automobile's sound system.

26. Many cars on the road today are capable of using the first method to play audio content on a car stereo. But relatively few have the in-dash capability that allows the user to choose audio content via a digital dashboard. This year, only 8.4% of new cars will have some sort of in-dash control for Internet Radio,[19] compared to [[redacted]]% of new cars that will be equipped with in-dash Satellite Radio.[20] Examples of in-dash Internet Radio cars include among others, the Ford Sync, Toyota Entune and MyLincoln Touch.

27. While the automobile manufacturers are working towards an in-auto wireless data connection that will not require a smartphone, it is still several years away from enactment. Verizon and others are in discussions about creating cellular plans that would be ultimately sold to car buyers to activate the future version of the digital dashboard.[21] Today, it depends completely on each listener's cellular plan, which ultimately provides the web access for the in-dash system. The cost of that service is based on the provider and terms of the individual's contract. One fact is undeniable - it will cost the consumer a significant amount of money per month to use the new in-car technology. It is far from a free service.

PART II: INTERNET RADIO HAS BEEN HERE FOR YEARS, AND SATELLITE RADIO HAS JUST KEPT GROWING

[19] Estimate provided by Myles Kitchen. *See infra* at ¶ 42.
[20] *Sirius XM 2011 Baseline LRS 8/30/11*, SXM_CRB_DIR_00031738 (SX Trial Ex. 9), at 4.
[21] Note, however, that some automakers have resisted this model of smartphone integration. *Verizon Wants to connect Cars Directly to Web, But Detroit May Prefer Relying on Smartphones*, Radio and Internet Newsletter, June 2011 (available at http://www.kurthanson.com/category/issue-title/rain-611-verizon-wants-connect-cars-directly-web-detroit-may-prefer-relying-sma).

28. The central claim of Sirius XM's testimony is that Internet Radio poses a "life-threatening" danger to Satellite Radio.[22] I would not dispute that Satellite Radio and Internet Radio compete, and will continue to compete, with each other. But the notion that Internet Radio poses a "life-threatening" danger to Satellite Radio is not remotely supported by the evidence.

29. A primary flaw with the argument that Internet Radio poses a substantial danger is that Internet Radio has been available in cars and trucks for several years now, and Sirius XM's subscribers, revenues, and profits have only increased during this time. Mr. Rosenblatt describes a "technology transition" that began "in 2007-2008 and ended by 2010" in which Internet Radio became more prominent, smartphones became more capable, and cars provided more Internet Radio integration.[23] Mr. Rosenblatt opines that over 90% of new cars already had some sort of Internet Radio connectivity by 2009, and he says that in 2010, Internet Radio achieved a "critical mass" in the car.[24]

30. Lining up that technology "transition" next to Sirius XM's performance is instructive. In the period between 2008 and 2012, Satellite Radio has become dramatically more popular and profitable. In particular, in the period after 2010 when Internet Radio supposedly reached a critical mass, Satellite Radio has continued to grow.

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[22] *Corrected Written Direct Testimony of William R. Rosenblatt* (SXM Dir. Trial Ex. 17), at 4.
[23] SXM Dir. Trial Ex. 17, at 6-8.
[24] SXM Dir. Trial Ex. 17, at 37-39. Note, however, that Mr. Rosenblatt cites conflicting sources for this statistic and fails to define what constitute "a critical mass."

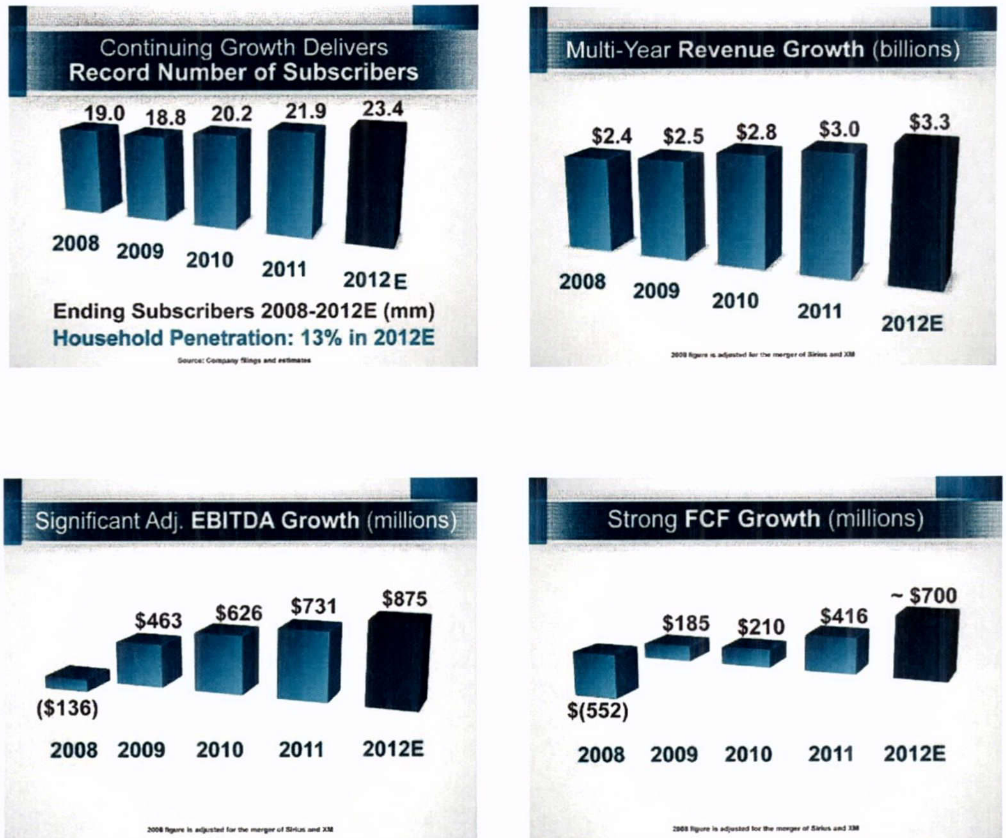

Figure 3: Sirius XM has prospered during the period of Internet Radio's supposed ascendancy[25]

31. In terms of subscribers, Sirius XM is enjoying unprecedented success. The company grew net subscribers by more than 400,000 in the first quarter of 2012 alone, which was an 8% increase over a year ago.[26] As Mr. Karmazin pointed out in their quarterly call, "importantly self pay net additions of 299,000 grew dramatically by 148% compared to the same quarter last year. Both of these figures represent the strongest first quarter net add performance we have achieved since the combination of Sirius and XM in 2008…. This strong first quarter has made us feel comfortable in raising our full year net additions guidance from 1.3 million to 1.5 million. This increased guidance will put our

[25] SX Ex. 211-RP, at 10, 36-38.
[26] *SIRI – Q1 2012 Sirius Satellite Radio Earnings Conference Call*, May 1, 2012 (SX Ex. 221-RP), at 3.

paid subscriber base at 23.4 million by year-end, an all-time record. And yes, we continue to be conservative, but are more optimistic than we were 3 months ago…."[27]

32. To be sure, 22.3 million subscribers is not large compared to the 247 million Terrestrial Radio market as a whole, but it represents an extremely profitable business. In 2011, Sirius XM attained $3 billion in revenues, and $731 million in adjusted EBITDA.[28] The first quarter of 2012 symbolizes the huge bottom line momentum that exists at Sirius XM. Revenue was up 11% from $724 million in 1Q 2011 to $805 million this year.[29] Adjusted EBITDA grew a strong 15% while Net Income was up 38%.[30] As Sirius XM's Mr. Karmazin put it, "[b]ased on everything we know today, we are confident that 2012 will be great year for us and 2013 will be even better."[31]

33. Mr. Karmazin further observed that in the three years since the date of the Sirius and XM merger "you can easily see the kind of progress we've made with our business. Subscribers are up 20%...The operating metrics have likewise improved over that same period. Self-pay churn of 2.2% in the first quarter of 2009 has improved to the 1.9% we saw in this year's first quarter. Our conversion rate has been steady at 45% despite our penetration rate climbing from 52% to 65% over that time period."[32] These numbers represent simply an outstanding current report card for the company.

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[27] SX Ex. 221-RP, at 3. Sirius XM has also publicly reported enjoying a large non-subscribing listener base of nearly 40 million individuals. *Sirius XM Wants to Deal Directly With Record Labels*, Sirius Buzz, August 10, 2011 (available at http://siriusbuzz.com/sirius-xm-wants-to-deal-directly-with-record-labels.php).

[28] SX Ex. 211-RP, at 36-37.

[29] Form 8-K filed by Sirius XM Radio Inc. for the period ending 5/1/12 including press release titled *Sirius XM Reports First Quarter 2012 Results* (SX Ex. 213-RP), at 6.

[30] SX Ex. 213-RP, at 6.

[31] SX Ex. 221-RP, at 5.

[32] SX Ex. 221-RP, at 4.

34. Sirius XM CFO David Frear summed it up well: "So all this [growth for Internet Radio] should sound like terrible news for Sirius XM Radio, except that we, through all this competition, managed to grow from zero to over 20 million subscribers."[33]

PART III: SATELLITE RADIO WILL CONTINUE TO GROW DESPITE INTERNET RADIO.

35. The future for Satellite Radio continues to look bright. As Sirius XM's own projections show, Satellite Radio is expected to gain more customers and become more profitable over the upcoming rate period. And it will do so despite competition from Internet Radio. As I describe below, there are four primary reasons why Satellite Radio will continue to prosper despite the growing availability of Internet Radio.

A. The Sirius XM Market Niche

36. The first point is a fundamental one: Sirius XM's profitability does not depend on becoming the largest purveyor of music in the car, or anything like it. Sirius XM will be – and is – a highly profitable company with over 22.3 million subscribers.[34] While that is a large number in absolute terms, it still is dwarfed by the number of people who listen to Terrestrial Radio. Over the last five years Satellite Radio has taken increasing amounts of market share away from Terrestrial Radio. Internet Radio is now also starting to attract consumers away from Terrestrial Radio as well, but there is more than enough room in the market for both of these newer forms of radio to grow and prosper. The growth of Internet Radio, in short, is more likely to come at the expense of Terrestrial Radio than Satellite Radio.

[33] Credit Suisse Global Media and Communications Convergence Conference 3/8/2011, SXM_CRB_DIR_00020608 (SX Ex. 214-RP), at 1.
[34] SX Ex. 211-RP, at 11.

37. That is particularly so because Satellite Radio, with its diverse channels of commercial-free programming, offers a distinctive service compared to Internet Radio. Not all consumers want to have any responsibility for determining the music that they hear, even in the personalized manner that Pandora employs. Instead, as Mr. Rosenblatt recognized, there is a demand in the market for what Sirius XM offers – carefully curated playlists focusing on a particular genre of music.[35] Some consumers (indeed millions of them) simply want to be able to turn on their radio in the car and listen to programmed music, and services like Pandora do not scratch that itch. And while many Internet Radio services provide programmed music to some extent, much of the programming on those services services is not commercial-free, in contrast to Sirius XM's commercial-free product.

38. A recent Bridge Ratings Study on Pandora's listener satisfaction patterns provides further proof of the attractiveness of Sirius XM's product. While there is early passion for Pandora in the initial months after a user signs up, the number of sessions and time spent greatly diminishes over time. After only 13 months of Pandora usage, the number of daily sessions and time spent was cut in half with continued steep declines thereafter.[36] In fact, a study conducted by Sirius XM shows that [[redacted]].[37] Listener dissatisfaction and restlessness with regard to the personalized Pandora service is likely to benefit the fortunes of Sirius XM and its commercial-free music product.

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[35] 6/8/12 Tr. 1094:18-1096:7 (Rosenblatt).
[36] *Bridge Ratings Pandora Update – Consumer Use*, April 25, 2012 (available at http://www.bridgeratings.com/press.04.22.12.Pandora.Overtime.htm).
[37] *Pandora Use by Sirius XM Subscribers*, SXM_CRB_DIR_00042774, at 14.

B. Sirius XM Auto Advantage

39. Satellite Radio currently has an advantage over Internet Radio in the car because at present, for the great majority of cars on the road today, the Internet Radio audio stream must be controlled from the smartphone itself rather than from the dashboard. As of 2010, fewer than [[redacted]]% of cars on the road had some sort of in-dash Internet Radio.[38] Operating a smartphone while driving is difficult, dangerous, and in fact illegal in many states. The National Safety Council estimates that in 2010, 21% of crashes or 1.1 million crashes involved talking on handheld and hands-free cell phones.[39] Another 3 percent or 160,000 crashes involved text messaging, bringing the total to a minimum 24% of all crashes involving drivers talking or texting on cell phones.[40] It has led to 10 states plus Washington, D.C. prohibiting all drivers from using handheld cell phones, while 32 states plus Washington, D.C. ban all cellular use by "novice drivers."[41]

40. While this advantage for Satellite Radio may diminish over time, Satellite Radio will remain better integrated into cars than Internet Radio during the upcoming rate term. Since its inception, Satellite Radio has mainly turned to the auto industry for its product distribution. Sirius XM has been putting its radios in new cars for years, allowing the Satellite Radio device to be integrated directly into the dashboard, often with a visual display that is easy for a consumer to operate. Sirius XM's own statistics show that of the approximately 250 million cars on the road in 2010,[42] [[redacted]]% had Satellite Radio

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[38] SX Ex. 212-RR, at 10.
[39] *Annual Estimate of Cell Phone Crashes 2010*, National Safety Council (available at http://www.nsc.org/safety_road/Distracted_Driving/Documents/Attributable%20Risk%20Summary.pdf).
[40] *Annual Estimate of Cell Phone Crashes 2010*, National Safety Council (available at http://www.nsc.org/safety_road/Distracted_Driving/Documents/Attributable%20Risk%20Summary.pdf).
[41] *Cell Phone and Texting Laws*, Governors Highway Safety Association (available at http://www.ghsa.org/html/stateinfo/laws/cellphone_laws.html).
[42] Bureau of Transportation Statistics, *Number of U.S. Aircraft, Vehicles, Vessels, and Other Conveyances* (available at http://www.bts.gov/publications/national_transportation_statistics/html/table_01_11.html).

installed.[43] And over the next five years, Sirius XM expects to have its radios installed on [[redacted]] of all new cars.[44] The result is that Sirius XM expects to have an installed base of [[redacted]]% of all the cars in the United States by 2016.[45]

41. Compare this to Internet Radio. This number of in-dash Internet Radio cars is going to rise, but the speed with which it rises is limited by the simple math of the car market. As of 2010, there were approximately 250 million registered vehicles in this country,[46] and Sirius XM predicts that [[redacted]] new cars will be sold between 2011 and 2016.[47] Even if *every one* of those cars came installed with in-dash Internet Radio, there would still be fewer than 100 million cars with in-dash Internet Radio, which works out to be no more than the [[redacted]] penetration rate that Sirius XM predicts it will have by that time.[48] But, of course, Internet Radio will not come close to being installed in every new car over those years, such that it will not be able to catch up with Sirius XM. That is why Sirius XM CFO David Frear predicts a continued wide gap between the services: "that by 2018, somewhere around 28 million cars on the road will be connected. .... You'll have 100 million satellite radios on the road and there'll probably be solidly over 30 million cars on the road that are connected and are capable of receiving IP services."[49]

42. I wanted to verify Mr. Frear's estimates by getting independent data about Sirius

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[43] SX Ex. 212-RR, at 10.
[44] SX Trial Ex. 9, at 4.
[45] SX Ex. 212-RR, at 10.
[46] Bureau of Transportation Statistics, *Number of U.S. Aircraft, Vehicles, Vessels, and Other Conveyances* (available at http://www.bts.gov/publications/national_transportation_statistics/html/ table_01_11.html).
[47] SX Trial Ex. 9, at 4.
[48] The 40% figure represents 100 million Internet Radio cars out of 250 million cars on the road. This calculation thus conservatively assumes that the number of cars on the road will not increase between 2010 and 2016. If it did, the penetration rate for Internet Radio would be lower. SX Ex. 212-RR, at 10.
[49] UBS Global Media & Communications Conference 12/05/2011, SXM_CRB_DIR_00020710 (SX Ex. 215-RP), at 4.

XM and Internet Radio installations. I had Myles Kitchen, an engineer and specialist in car technology, project the number of new cars with Sirius XM and in-dash Internet Radio installed through 2017 based on the most current public information available. Mr. Kitchen's numbers are quite close to Sirius XM's. He projects that Sirius XM will be installed in approximately 80 million new cars between 2011 and 2017. He also calculates that based on deals in place today, in-dash Internet Radio will be installed in 23 million cars between 2011 and 2017.[50] These results are consistent with Sirius XM's own estimates, and my conclusions would be the same regardless of which numbers are used: far more cars on the road in 2017 will have satellite radio installed than in-dash Internet Radio. Mr. Karmazin put it well: "It takes a long time to get into all of these vehicles. The car companies work three years in advance...It took a long time to go from 20 percent to where we are today...before any of these companies get to where they have any meaningful penetration in cars...it is going to be years from now."[51]

43. Sirius XM's advantage increases even further when you consider the enormous market for used cars, which Mr. Frear has described as "a great opportunity for growth for us."[52] Sirius XM has deals with almost every major car manufacturer to offer a free trial subscription to used car buyers with the sale of every certified pre-owned car that contains a satellite radio.[53] And Sirius XM has a similar deal with used car giant Carmax.[54] The result is that Sirius XM has the opportunity to introduce its service to millions of used car

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[50] Because Mr. Kitchen's number are based on deals in place today, it is entirely possible that future deals will bring the number of in-dash Internet Radio cars closer to Sirius XM's estimate of 28 or 30 million cars. In the end, the precise number does not matter because either way it is dwarfed by the number of vehicles with Sirius XM installed.

[51] Liberty Media Investor Meeting transcript 11/17/2011, SXM_CRB_DIR_00020733 (SX Ex. 216-RP), at 14.

[52] SX Ex. 215-RP, at 4.

[53] SX Ex. 211-RP, at 22.

[54] *A Deeper Look At Sirius XM's Used Car Channel*, Seeking Alpha, May 30, 2012 (available at http://seekingalpha.com/article/625971-a-deeper-look-at-sirius-xm-s-used-car-channel).

buyers in a way that Internet Radio does not.

C. Cellular Coverage Challenge

44. Another hindrance to Internet Radio is the limitation of the cellular phone network. As I explain, most of the country today is served by a 3G cellular network that lacks sufficient bandwidth to support large-scale streaming by users. Basic cellular coverage consists of a series of tower sites that deliver in a sequential way continuous coverage for a consumer to access their contracted services. Whether it is making a call or sending a text or accessing the web, a person's capacity to complete a conversation or listen to a song is dependent on the ability of your phone to clearly receive a signal from a cellular tower at your locale.

45. As you drive in your car down a street or highway, the signal of your phone is transferred from one tower site to the next. The challenge of any cellular provider is to erect and maintain enough towers to create a seamless signal as you travel from one area to the next. If there is a gap in this coverage than a consumer loses its signal and it results in the dropped call that everyone involved in this case has personally experienced.

46. The big four cellular providers are Verizon, AT&T, Sprint and T-Mobile. They each possess their own coverage challenges as they attempt to serve as big of a population base as possible within the resource restraints of their companies. The quality standards are evolving but 3G is currently the most readily available system across the country.

47. Verizon is the largest provider in the nation and, as evidenced by their coverage map, they reach most of the United States with their 3G products.[55] But, to share an anecdote that I believe will register with most users of cell phones, I can personally attest

[55] Verizon Wireless network coverage map, accessed June 29, 2012 (available at http://network4g.verizonwireless.com/#!/coverage).

to the severe holes that their service has even in the most densely reported areas. Whether you are motoring down the half-mile gap on one of Boston's biggest expressways or riding by Mt. Soledad in the heart of La Jolla, CA, or walking around my house in Meredith, NH, there are signal lapses that create disconnected calls or music interruptions as you attempt to complete a call or listen to Internet Radio.

48. Sirius XM is well aware of the limitations of 3G technology and it has frequently touted them to its shareholders and the world. For example, Sirius XM executive James Meyer stated in a quarterly conference call that"[t]his is no knock on the big technology of 3G networks, but there's a lot of places where 3G doesn't work. And in terms of streaming, where it reverts to a 2G service for voice. Obviously our network was built to work with over three 9s of accuracy and so all of those places you're assured of getting our full selection of satellite radio."[56]

49. Likewise, a Sirius XM draft presentation from 2010 emphasized that [[redacted]] and that ["[redacted]][57] The presentation went on to hypothesize that [[redacted]].[58]

50. Ultimately, the upgrade to a 4G standard will provide a better quality experience for the smartphone and other users of web delivered content. It is a costly and time-

[56] *SIRI – Q3 2009 Sirius Satellite Radio Earnings Conference Call 11/5/09*, SXM_CRB_DIR_00020810, at 13.
[57] SXM_CRB_DIR_0034101 (SX Trial Ex. 7), at 6.
[58] SX Trial Ex. 7, at 7.

consuming process for the carriers to get there. As evidenced by the current coverage maps from AT&T and Verizon, most of the nation is simply not covered by 4G.[59]

AT&T 4G LTE Coverage	Verizon 4G LTE Coverage

51. Conversely, Sirius XM's satellite delivery service offers its subscribers a more consistent signal delivery to their cars. As CEO Mel Karmazin points out, "we are an advantage to doing it on IP because you are going to often have buffering and you're going to have clutter. They tell me that, as time goes on, 4G is going to improve it, and buildouts. So I definitely think our network is a huge advantage to us over, you know, the other networks."[60] Sirius XM has a definitive competitive signal benefit over any that cellular coverage can provide. And it will continue to have it for some years to come.

D. Growing Restrictions on Unlimited Data Plans

52. Mr. Rosenblatt places heavy emphasis on the fact that access to Sirius XM requires payment of a monthly fee, while users of Internet Radio may obtain content without paying fees in excess of the data plan they already have with their cell phone carrier.[61] Leaving aside the fact that these unlimited data plans themselves typically cost upwards of $40 per month, they are now being eliminated by cell phone carriers. And when a consumer must pay for streamed music by the kilobyte, the marginal costs become

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[59] Verizon Wireless coverage map showing comparison of Verizon and AT&T 4G networks, accessed June 29, 2012 (available at http://network4g.verizonwireless.com/#!/coverage).
[60] 6/11/12 Tr. 1436:2-5 (Karmazin).
[61] SXM Dir. Trial Ex. 17, at 34-37.

substantial, amounting to nearly $30 in data charges per month to listen to Internet Radio for an hour an day. Satellite Radio's product is highly competitive in price in that light.

53. When the iPhone was introduced in June of 2007, the resulting smartphone industry forever changed the demand on data delivery on the various cellular networks. At first, companies such as AT&T, which exclusively introduced the game-changing new Apple product, offered their subscribers a flat rate for unlimited data on their phones. It resulted in unprecedented usage as iPhone owners spent hours and hours surfing the web, sharing photos and attempting all kinds of internet-related activities. The carriers quickly learned that the data drag from smartphones was becoming a strain on their system and also a growing problem for their revenue stream.

54. As a result, for over a year AT&T and Verizon have been moving away from offering what they perceive to be a choking "Unlimited Data" package.[62] It has been replaced with tier pricing based on a person's data level needs. Since most cellular contracts are two years in length when you accept a phone upgrade, there is a shrinking group of grandfathered "Unlimited Data" customers in the system. Verizon announced just weeks ago that any remaining "Unlimited Data" users will be required to changeover to a more traditional data plan when they want to access an earned deeply discounted phone upgrade (usually at the 2 year mark).[63] If the customer wants to retain their "Unlimited Data" status, they would have to purchase an upgraded phone at the full retail price that is hundreds of dollars more expensive than the discounted upgrade that comes

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[62] *AT&T Ends All-You-Can-Eat*, The Wall Street Journal, March 1, 2012 (available at http://online.wsj.com/article/SB10001424052970203986604577255532947217336.html).
[63] *Verizon to End Unlimited Data for Upgraders*, CNN Money, May 16, 2012 (available at http://money.cnn.com/2012/05/16/technology/verizon-unlimited-data-plan/index.htm).

with your cellular contract renewal. With the two biggest suppliers not in the "Unlimited Data" business, it will soon be a memory for most consumers.

55. A smartphone uses a large amount of data for audio. While the text of an email uses a relatively small 10 KB, and a digital photo download is 3 MB (1 MB= 1,024 KB), audio streaming eats up a hefty 60 MB per hour.[64]

56. Market leader Verizon employs a simple calculator to estimate how much data a user would consume based on their daily activities. It helps them consult with their customers as to what exact data plan would fit their needs. Assuming that a person has an average commute of up to an hour a day in the car and additionally does some casual listening over the weekends going from place to place, it would bring an average Pandora or other Internet Radio user to 1.76 GB (1 GB= 1,024 MB) per month.[65]

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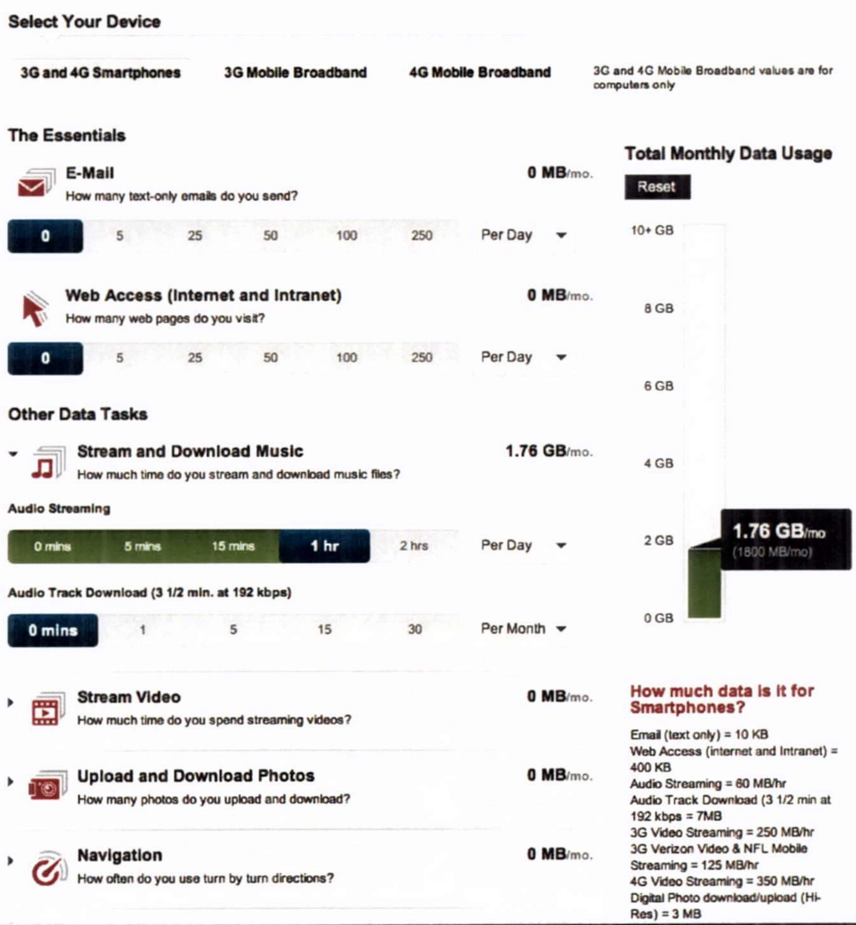
[64] Verizon Wireless data usage calculator, accessed June 29, 2012 (available at http://www.verizonwireless.com/b2c/splash/datacalculatorPopup.jsp).
[65] Verizon Wireless data usage calculator, accessed June 29, 2012 (available at http://www.verizonwireless.com/b2c/splash/datacalculatorPopup.jsp).



57. Verizon currently charges $30/month for a 2GB data plan, meaning that a Verizon customer would have to spend $30 per month just to stream music an hour a day, and would have only a very modest amount of data (.24 GB/month) to allocate to any other use of the smartphone.[66] As explained in the direct testimony of SoundExchange witness J. Gregory Sidak, customers using mobile Internet Radio are likely to upgrade to more expensive data plans in order to have sufficient monthly data allowances, resulting in a $50 per month outlay.[67] Compare that to the $9.99 per month that Sirius XM charges for

[66] Verizon Wireless data plan pricing page, accessed June 29, 2012 (available through http://www.verizonwireless.com/b2c/store/controller?sortOption=priceSort&item=planFirst&action=viewPlanList&catId=323&sel=ind&typeId=1).

[67] *Amended and Corrected Written Direct Testimony of J. Gregory Sidak* (SX Trial Ex. 78), at ¶ 60.

its Mostly Music package,[68] and it is clear that Sirius XM is well-positioned to compete on price with Internet Radio.

Data for Smartphones & Basic Phones

Data Allowance How much do I need?	Monthly Access	Overage
Pay As You Go (For Basic Phones Only)	$1.99/MB – Personal Email $5	
75MB (For Basic Phones Only)	**$10**	$10/75MB
2GB	**$30**	$10/1GB
5GB	**$50**	$10/1GB
10GB	**$80**	$10/1GB

Overage charges occur when you exceed your Data Allowance.
Personal email is included with all data packages. 2GB and 5GB data packages not eligible for discounts.

CONCLUSION

58. For all the above reasons, Internet Radio is not life-threatening to Satellite Radio. On the contrary, Sirius XM has grown in the face of Internet Radio, and it will continue to grow. With more subscribers than ever before, and even more subscribers on the way, Sirius XM will continue to be a very popular and profitable enterprise.

[68] Sirius XM Mostly Music subscription page, accessed June 29, 2012 (available at http://www.siriusxm.com/subscriptions/packages/xm/mostlymusic).

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

Date: July 2, 2012

David Pearlman

Exhibits Sponsored by David Pearlman

Exhibit No.	Description
SX Ex. 211-RP	Form 8K including Sirius XM 2012 Stockholder Meeting Presentation
SX Ex. 212-RR	Sirius XM Competitive Assessment, May 2011 (SXM_CRB_DIR_00001807)
SX Ex. 213-RP	Form 8K including Sirius XM Press Release on First Quarter 2012 Results
SX Ex. 214-RP	Transcript of Credit Suisse Global Media and Communications Convergence Conference, March 8, 2011 (SXM_CRB_DIR_00020608)
SX Ex. 215-RP	Transcript of UBS Global Media and Communications Conference, December 5, 2011 (SXM_CRB_DIR_00020710)
SX Ex. 216-RP	Transcript of Liberty Media Capital Investor Meeting, November 17, 2011 (SXM_CRB_DIR_00020733)

DAVID PEARLMAN

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781-674-1434 (Office) - 617-529-8500 (Cell)
David@PearlmanAdvisors.com

PROFILE

- Over 36 years of extraordinary bottom-line performance as a highly successful interpreneur and entrepreneur in the Radio industry.
- Excelled as the top achieving group operator for two of the nation's best broadcasting brands delivering #1 ratings, revenues and EBITDA growth
- Created or Co-Founded two Radio companies. One of them grew from an emerging leading edge consolidator to publicly traded entity to the country's 4th largest broadcaster and ultimately sold for the then biggest enterprise price in history.
- Startup/turnaround specialist who also has exhibited superlative skills in growing market share with mature properties in the country's most competitive marketplaces.
- Nationally renowned senior executive who set industry standards for programming innovation and sales success while developing some of the country's best talent and management.
- Radio pioneer in successful consolidation/cluster strategies that produced operational cost efficiencies and unprecedented leadership positions in markets managed.
- Recognized leader serving as Chairman of the Arbitron Advisory Council, Vice Chairman of RAB, annually ranked on "40 Most Powerful In Radio" list and was past recipient of "R.W. National Broadcaster of the Year" award.

PROFESSIONAL EXPERIENCE

PEARLMAN ADVISORS — Lexington, Massachusetts
2003-present
President

- Management Consultant to the Media Industry. Services provided include market research, programming strategies, management development and executive recruitment.
- Clients range from Entercom to Arbitron to Blitz Media to other major broadcasting companies.

INFINITY BROADCASTING/CBS RADIO — Boston, Massachusetts
1998-2002
Senior Vice President/Co-Chief Operating Officer

- Operated the top-performing region for the industry's 2nd largest and #1 most profitable Radio company.
- Directly managed 11 of the top 50 metros generating almost $400 million in revenue and over $170 million in cash flow. Produced sales that more than doubled the underlying growth rate of the industry.

- Portfolio of supervised stations would have ranked among the top five radio companies in the country.
- Consolidation/cluster strategy implementation resulted in breakthrough sales synergies, major cost reductions and leading performances in regions ranging from Boston to Baltimore to Hartford to Pittsburgh.
- Engineered successful turnaround strategies in several markets that delivered record ratings and revenue.
- Negotiated precedent setting contracts for the industry with key national vendors, professional & collegiate sports teams and with acquired entities.
- Created and directed the company's national non-traditional revenue sales organization which grew from zero to $50 million in yearly new to Radio exclusive revenue for Infinity.

AMERICAN RADIO SYSTEMS Boston, Massachusetts
1993-1998
Co-Founder/Co-Chief Operating Officer

- Co-creator of a leading edge consolidator of radio stations focused on markets 10-50 that quantumly grew from an initial 16 outlets into a publicly traded, highly profitable & respected 96-station group.
- Directly responsible for a high achievement region of 7 major markets while being immersed in all phases of acquisition activity and corporate decision-making. Was an active participant in all Board of Director and IPO related activities while implementing a culture that became one of the most coveted in the industry.
- Company became a recognized leader in market consolidation innovation and dramatically grew to the 4th largest radio company while developing leadership ratings and revenue positions in nearly all of its markets.
- Sold to CBS for a then industry record enterprise price of $2.4 Billion.

MULTI-MARKET COMMUNICATIONS Farmington, Connecticut
1989-1993
Founder, President/CEO

- Organized Radio company focused on startup/turnaround opportunities in the top 50 markets.
- Raised capital, negotiated and purchased an all-weather station, which was then transformed into AC WZMX, Hartford. Within months, the startup station went from zero ratings to #1 25-54 and has remained a perennial powerhouse in the region.
- Became one of the three predecessor companies that merged to create American Radio Systems.

WESTINGHOUSE BROADCASTING COMPANY
1975-1989

Vice President/General Manager
WMAQ Radio Chicago, Illinois
1988-1989

- Led Group W entry into Chicago market with 24-hour All-News startup station.

- Recruited, trained and managed full-time staff of 100 employees while conceiving many innovative marketing & programming vehicles which resulted in big ratings & revenue growth for the station.

Vice President/General Manager
KODA Radio Houston, Texas
1983-1988

- Managed a then $10 million FM facility which netted the highest return on sales in Group W.
- Repositioned station to double its audience, triple its' revenue and deliver 700% more to the profit line.
- Negotiated and successfully implemented the nation's first ever FM Flagship Professional rights contract with the NFL's Houston Oilers.
- Awarded "Group W Winner's Circle" for outstanding management for unprecedented third time.

Previous Positions at Westinghouse:

General Sales Manager, KJQY Radio San Diego, California
1981-1983

Sales Manager, KFWB Radio Los Angeles, California
1979-1981

Account Executive, Radio Advertising Representatives New York, New York
1977-1979

Account Executive, WBZ Radio Boston, Massachusetts
1975-1977

OTHER PROFESSIONAL EXPERIENCE

Sports Reporter/Anchor/Producer, WEEI Radio Boston, Massachusetts
1971-1975
TV/Radio Play-by-Play, Boston College Sports Network Boston, Massachusetts
1970-1980
Play-by-Play/Executive Producer, Beacon Sports Network Boston, Massachusetts
1970-1975

EDUCATIONAL BACKGROUND

BOSTON UNIVERSITY
GRADUATE SCHOOL OF BUSINESS Boston, Massachusetts
M.B.A. in Marketing and Finance - 1974

BOSTON COLLEGE
SCHOOL OF MANAGEMENT Boston, Massachusetts
Magna Cum Laude graduate with B.S. degree in Marketing - 1972

COMMUNITY LEADERSHIP/PROFESSIONAL ACTIVITIES

- Vice Chairman, Board of Trustees B'nai B'rith New England Sports Lodge 1975-present
- Regional Board of Directors, Anti-Defamation League of New England 2001-2005
- Chairman, Arbitron Advisory Council 2002, Elected Member 1998-2003
- Vice Chairman RAB 2002-3, Executive Board 1998-2003
- Steering Committee Chairman for the 2000 NAB Radio Convention
- Past President New England Broadcasters Association

PERSONAL

- Raised in Brookline, Massachusetts
- Married to wife, Claudia since 1975 with two children Samantha, 28 and Dustin, 25.
- Interests include Sports, Theatre, Movies, Music & Media.

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

REBUTTAL TESTIMONY OF

ITAMAR SIMONSON

Sebastian S. Kresge Professor of Marketing
at the Graduate School of Business, Stanford University

PUBLIC VERSION

Witness for SoundExchange, Inc.

BACKGROUND AND QUALIFICATIONS

1. I am the Sebastian S. Kresge Professor of Marketing at the Graduate School of Business, Stanford University. A copy of my curriculum vitae, which includes a complete list of my publications, is attached as Appendix A. My field of expertise includes consumer behavior, marketing management, survey methods, and human judgment and decision making. Most of my research has focused on buyers' purchasing behavior as well as the effect on buying decisions of product/service characteristics (such as brand name, price, and features), the competitive context, and marketing activities (such as promotions, advertising).

2. I hold a Ph.D. in Marketing from Duke University, Fuqua School of Business, a master's degree in Business Administration (MBA) from the UCLA Graduate School of Management, and a bachelor's degree from The Hebrew University with majors in Economics and Political Science.

3. After completing my MBA studies and before starting the Ph.D. program, I worked for five years in a marketing capacity for a subsidiary of Motorola Inc., serving in the last two years as the product marketing manager for two-way communications products. My work included defining new products and designing marketing plans for new product introductions, customer and competitor analysis, and sales forecasting.

4. Prior to joining the faculty of Stanford University, I served for six years on the faculty of the University of California at Berkeley. In that position, I taught an MBA marketing management course, a Ph.D. course on buyer behavior, and a Ph.D. course on buyer decision making. I also taught in various executive education programs, including a program for marketing managers in high technology companies.

5. I joined the faculty of Stanford University in 1993. At Stanford, I have taught MBA and executive courses on marketing management, covering such topics as buyer behavior, developing marketing strategies, building brand equity, advertising, and market research. I also taught an MBA course on marketing to businesses and a course on high technology marketing. In addition to teaching MBA courses, I have guided and supervised numerous MBA student

teams in their work on company and industry projects dealing with a variety of markets. I have taught several doctoral courses. One doctoral course examines methods for conducting consumer research. It focuses on the various stages involved in a research project, including defining the problem to be investigated, selecting and developing the research approach, data collection and analysis, and deriving conclusions. A second doctoral course that I have taught deals with buyer behavior, covering such topics as buyer decision making processes, influences on purchase decisions, and persuasion. A third doctoral course that I have taught deals with buyer decision making.

6. I have received several awards, including (a) the award for the best article published in the Journal of Consumer Research (the major journal on consumer behavior) between 1987 and 1989; (b) the Ferber Award from the Association for Consumer Research, which is the largest association of consumer researchers in the world; (c) the 1997 O'Dell Award, given for the Journal of Marketing Research (the major journal on marketing research issues) article that has had the greatest impact on the marketing field in the previous five years; (d) the 2001 O'Dell award (and a finalist for the O'Dell Award in 1995, 2002, 2004, 2005, 2007, 2008, and 2012); (e) the award for the best article published in the Journal of Public Policy & Marketing (the major journal on public policy and legal aspects of marketing) between 1993 and 1995; (f) the 2007 Society for Consumer Psychology Distinguished Scientific Achievement Award; (g) the 2002 American Marketing Association award for the best article in the area of services marketing; and (h) I was a winner in a competition dealing with research on the effectiveness of direct marketing programs, which was organized by the Direct Marketing Association and the Marketing Science Institute. My research has been widely cited by other researchers in the marketing, consumer behavior, decision making fields, and my publication record has been ranked as one of the most prolific and influential.[1]

[1] See, for example, S. Seggie and D. Griffith (2009), "What Does It Take to Get Promoted in Marketing Academia? Understanding Exceptional Publication Productivity in the Leading Marketing Journals," *Journal of Marketing*, 73, 122-132.

7. I serve on eight journal editorial boards, including leading journals such as the Journal of Consumer Research, Journal of Marketing Research, and the Journal of Consumer Psychology. I am also a frequent reviewer of articles submitted to journals in other fields, such as psychology, decision making, and economics. I received (twice) the Outstanding Reviewer Award from the Journal of Consumer Research. As a reviewer, I am asked to evaluate the research of scholars wishing to publish their articles in leading scholarly journals. I have also worked as a consultant for companies and organizations on a variety of marketing and buyer behavior topics.

8. I have conducted, supervised, or evaluated well over 1,000 marketing research surveys, including many related to consumer behavior and information processing, trademark, branding, marketing strategies, and advertising-related issues.

9. I have served as an expert in prior litigations involving various marketing and buyer behavior issues, trademark-related matters, false advertising, branding, and other areas. A list of cases in which I have provided sworn testimony during the past four years is included in Appendix B.

10. I am being compensated at my standard rate of $700 an hour. No part of my compensation is contingent on the outcome of this case.

11. I was asked by counsel for SoundExchange to evaluate the methodology, results, and conclusions reported by Dr. Hauser based on a survey that he conducted in 2011 ("Hauser Survey"). The documents that I reviewed in connection with preparation of this report are listed in Appendix C.

SUMMARY OF CONCLUSIONS

12. The Hauser Survey is methodologically flawed in numerous respects that largely predetermined its findings; as a result, the survey greatly underestimated the value of music. Most importantly, contrary to the well-established tendency of consumers to evaluate product features in the order of their importance, Dr. Hauser's decision to randomize the order in which

features of the satellite radio service were removed effectively presumed that all features, including music, were equally important.

13. However, Sirius XM's own internal surveys have shown that music is the most important feature of the service. And although the Hauser Survey severely underestimated the value of music, the Hauser Survey results similarly found that music is the most important feature (despite the fact that given the randomized feature removal order, over half the Hauser Survey respondents allocated $0.00 value for music because they had no value "left" before music was removed).

14. The Hauser Survey results confirmed that the order of feature removal was the primary driver of the derived value of music, with the estimated average value of music being over 20X greater when it was removed first compared to last. But based on established consumer decision making principles, for most respondents music should have been the first feature to be removed. Accordingly, the critical error of relying on a random feature removal order produced a very substantial underestimation of the true value of music for Sirius XM's subscribers.

15. Dr. Hauser further underestimates the value of music by attempting to separately parse the value of service attributes such as freedom from commercials and premium sound quality that have value only in association with music. Dr. Hauser's survey also failed to ask appropriate filter questions to make sure that only those who believed they were capable of estimating the values of hypothetical feature bundles answered the survey questions. In addition, his approach to selecting the seven attributes about which respondents were asked did not follow standard survey practices. Finally, his attempt to assess the value of pre-1972 music does not yield reliable results.

16. Despite its flaws, we can derive a range estimate based on the Hauser Survey results by assuming that most, though not all, Sirius XM subscribers consider music as the most important feature and that music has a positive value (greater than $0.00) for virtually all Sirius subscribers. The resulting music value range (using the Hauser Survey data) is between $10.37

and $5.75; considering that music is the most important feature for the majority of Sirius subscribers, the value of music for the average Sirius XM subscriber is much closer to the high end of the range ($10.37).

OVERVIEW OF THE HAUSER SURVEY

17. The Hauser Survey was designed "to examine the value that current subscribers of satellite radio place on music, other types of programming, and non-programming features of satellite radio" (Hauser 2011 Written Direct Testimony, p. 5). The Hauser Written Direct Testimony (p. 6) further indicates that the survey was designed "to measure the value consumers place on the various features of satellite radio, including music, non-music entertainment-talk, or comedy shows, news, weather or traffic reports, sports coverage, commercial-free programming, excellent sound quality, and the ability to listen to the same stations everywhere."

18. After several introductory questions, respondents were asked a series of seven questions that provided the measures of willingness-to-pay (WTP) for music and other service attributes. As described in the Hauser Written Direct Testimony (pp. 21-22):

> Next, respondents were asked a series of seven questions to measure how much they would be willing to pay under a number of different conditions. The conditions involved the randomized removal of various programming and non-programming features of satellite radio one at a time. These conditions built cumulatively upon one another, with each question including all the conditions in the previous question. For example, in Q7b a respondent was asked "How much would you pay per month for satellite radio if ... You couldn't listen to the same stations everywhere AND Sound quality was equal only to that of standard FM radio you can listen to ..." Following this question, the respondent was asked in Q7c "How much would you pay per month for satellite radio if ... You couldn't listen to the same stations everywhere AND Sound quality was only equal to that of standard FM radio you can listen to AND There were as many commercials as on AM or FM radio ..." All conditions were presented in random order and the respondents were asked how much they would be willing to pay relative to their anchor price or their previous response.

19. There is little doubt that estimating the values of and corresponding consumer WTP for product and service attributes is a challenging task, and it is all the more so when one

attribute affects the value of (or interacts with) another. The difficulty arises because, as shown by a great deal of research (e.g., Simonson 1989, 1993, 1994, 2008[2]; Bettman et al. 1998[3]), consumers' preferences and values are often ill-defined and easily influenced. Moreover, consumers often lack the self-insight needed for assessing their true values and the reasons for their decisions.[4]

20. To understand the degree to which consumers' WTP estimates are susceptible to irrelevant influences, particularly the manner in which the estimates are derived, consider the following study.[5] Study participants were shown different products and asked to indicate their WTP for each. Before that, however, they were asked to enter the last two digits of their social security number (SSN) and, assuming the last two digits were a price in dollars, whether they would be willing to pay that price for the product. For example, respondents were shown a toaster (including a picture of the toaster and a list of features). They were first asked if they would be willing to buy the toaster assuming its price in dollars were equal to the last two digits of their SSN. The results showed that respondents whose last two SSN digits were between 00 and 49 were willing to pay for the toaster significantly less than those whose last two digits were between 50 and 99. Evidently, merely considering a random price affected the WTP for the products.[6] Such findings demonstrate the fact that WTP estimates tend to be highly sensitive to the questions asked and the considered reference points.

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[2] Itamar Simonson (1989), "Choice Based on Reasons: The Case of Attraction and Compromise Effects," *Journal of Consumer Research*, 16 (September), 158-174; Itamar Simonson (1993), "Get Closer to Your Customers by Understanding How They Make Choices," *California Management Review*, 35 (4), 68-84; Itamar Simonson (1994), "Shoppers' Easily Influences Choices," *New York Times*, November 6; Itamar Simonson (2008), "Will I Like a 'Medium' Pillow? Another Look at Constructed and Inherent Preferences," *Journal of Consumer Psychology*, 18, 155-169.

[3] James Bettman, Mary Frances Luce, and John Payne (1998), "Constructive Consumer Choice Processes," *Journal of Consumer Research*, 25 (4), 187-217.

[4] See, for example, R. Nisbett, and T. Wilson (1977), "Telling More Than We Can Know: Verbal Reports on Mental Processes," *Psychological Review*, 84, 231-259.

[5] Itamar Simonson and Aimee Drolet (2004), "Anchoring Effects on Consumers' Willingness-to-Pay and Willingness-to-Accept," *Journal of Consumer Research*, 31 (December), 681-90.

[6] This finding is related to the so-called "anchoring" effect (Amos Tversky and Daniel Kahneman (1974), "Judgment Under Uncertainty: Heuristics and Biases," *Science*, 185, 1124-1131).

21. Given these difficulties, any estimate of consumers' WTP for product attributes must be based on a careful consideration of consumers' decision processes and the manner in which they evaluate the product or service being studied. Applying statistical techniques to derive WTP estimates without taking into consideration consumers' decision processes is likely to produce seemingly precise but often meaningless and unreliable estimates. In my opinion, the Hauser Survey suffers from multiple flaws, but the most significant of these flaws is its failure to properly account for the manner in which consumers make their purchasing decisions.

DR. HAUSER'S DECISION TO RANDOMIZE THE ORDER IN WHICH FEATURES WERE REMOVED FROM THE SERVICE WAS ERRONEOUS AND LARGELY PREDETERMINED THE RESULTS

22. In order to determine the consumer willingness to pay for various attributes of a satellite radio service, Dr. Hauser asked survey respondents how much they would pay for the service if each of seven attributes of the service were removed one-by-one. The Hauser Survey randomized the order in which attributes were removed, so that different respondents had the attributes removed in a different order. Dr. Hauser then averaged the responses for each attribute to calculate the overall consumer WTP for the attribute. Dr. Hauser claimed that the random removal order enabled the survey to account for interactions among attributes. Dr. Hauser's assumption that the proper approach for estimating the WTP for music was to randomize the order in which the attributes he chose to consider were removed is the critical but flawed centerpiece of his methodology.

23. Dr. Hauser's decision to randomize the order in which respondents were asked to value attributes of the satellite service is contrary to how consumers actually think about such attributes in real life. A great deal of consumer research has established that the order in which consumers consider product attributes is largely determined by the relative importance of the attributes. When consumers decide among competing products, consumers are likely to begin the choice process by considering the most important attribute, and if that

dimension/attribute does not lead to a clear preference, the consumer then tends to consider the next most important attribute, and so on. Such a decision process is related to what is known as "lexicographic" or "elimination by aspects" (Tversky 1972[7]) decision rules.[8]

24. This consumer decision process is one that I have taught in doctoral and MBA courses and addressed in my prior research. For example, I co-authored an article in 1988 which found that attribute importance was a strong driver of the order in which attributes were considered by consumers in making product choices.[9] My conclusions were consistent with prior research indicating that, when making choices among options, consumers tend to consider the most important attribute first, and if needed, the next most important attribute, and so on.[10]

25. In short, consumers' decision processes and, correspondingly, the order in which they consider product/service attributes are not random. Yet, the random order methodology relied upon in the Hauser Survey effectively makes a very specific assumption, which is that all seven attributes are a priori equally important. It is this assumption which presumably justifies the random attribute removal order.[11] We know from internal surveys that Sirius XM produced in discovery, however, that this assumption is incorrect. The Sirius XM surveys leave little

[7] Amos Tversky (1972), "Elimination by Aspects," *Psychological Review*, 79, 281-99.

[8] For a review of various decision rules, see James Bettman, Eric Johnson, and John Payne (1991), "Consumer Decision Making," *Handbook of Consumer Behavior*, Chapter 2.

[9] Itamar Simonson, Joel Huber, and John Payne (1988), "The Relationship between Prior Brand Knowledge and Information Acquisition Order." *Journal of Consumer Research*, 14, 566-78.

[10] E.g., James Bettman and CW Park (1980), "Effects of Prior Knowledge and Experience and Phase of the Choice Process on Consumer Decision Processes: A Protocol Analysis," *Journal of Consumer Research*, 7, 234-48

[11] It is noteworthy that Dr. Hauser's Chrysler 300 analogy (Hauser 2011 Written Direct Testimony, pp. 8-10), on which he relied to justify the random attribute removal order, has little to do with the question at hand. The car example involves three features that might be reasonably expected to be comparable in importance. That example has little in common with the Sirius XM's service where music is the engine from which most other features derive their value (and those that do not, such as entertainment-talk and news, are less important). Accordingly, the Chrysler analogy is non-informative with respect to the current Sirius XM situation. Instead of looking for an example that is largely irrelevant to the case at hand, we should rely on general principles of consumer decision making and their implications for the most representative attribute removal order (given the Hauser Survey's methodology).

doubt that, for most Sirius XM subscribers, music is the most important attribute of satellite radio.

26. Sirius XM has conducted many consumer studies to learn about its subscribers and what they consider most important. These studies show that music is the most important content for most Sirius XM subscribers and the main driver of their decision to subscribe to and retain the Sirius XM service. It is significantly more important than non-music programming (e.g., news, sports, entertainment), as shown in the studies conducted for Sirius XM.

27. The following are some illustrative findings taken from various Sirius XM consumer/subscriber studies:

A. Music channels are the most popular among Sirius subscribers: One Sirius XM study (SX Ex. 201-RR, SXM_CRB_DIR_00042587) found that [[redacted]].

B. Almost all Sirius XM subscribers listen to music (SX Ex. 202-RR, SXM_CRB_DIR_00021755, p. 00021780): [[redacted]]. Another study (SX Ex. 203-RR, SXM_CRB_DIR_00042957, p. 00042993) found that [[redacted]].

C. Sirius XM subscribers listen to music more than any other type of programming. For example, the Sirius XM study discussed above (SX Ex. 203-RR, SXM_CRB_DIR_00042957, p. 00042993) found that [[redacted]].

D. In another study completed for Sirius XM, [[redacted]] (SX Ex. 204-RR, SXM_CRB_DIR_00042861, p. 00042877); among those respondents who consider subscribing to Sirius XM (referred to as "considerers"), [[redacted]], which shows the importance of music for attracting new subscribers.[12]

E. Furthermore, a Sirius XM study (SX Ex. 203-RR, SXM_CRB_DIR_00042957, p. 00042968) concerning user motivation found that [[redacted]]. More specifically, the study found [[redacted]] (see also p. 0043020-22). For example, the study found that music was a significant driver of continuing subscriptions for [[redacted]].[13] (See also p. p. 00042977, ["[redacted]"]).

28. Not surprisingly, the results of the Hauser Survey are consistent with, but greatly understate, the conclusion that music content tends to be by far the most important contributor to the value of the Sirius XM service. As shown in the Hauser Written Direct

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[12] That same study found that "considerers" were [[redacted]]. The study's authors concluded that this "[[redacted]]." (SX Ex. 204-RR, SXM_CRB_DIR_00042861, p. 00042874).

[13] Sirius XM's internal studies show that music is [[redacted]] than exclusive non-music content. (See also, e.g., SX Ex. 205-RR, SXM_CRB_DIR_00045720, pp. 00045737-38, [[redacted]]). In fact, much of Sirius XM's exclusive content only attracts a limited audience. For example, after the merger, Sirius XM attempted to attract a broader audience to Howard Stern with a large "Turn on Stern" marketing campaign aimed at legacy XM subscribers (who previously could not listen to Howard Stern on legacy Sirius). But Sirius XM found that [[redacted]] (SXM_CRB_DIR_00042684, p. 00042689).

Testimony (Exhibit G), the WTP that the survey found (using the random attribute order methodology) was as follows:

- Current levels of music: $3.24
- Ubiquity of station availability: $1.97
- Premium sound quality: $1.20
- Freedom from commercials: $2.46
- Current levels of talk/comedy: $1.46
- Current levels of sports: $1.11
- Current levels of news, weather & traffic: $1.03

29. Overall, there is probably no dispute that music is more important to most, though not all, Sirius XM users when compared to talk/comedy, sports, and news/weather/traffic. That is, most current and prospective Sirius XM users are likely to consider music ahead of these other programs.

30. Given the academic research demonstrating that consumers usually think first about the most important attributes when making product choices, a survey could approximate the true added value and WTP for attributes only if the order in which attributes were removed corresponded to their relative importance to consumers. That is, instead of assuming, as the Hauser methodology effectively did, that all attributes were a priori equally important, the attribute removal order should have corresponded to the attribute importance ranking, starting with music that is demonstrably the first and most important attribute for most respondents.

31. Dr. Hauser's findings regarding the WTP for music were driven almost entirely by his choice to randomize attribute removal order. This is readily seen by examining the effect of the order on the produced estimates. When music was removed first, the estimated average WTP was $10.37. When music was removed last, the WTP estimate was just $0.51 (i.e., less than 5% of the estimate when the same attribute was removed first). I have previously seen situations where the methodology used had a large effect on the derived estimates, but I cannot recall another case where changing the task order changed the key finding by a factor of

20. The fact that the results were almost completely driven by the attribute removal order should have alerted Dr. Hauser that the average WTP estimate reflected his choice of methodology – the randomized attribute removal order in particular – rather than any true WTP for music.

32. As further evidence that Dr. Hauser's randomization methodology was incorrect, consider the fact that out of 348 respondents in the Survey, 186 respondents or 53% of the respondent group had no price "left" by the time they were asked to value music. In other words, these 186 respondents assigned all the value of the service to the attributes they were asked to value before they were asked to value music (and before they even knew that they were going to be asked about music). For these 186 respondents, Dr. Hauser estimated their WTP for music to be $0.00.[14] This finding is highly inconsistent with the internal Sirius XM surveys discussed above demonstrating the significant importance of music to nearly all subscribers. These Sirius XM survey results (e.g., finding that [[redacted]]) cannot be squared with Dr. Hauser's results. Indeed, it is striking that in the Hauser Survey only 11 respondents or 3% of the respondent group actually valued music at $0.00 when given a choice, but Dr. Hauser has assigned a $0.00 value estimate to music for more than half of all respondents. Likewise, for respondents in the Hauser Survey who were actually given an opportunity to value music (and not just assigned a $0.00 value by Dr. Hauser), those individuals valued music *on average* at 81% of whatever value remained. This provides further confirmation that Dr. Hauser's conclusions flow from his methodology rather than any true consumer WTP for music.

[14] Dr. Hauser was apparently unaware (until he was asked about it during his 2012 deposition) that most respondents reached $0.00 and thus "ran out" of value before given an opportunity to allocate value to attributes (including music) removed later in the process (Hauser 2012 Dep. p. 100).

33. Dr. Hauser compared the results of his 2007 and 2011 surveys and highlighted the "Consistency of survey findings" (Hauser 2011 Written Direct Testimony, pp. 30-32) and their "remarkable" similarity (p. 7) as evidence of their reliability. Dr. Hauser misses the point – the "remarkable" similarity of his 2007 and 2011 survey results is due to his continued reliance on the same flawed methodology in both surveys, which largely predetermined the results.

34. Despite the unreliability of any estimate derived based on the randomized order, the Hauser Survey results did produce information that we can use to derive a rough approximation of the WTP for music content. As indicated, based on what is known about consumer decision making, the attribute removal order is neither random nor arbitrary. Instead, it generally reflects the relative importance of attributes. Thus, we can use the portion of the Hauser results that corresponded to the relative importance of the attributes.

35. As indicated, the estimate of the WTP for music derived from the Hauser Survey should reflect the relative importance of the attributes, which determine the order in which the different features of the Sirius XM service tend to be considered when making decisions. Although (as shown above) the Hauser Survey confirmed that music content is indeed the most important attribute, on average, it did not measure the relative importance of the features for each individual respondent. Accordingly, while we can assume that (a) most Sirius XM subscribers value music content higher than other attributes, and (b) the vast majority of subscribers are willing to pay a positive (> $0) amount for music (as shown by studies conducted for Sirius XM; see, e.g., SX Ex. 202-RR, SXM_CRB_DIR_00021755, pp. 00021780 & 82), we can at best determine from the Hauser Survey the *range* (rather than just one point) of WTP for music.

36. If we were to assume that all Sirius XM subscribers value music content the most, we would focus on the WTP for music derived in the Hauser Survey among those who started by evaluating a hypothetical service that omitted only music (i.e., current music level was removed first). As shown in the Hauser Survey report, the average WTP for music in that group was $10.37. However, although the Sirius XM surveys demonstrate that music is the

most important attribute for most subscribers, it is not the most important attribute for all subscribers. Consequently, if one were ordering the attributes based on their importance to survey respondents, music would not be first for every respondent; therefore simply taking the WTP figure for those respondents who were asked to value music as the first attribute would somewhat overstate the average WTP for music.

37. To obtain the other extreme end of the range estimate, we can examine the WTP for music among respondents who evaluated other attributes before music content, focusing only on those who could potentially assign a positive value to music (i.e., among those who had more than $0.00 left to allocate to music). Based on the 2011 Hauser Survey, the estimated WTP for music values were as follows:

Order In Which Music Was Removed	Average WTP For Music
First	$10.37 (n = 43)
Second	$8.45 (n = 34)
Third	$5.38 (n = 35)
Fourth	$4.94 (n = 19)
Fifth	$3.66 (n = 18)
Sixth	$4.29 (n = 6)
Seventh	$3.13 (n = 7)
Average	$5.75

Accordingly, based on the Hauser Survey results, the two extreme ends of the range are $10.37, which is based on the assumption that music is the most important attribute for all Sirius subscribers, and $5.75, which is based on the incorrect assumption that all attributes are equally important.

38. As explained above, there is a great deal of evidence that, for most Sirius XM subscribers, music content is the most important attribute. Thus, we know that the Hauser Survey-based estimate of the WTP for music is much closer to $10.37 than to $5.75. However,

it is not possible to determine from the Hauser Survey data, for example, if the exact WTP for music is $9, $9.25, or $8.75.

39. Moreover, in order to obtain the full WTP for music, we would need to account for the $1.42 Music Royalty Fee, which Sirius XM charges its subscribers with packages containing music programming but which Dr. Hauser excluded completely in his Survey. We know that Sirius XM offers its subscribers the opportunity to avoid paying the Music Royalty Fee entirely by, for example, purchasing a News, Sports and Talk package without any music programming for $9.99 rather than a standard "Select" package for $14.49 with music programming. However, as Mel Karmazin's testimony explains, only [[redacted]] subscribers out of Sirius XM's roughly 22 million subscribers have availed themselves of this option (Karmazin 2011 Written Direct Testimony, p. 15). That is, nearly all of Sirius XM's customers have chosen to pay an extra $1.42 Music Royalty Fee in order to receive music programming, and consequently any estimate for WTP for music should account for this fee that is incurred specifically for receiving music programming. Indeed, it is a safe assumption that if asked, subscribers would allocate all or nearly all of the Music Royalty Fee to music value. While it may have been reasonable for Dr. Hauser not to include other fees and taxes as part of the overall anchor price in his Survey, it was improper to exclude the Music Royalty Fee given its close association with the value of music.

40. On a final note, after the Hauser Survey was completed, Sirius XM raised base subscription prices in January 2012 by roughly 12% from $12.95 to $14.49. Under the Hauser Survey methodology, this price increase would have resulted in an increased anchor price, thereby increasing the value to be allocated among attributes. I agree with Dr. Hauser that to account for this price increase, a reasonable method to estimate the WTP value for music under the new pricing schedule would be to increase the original WTP value range I described above proportionally with size of the price increase (Hauser 2012 Hearing Transcript, p. 1628:10-14, describing that method as "actually not unreasonable").

41. In addition to improperly randomizing attributes, Dr. Hauser's methodology suffers from several other significant flaws. I detail each of those flaws below.

THE HAUSER SURVEY LIKELY UNDERSTIMATES THE VALUE OF MUSIC BY ATTEMPTING TO ASSIGN SEPARATE VALUE TO ATTRIBUTES THAT INTERACT WITH MUSIC

42. *First*, Hauser's method of attempting to parse out separate value for attributes that have no independent value without music is illogical and yields results that underestimate the value of music. For example, the feature "commercial free" has no meaning unless there is music. Similarly, the feature "premium sound quality" has no meaning unless there is music. Moreover, while consumers may not like commercials, the fact that music is offered commercial-free also means that consumers can listen to more music in any given time period (e.g., per hour), which certainly does not lower the value contributed by the music itself.[15] This, of course, does not mean that the "commercial free" and "premium sound" features are not part of the overall music experience. Rather, the point is that "commercial free" and "premium sound" do not have value all by themselves, unassociated with any content.

43. Because attributes such as absence of commercials or premium sound quality presume that music is available, it is not meaningful to ask survey respondents to rate the importance of attributes that assume the availability of music. Indeed, asking respondents to allocate importance ratings to the music itself and aspects that enhance the music listening experience amounts to a mind game that reflects so-called "conversational norms," demand effects[16] (i.e., the respondents trying to figure out what they are expected to say), and framing effects (i.e., the words used to describe/frame each feature). For example, consistent with the

[15] Indeed, Dr. Hauser's underlying premise that commercial free adds value to content like music is not actually correct. Rather, it is the other way around: to consumers, commercials detract value from content like music.

[16] For a general discussion of conversational norms, see, for example, Norbert Schwarz (1996), "Cognition and Communication: Judgmental Biases, Research Methods and the Logic of Conversation," Hillsdale, NJ: Erlbaum.

well-established susceptibility of consumers to seemingly minor or irrelevant task variations,[17] the importance assigned to music is likely to differ significantly if it is described as "I can listen to music" (which is a rather ambiguous description) versus "having music channels." Similarly, when rating the importance of "commercial free," survey respondents can reasonably assume that the music itself is available, in which case, the importance rating of commercial free music reflects both the music and its commercial free feature. Asking respondents to parse separately the values of non-content attributes that they would normally consider only in association with music or other content therefore cannot reasonably be expected to produce the kind of specific dollar values reported in the Hauser Survey.

44. Moreover, because Dr. Hauser's survey assigns separate monetary value to attributes that have no separate and independent value and instead function to enhance the value of music, the Hauser Survey likely underestimates the importance of the music itself. For example, as indicated previously, commercial free music has no meaning unless there is music. One effect of offering music without commercials is that consumers will be able to listen to more music in a given time period, and the music aspect of the service should be more valuable as a result. Yet the effect of the Hauser methodology is to make music appear less valuable when it is offered without commercials, because some of the value of music is now ascribed by respondents to the "commercial free" attribute of the service. The result of this survey methodology is simply illogical.

45. Other music services such as Spotify, Last.fm, Rhapsody, and Pandora, offer their customers features that enhance the value of music. For example, like Sirius XM, these services also offer "commercial free," "premium sound quality," and "ubiquitous stations" available wherever Internet is accessible. Of course, had the Hauser Survey methodology been applied to these music services, the result would be to underestimate the value of music on those services, just as Dr. Hauser has underestimated the value of music on Sirius XM here.

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[17] See, for example, Itamar Simonson (1993), "The Effect of Survey Method on Likelihood of Confusion Estimates: Conceptual Analysis and Empirical Test," *Trademark Reporter*, 83 (3), 364-393.

DR. HAUSER'S SELECTION OF ATTRIBUTES IS PROBLEMATIC

46. *Second*, Dr. Hauser's selection of seven attributes/features that respondents were asked to consider was based on qualitative interviews conducted by the staff of Dr. Hauser's company, AMS (Hauser 2007 deposition, pp. 46-57). Such qualitative interviews represent an unreliable approach for identifying the key product/service attributes, in part because the interpretation of the findings from such unstructured interviews is highly subjective. In addition, the interviewers were aware of the purpose of the interviews, and contrary to standard practice, there are apparently no records (e.g., transcriptions) of the interviews that were presumably relied upon. Thus, this qualitative study provided no reliable basis for determining which and how many attributes should have been included in the survey subsequently used to produce the estimate of WTP for music.[18] The number of attributes tested could potentially have a significant effect on the survey results, because if Dr. Hauser had asked respondents about five attributes (for example) rather than seven, the values assigned to each attribute would likely have been higher. Indeed, in the Hauser Survey only 38 respondents (11%) and 28 respondents (8%) even had value left to allocate on the sixth and seventh attributes, respectively, so the effect of having seven attributes rather than five (for example) was clearly to lower the value of attributes like music by simply assigning $0.00 value to roughly 90% of responses in those last two positions. It is entirely unclear why Dr. Hauser chose not to employ a structured, quantitative approach that complied with accepted standards.

DR. HAUSER SHOULD HAVE INCLUDED FILTER QUESTIONS

47. *Third*, Dr. Hauser should have included "filter questions" in his survey to enhance the reliability of the responses. Specifically, before asking respondents about their WTP for different hypothetical bundles of features, the Hauser Survey respondents should have been

[18] Similarly, before the 2011 survey, the Hauser Survey was pretested using seven respondents, and these interviews were presumably relied upon to confirm that "the basic structure of the questions remained valid" (Hauser 2011 Written Direct Testimony, parag. 34).

asked if they had an opinion or believed that they could provide the requested WTP estimates. Such filter questions would have made it clear to the respondents that they were allowed to indicate that they were incapable of estimating their WTP for different, unrealistic feature bundles. With such filter questions, those who felt that their answers could not be relied upon would have been less likely to answer the questions, leading to more reliable estimates. It is also noteworthy that, in addition to not asking filter questions, the Hauser Survey respondents were not even told, just prior to answering the key questions pertaining to their WTP for different feature bundles, that they should not guess. This was a violation of basic survey principles, which was particularly significant in this case due to the difficulty of answering WTP questions (particularly with respect to unfamiliar feature bundles).

PRE-1972 MUSIC VALUE IS NOT RELIABLE

48. *Finally*, the Hauser Survey does not provide any reliable information regarding the WTP for pre-1972 music. Many of the same problems I discuss above apply to Question 9 in the Hauser Survey, which required respondents to allocate 100 points in terms of relative importance between music "recorded and released" prior to 1970 and music "recorded and released" since 1970. The meaning of the question was ambiguous. Dr. Hauser used the question to adjust (downward) the WTP estimate for music from 1972 and later.[19] It is unclear how respondents interpreted the question and whether the answers inform us with respect to the WTP for the music at issue. Suppose, for example, that a respondent relies on the percentage of time that s/he listens to pre-1970 versus post-1970 music; assume further that the pre-1970 music accounts for 20% of the music that consumer listens to. In that case, it appears safe to assume that the respondent would have been unlikely to subscribe to Sirius XM had it only played pre-1970 music. By contrast, it is reasonable to assume that had Sirius XM

[19] My testimony does not address whether any adjustment for pre-1972 music is necessary or appropriate. My point is simply that even if some type of adjustment were appropriate, the Hauser Survey provides no basis to make such an adjustment because the Survey results on this question are completely unreliable.

not played any pre-1970 music (representing just 20% of that consumer's music preferences), that limitation would not have dissuaded the consumer from subscribing to Sirius XM. In other words, putting aside the challenge of allocation 100 points between the two periods, the Hauser Survey was likely to greatly overstate the true impact of pre-1970 music on actual decisions to subscribe to the Sirius XM service.

49. Question 9 further inflated the value allocated to pre-1970 music because respondents were given just two periods (pre- versus post-1970) to divide the value of music between, instead of asking them to allocate music value in a way that would not make any given period stand out (e.g., allocate value for each decade starting from the 1960's or so). It is noteworthy that even more subtle variations of response formats can have a significant impact on obtained estimates. For example, respondents in one study[20] were asked about products (other than that currently being used) in one of two wordings:

(1a) In terms of the total number of products, how many other products have you tried?
1? 2? 3?

(1b) In terms of the total number of products, how many other products have you tried?
1? 5? 10?

The average number given by those asked the former version was 2.3, compared with 5.2 in the latter group. The format of Question 9 in the Hauser Survey created a much less subtle bias, because it made the pre-1970 period stand out and more prominent than it would have been had all relevant decades been treated equally.

50. Yet another serious problem of Q. 9 in the Hauser Survey was its unreasonable assumption that Sirius XM music listeners (and survey respondents) know or keep track of the dates in which music they listen to was "recorded or released." For example, many respondents might have assumed that music that had been composed before 1970 was also

[20] Cited in Itamar Simonson and Ran Kivetz (2012), "Demand Effects in Likelihood of Confusion Surveys," forthcoming in *Lanham Act Surveys* (edited by Shari Diamond and Jerre Swann and published by the American Bar Association).

"released" before 1970. As a result, the answers to Question 9 were unreliable indicators of the true value of music recorded and released before 1970. Moreover, I understand that copyright law is quite complicated and that many sound recordings that were originally created prior to 1972 may in fact receive new copyright protection if they are released in a remixed or remastered version at a later date. Needless to say, respondents are surely not able to identify the publication dates for the specific versions of the sound recordings that they hear on the Sirius XM service or to take that into consideration for the Hauser Survey.

CONCLUSION

51. The Hauser Survey suffers from many significant flaws, including most importantly Dr. Hauser's decision to randomize the order of features removed, which effectively presumed that all features were equally important. This methodology is inconsistent with the well-established tendency of consumers to evaluate product features in the order of their importance. As a result, the Hauser Survey methodology largely predetermined the Survey results. The Hauser Survey significantly underestimated the value of music, which Sirius XM's internal surveys repeatedly show to be the most important feature for the vast majority of subscribers. Despite its flaws, we can derive a range estimate based on the Hauser Survey results by assuming that most, though not all, Sirius XM subscribers consider music as the most important feature and that music has a positive value (greater than $0.00) for virtually all Sirius subscribers. The resulting music value range (using the Hauser Survey data) is between $10.37 and $5.75 (before adjusting for the Music Royalty Fee and the recent price increase). Considering that music is the most important feature for the majority of Sirius subscribers, the value of music for the average Sirius XM subscriber is much closer to the high end of that range.

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

Date: 7/2/2012

I. Simonson

Itamar Simonson

Exhibits Sponsored by Itamar Simonson

Exhibit No.	Description
SX Ex. 201-RR	Native Spreadsheet, New DB -- Total Listeners (SXM_CRB_DIR_00042587)
SX Ex. 202-RR	"Toyota Executive Checkpoint: March 31, 2009," Sirius XM Presentation Slides (SXM_CRB_DIR_00021755)
SX Ex. 203-RR	"Sirius XM Customer Satisfaction and Risk Assessment 2009 - Wave I Final Report," Sirius XM Presentation Slides (SXM_CRB_DIR_00042957)
SX Ex. 204-RR	"National Brand Tracking for XM Satellite Radio: An End-of-Year Analysis," Presentation Slides prepared by The Brandware Group (SXM_CRB_DIR_00042861)
SX Ex. 205-RR	Sirius XM Customer Satisfaction Study Report, November 18, 2011 (SXM_CRB_DIR_00045720)

APPENDIX A: Curriculum Vitae

Itamar Simonson

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EDUCATION

Ph.D.	Duke University, Fuqua School of Business Major: Marketing; May 1987
M.B.A.	UCLA, Graduate School of Management Major: Marketing; March 1978
B.A.	Hebrew University, Jerusalem, Israel Major: Economics, Political Science; August 1976

ACADEMIC POSITIONS

July 1987 - June 1993	University of California, Berkeley Haas School of Business Assistant Professor
July 1993 – Aug. 1996	Stanford Graduate School of Business Associate Professor of Marketing
Sept. 1996 – Aug. 1999	Stanford Graduate School of Business Professor of Marketing
Sept. 1999 – Present	Stanford Graduate School of Business Sebastian S. Kresge Professor of Marketing
1994 – 2000	Stanford Graduate School of Business Marketing Group Head
2000, 2004, 2012	Visiting Professor of Marketing: MIT; NYU; Columbia

AWARDS

- Best Article in the *Journal of Consumer Research* during the period 1987-1989.
- The 1997 O'Dell Award (for the *Journal of Marketing Research* article that has had the greatest impact on the marketing field in the previous five years).
- The 2001 O'Dell Award.
- Best Article in the *Journal of Public Policy & Marketing* during the period 1993-1995.
- The 2007 Society for Consumer Psychology Distinguished Scientific Achievement Award.
- The 2002 American Marketing Association Award for the Best Article in the area of Services Marketing.
- The Association for Consumer Research 1990 "Ferber Award."
- Runner-up/Finalist for the O'Dell Award: 1995; 2002; 2004; 2005; 2007; 2008; 2012.
- Finalist for the 2003 Paul Green Award (for the *Journal of Marketing Research* article with the greatest potential to contribute to the practice of marketing research).
- Runner-up for the 2005 *Journal of Consumer Research* Best Article Award.
- Winner in the Marketing Science Institute and Direct Marketing Association competition on "Understanding and Measuring the Effect of Direct Marketing."
- Runner-up for the 1993 *California Management Review* Best Article Award.
- National Science Foundation Grant (for 1996-8).
- Outstanding Reviewer Award, *Journal of Consumer Research*, 2005, 2009.
- Honorable Mention for the Sloan Executive Program Teaching Award (Fall 1995).
- Five years in the Berkeley School of Business "6-Point Club" (instructors with teaching ratings of 6 or more on a 7-point scale).

TEACHING EXPERIENCE

Stanford University:

Marketing Management (for MBAs and the Sloan Executive Program)
Marketing & Competition (for MBAs)
Marketing to Businesses (for MBAs)
Technology Marketing (for MBAs)
Research Methods for Studying Buyer Behavior (a Ph.D. Course)
Decision Making (a Ph.D. Course)
Buyer Behavior (a Ph.D. course)

University Of California, Berkeley:

Marketing Management (for MBAs - day and evening programs)
Consumer Behavior and Decision Making (a Ph.D. Course)
Various Marketing Executive Education Programs.

BUSINESS EXPERIENCE

October 1978-August 1983 Motorola, Inc.
Worked in an international subsidiary; responsibilities included marketing research and customer analysis, definition of new products, pricing, analysis of sales force performance, competitive intelligence, and forecasting. Conducted studies of markets for various communications products. Last two years served as Product Marketing Manager for communications products.

CONSULTING:

Consulted for clients from a wide range of industries such as technology, communications, services, and manufacturing sectors.
Expert witness assignments: trademark infringement, deceptive advertising, surveys, consumer behavior, marketing management, brand equity, retailing, distribution, assessment of demand drivers and feature value, and other marketing issues.

PUBLICATIONS

Itamar Simonson, James Bettman, Thomas Kramer, and John Payne (forthcoming), "Comparison Selection: An Approach to the Study of Consumer Judgment and Choice," *J.O. Consumer Psychology* (Dialogue section).

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ARTICLES UNDER REVIEW

Itamar Simonson and Emanuel Rosen, "Consumer Decision Making in an Information-Rich Socially-Intensive Environment."

Leilei Gao, Yanliu Gao, and Itamar Simonson, "Tipping Points in Consumer Choice: More than Two Is Where Collections Start."

Leilei Gao and Itamar Simonson, "Buying First and Choosing First: The Impact of Decision-Making Order on Consumer Choice"

Leilei Gao and Itamar Simonson, " The Role of Decision Order and Product Assortment in Consumer Purchase Likelihood."

Aner Sela, Itamar Simonson, and Ran Kivetz, "Beating the Efficiency Frontier: The Allure of Opportunistic Value."

Aner Sela and Itamar Simonson, "Perceptions of Value: The Effect of Context, Mindset, and Deliberation."

C. Ofir, I. Simonson, O. Grossman, A. Hasdia, and M. Rachamim, "The Impact of Ethnic Minority Solidarity on Service Evaluations."

DOCTORAL DISSERTATIONS CHAIRED

Ravi Dhar (Chaired Professor, Yale U.)
Aimee Drolet (Chaired Professor, UCLA)
Stephen Nowlis (Chaired Professor, Washington U., St. Louis)
Ziv Carmon (Professor, INSEAD)
Ran Kivetz (Chaired Professor, Columbia U.)
Donnel Briley (Professor, U.O. Sydney)
Thomas Kramer (Tenured Associate Professor, U.O. South Carolina)
Wendy Liu (Assistant Professor, U.O. Calif., San Diego)
Sanjay Sood (Tenured Associate Professor, UCLA)
Song-Oh Yoon (Assistant Professor, Korea U.)
Michal Maimaran (Visiting Assistant Professor, Kellogg School).
Leilei Gao (Assistant Professor, Chinese University, Hong Kong).
Aner Sela (Assistant Professor, U. O. Florida)
Jonah Berger (Assistant Professor, Wharton School, U.O. Penn.)

EDITORIAL ACTIVITIES

Editorial Boards: *Journal of Consumer Research, Journal of Marketing Research, Journal of Consumer Psychology, Journal of Marketing, Journal of Behavioral Decision Making, International Journal of Research in Marketing, Review of Marketing Research, Marketing Letters, J.O. Academy of Marketing Science, Review of Marketing Research.*

Reviewer for *Marketing Science, Journal of Economic Behavior and Organization, Science, Management Science, Journal of Retailing and Consumer Services, Journal of Marketing, Journal of Retailing, Organizational Behavior and Human Decision Processes, Journal of Experimental Psychology, Psychological Review, Psychological Bulletin, Journal of Personality and Social Psychology, Psychological Science, California Management Review, Journal of Economic Psychology, European Journal of Social Psychology, Journal of Judgment and Decision Making, Medical Decision Making,* and National Science Foundation.

PROFESSIONAL AFFILIATIONS

Association for Consumer Research
Judgment and Decision Making Society
American Psychological Society

PERSONAL DATA

Birth Date: December 25, 1951

Marital Status: Married, 2 children

APPENDIX B

Cases in which Dr. Itamar Simonson Testified as an Expert at Trial (including written expert reports submitted to the court) or by Deposition in the Past Four Years

1. Ann Castello et al. v. Allianz Life Insurance Company of North America and LifeUSA Insurance Co. (State of Minnesota, Country of Hennepin; MC 03-20405) (settled before trial).
2. Tokyo Broadcasting System v. ABC, Inc. and Endemol USA (Cent. Dist. of CA; CV 08-06550-MAN) (deposition).
3. Environmental World Watch, Inc. v. Procter & Gamble Distributing Co. et al. (also referred to as, State of California v. Frito Lay et al.) (Superior Court of the State of California for the County of Los Angeles; Case No.: 337618) (deposition).
4. Johnson & Johnson (previously Pfizer Inc.) v. Actavis, Inc. (S.D.N.Y. 06CV 8209) (deposition).
5. Tamares Las Vegas Properties v. The El-Ad Group (Dist. Court, Clark County, Nevada; case # A546046) (trial).
6. Kargo Global, Inc. v. Advance Magazine Publishers, Inc. (SDNY; 06 CV 0550) (deposition).
7. The Sugar Association v. McNeil Nutritionals (Central Dist. of Calif., West. Div., CV 04-10077 DSF) (deposition).
8. Champagne Louis Roederer v. J. Garcia Carrion, S.A. and CIV USA (US Dist. of Minnesota; 06-CV-213 JNE/SRN) (trial).
9. Johnson & Johnson v. The American Red Cross et al. (S.D.N.Y. 07 CV 7061) (deposition)
10. American Airlines, Inc. v. Google Inc. (No. Dist. Texas; 4:07-CV-487-A) (deposition)
11. Emerging Vision, Inc. v. For Eyes Optical (S.D.N.Y; 06 CV 5823) (deposition).
12. Cricket Communications, Inc. v. Hipcricket, Inc. (USDC, West. Dist. of Washington; 2008-CV-00908 MOP) (deposition)
13. National Envelope Corp. v. American Pad & Paper (S.D.N.Y; 1:06-CV-12988-CSH) (deposition)
14. Hardy Life LLC v. Nervous Tattoo, Inc. et al. (USDC, Cent. Dist. of CA; CV08-03524-PA).
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18. Wisconsin Alumni Research Foundation v. Intel Corp. (West. Dist. of Wisconsin; 08-c-78-C) (deposition).

19. Hansen Beverage Company v. CytoSport, Inc. (Cent. Dist. of CA.; CV-09-0031 VBF) (deposition)

20. THOIP v. The Walt Disney Company et al. (S.D.N.Y., 08 Civ. 6823 (SAS) (deposition)

21. Vulcan Golf et al. v. Google Inc. et al. (N.D. of IL, East. Div.; 07 CV3371).

22. In the Matter of the Motor Fuel Temperature Litigation (Dist. of Kansas; 07-MD-1840-KHV) (deposition).

23. The Hershey Company v. Promotion in Motion (Dist. of NJ; 07-CV-1601) (trial)

24. Individual Network LLC v. Apple, Inc. (East. Dist. of Texas, Marshall Div., 2:07CV 158).

25. Hansen Beverage Company v. Vital Pharmaceutical (South. Dist. of CA; 08CV-1545 IEG) (deposition)

26. Keurig, Incorporated v. Sturm Foods, inc. (Dist. of Del.; 10-cv-008411490) (deposition)

27. Arbitration between Bank of America Corp. (and FIA Card Services) and L.L. Bean (arbitration).

28. People's United Bank v. PeoplesBank (US Dist. of CT; 08-cv-01858). (trial)

29. Veronica Gutierrez et al. v. Wells Fargo Bank (N. Dist. of CA; c 07-05923 WHA) (trial).

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39. Sara Lee Corp. v. Kraft Foods, Inc. (North. Dist. of IL; 09 C 3039). (trial)

40. Aurora World, Inc. v. Ty, Inc. (Cent. Dist. of CA; 09-08463 MMM). (trial)

41. Gucci America, Inc. v. Guess?, Inc. (S.D.N.Y.; 09-cv-4373).

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43. Ashley Furniture Industries v. American Signature, Inc. (So. Dist. Ohio, E. Div.; 1-427) (deposition)

44. Gerber Scientific International v. Roland DGA Corp. (Dist. of CT; 3:06-cv- 02024-CFD) (deposition)

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APPENDIX C: MATERIALS RELIED UPON

ARTICLES AND WORKING PAPERS

Bettman, James and C. Whan Park (1980), "Effects of Prior Knowledge and Experience and Phase of the Choice Process on Consumer Decision Processes: A Protocol Analysis," *Journal of Consumer Research*, 7, 234-48.

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TESTIMONY

Corrected Written Direct Testimony of John R. Hauser (2011)

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Deposition of John R. Hauser (March 2, 2012)

Deposition of John R. Hauser (August 11, 2007)

2012 CRB Hearing Transcript (June 12, 2012) (Testimony of John R. Hauser)

SIRIUS XM PRESENTATIONS, REPORTS AND SURVEYS PRODUCED DURING DISCOVERY

SXM_CRB_DIR_EXP_00000026

SXM_CRB_DIR_EXP_00000027

SXM_CRB_DIR_EXP_00000028

SXM_CRB_DIR_EXP_00000029

SXM_CRB_DIR_00021755

SXM_CRB_DIR_00042587

SXM_CRB_DIR_00042597

SXM_CRB_DIR_00042684

SXM_CRB_DIR_00042861

SXM_CRB_DIR_00042957

SXM_CRB_DIR_00043860

SXM_CRB_DIR_00045720

APPENDIX D: Hauser Survey Statistics

Average value of music when given opportunity to value music

Music Value	Obs	Mean
Position 1	43	10.36953
Position 2	34	8.447941
Position 3	35	5.378857
Position 4	19	4.936842
Position 5	18	3.663333
Position 6	6	4.29
Position 7	7	3.134286
Overall	162	6.967901

Number of respondents not asked about music	186
Number of respondents with 0 value left after music	294
Number of respondents who valued music at 0	11
Average percentage of value awarded to music	81.46%

Number of respondents with value left to allocate at each position (not null)

Position 1	348	100%
Position 2	256	74%
Position 3	176	51%
Position 4	102	29%
Position 5	63	18%
Position 6	38	11%
Position 7	28	8%

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

REBUTTAL TESTIMONY OF

GEORGE S. FORD

President, Applied Economic Studies

PUBLIC VERSION

Witness for SoundExchange, Inc.

WRITTEN REBUTTAL TESTIMONY OF GEORGE S. FORD

Introduction

1. In my written direct testimony, I concluded that SoundExchange's proposed royalty rate for the PSS, which increased over the coming rate term from 15% to 45%, was reasonable in light of available marketplace evidence about the percentage-of-revenue royalty rates found in agreements for a variety of digital music platforms. I further concluded that the recommended royalty rate from SoundExchange did not need to be adjusted on the basis of the four statutory policy factors set out in 17 U.S.C. § 801(b). In an effort to minimize disruption, SoundExchange's rate proposal included a percent-of-revenue royalty that was among the lowest found in market agreements for the use of their property, it includes a percent-of-revenue royalty rate structure that is presently used in the industry, and the rate adjustment is spread over a five-year transition period.

2. I remain of the opinion that SoundExchange's original rate proposal is reasonable in light of marketplace evidence. At the same time my direct testimony was filed, however, Music Choice submitted testimony related to its proposed rate for the PSS. I have been asked by counsel for SoundExchange to respond to Music Choice's written testimony (including supporting documents) and proposed rate.

Overview and Summary of Conclusions

3. Music Choice's rate proposal of 2.6% of revenues is detailed in the testimony of Music Choice CEO Mr. Del Beccaro. His argument is as old as it is simple – the royalty rate for the sound recording performance right should be half the musical works rate. Mr. Del Beccaro's theory is based entirely on his interpretation of the 1998 decision of the Librarian of Congress. He provides no economic or financial analysis to support the proposal and no marketplace agreements are provided which link the proposed royalty to a market rate. While Section 801(b) does not require a pure market rate outcome, the Judges have previously determined that the selection of rates should begin with a legitimate market rate.

4. Allegedly supporting the 2.6% rate and the use of the musical works as a benchmark is the testimony of Music Choice's economic expert, Dr. Gregory Crawford. According to Dr. Crawford, under no circumstances should the PSS royalty for the performance of sound recordings be greater than Music Choice's musical works royalty. More accurately, Dr. Crawford argues that under no circumstance should the royalty for the performance of sound recording be greater than 3.04%, which is purportedly (but not actually) Music Choice's profit rate on its residential audio service. Dr. Crawford argues that the market-based royalty rate (absent compulsion) would fall in the range of 0.6% to 2.43%, which is below Music Choice's proposal and is orders of magnitude below any royalty rate observed in marketplace transactions. Neither Mr.

Del Beccaro nor Dr. Crawford provide a single example of a market negotiated royalty rate for the performance right that is equal to or below the musical works rate.

5. As set forth in more detail below, I believe that Music Choice's testimony and rate proposal are flawed in the following ways:

a. Music Choice is a heavy user of sound recordings, as reflected in the amount of time that cable subscribers spend listening to the company's music channels. The intensity of usage must be taken into account in establishing the appropriate royalty rate, and Dr. Crawford failed to do so.

b. Dr. Crawford's analysis rests on a benchmark – the royalty rate paid by Music Choice for the performance of musical works – that has no economic foundation and no empirical support in market transactions. The musical works rate has been repeatedly rejected by this Court as an appropriate benchmark for setting sound recording performance royalties under statutory licenses. The musical works rate remains a poor benchmark and Dr. Crawford's reliance on it is misplaced.

c. Dr. Crawford's application of the Nash Bargaining Solution to the question of the appropriate royalty rate for the PSS is improper. Specifically, the Nash methodology provides a means of dividing the "surplus", i.e., the net benefits, of a transaction, not the revenues generated as a part of that transaction (as does a royalty rate). The shares of surplus from a transaction may look nothing like the shares of revenues from the same transaction. Moreover, his argument rests on a faulty premise regarding the promotional effect of Music Choice on the sale of sound recordings and the resulting impact of that purported effect on the owners of sound recordings and the owners of musical works.

d. Dr. Crawford fails to adequately account for the effects of Music Choice's ownership structure. This structure has a distorting effect on the revenue that Music Choice obtains for its services. Because Dr. Crawford relies on Music Choice's financial performance as corroborative evidence of his conclusion that the PSS royalty rate should be less than the musical works royalty rate, careful consideration of the effects of Music Choice's ownership structure is critical to assessing the reasonableness of Music Choice's proposed rate.

e. The financial analysis conducted at Dr. Crawford's direction, and that he claims corroborates the conclusions from the Nash Bargaining

Solution, present a misleading picture of Music Choice's financial condition. Substantial expenses unrelated to Music Choice's residential audio service, which are not a part of this proceeding, are included in Dr. Crawford's analysis, thus deflating the calculated profit margin. This improper measure of profits results in a recommended royalty that will place copyright owners and performers in the position of subsidizing the growth of Music Choice's video business while sharing in none of the projected growth of revenues from that business.

In light of these issues, as detailed below, Dr. Crawford's testimony has no probative value and Music Choice's proposed royalty rate should be rejected.

The Intensity of Usage by Music Choice Is Critical To Setting the Royalty

6. Both parties initially proposed a royalty rate expressed as a percentage-of-revenue. As discussed in my direct testimony, one problem with a percentage-of-revenue metric is that it can allow a heavy user of sound recordings to pay a low royalty whenever the service generates little revenue, regardless of the value of the service in question. Music Choice appears to exemplify that situation. The following approximations of Music Choice's proposed royalty rate expressed as a per-subscriber or per-performance fee provide a critical perspective on this issue that is useful to fully appreciate the effects of the current low rate paid by the PSS and the potential adoption of Music Choice's proposed low rate.

7. In 2012, Music Choice (and the PSS generally) pays a royalty rate for the sound recording performance right of 7.5% of gross audio revenues on a monthly average revenue per cable subscriber receiving its service of about [[redacted]].[1] Per household receiving its service, the royalty payment for the performance right is [[redacted]] per month. Survey evidence submitted to the record by Music Choice suggests that of cable subscribers using the Music Choice service, each listens to an average of [[redacted]] per week, or [[redacted]] per month.[2] Assuming 15.375 songs per tuning hour,[3] each subscriber receiving the Music Choice service listens to [[redacted]] songs per month (or [[redacted]]

[1] Corrected Written Direct Testimony of David J. Del Beccaro at 12 (PSS Trial Ex. 1) ("Del Beccaro Testimony"); Corrected Written Direct Testimony of Gregory S. Crawford, PhD at 43 ("Crawford Testimony" (PSS Trial Ex. 4).

[2] Ipsos OTC Media CT, Music Choice Music Channels Listenership Study 2011 at 10, 14 ("Ipsos Survey") (MC 38).

[3] Final Rule and Order, *Digital Performance Right in Sound Recordings and Ephemeral Recordings*, Docket. No. 2005-1 CRB DTRA, 72 Fed. Reg. 24084, 24096 (May 1, 2007) ("*Webcasting II*").

ATH per month), on average.[4] Evidence suggests that this intensity of use is within the range of some webcasters.[5]

8. Translating the royalty into a rough per-play approximation, Music Choice is presently paying royalties of [[redacted]] per play (and has proposed to pay only [[redacted]] per play). This is an incredibly low royalty payment for the use of copyrighted works. In 2012, non-interactive Commercial Webcasters, for example, pay $0.0020 per play,[6] a rate that is [[redacted]] times larger than that presently paid by Music Choice to the record labels for their copyrighted material (and [[redacted]] times larger than its proposed rate). Even at the current rate of 7.5% of revenue, Music Choice and the PSS are paying royalty rates an order of magnitude lower than other parties, many of which are competitors of Music Choice and the PSS. Direct competitors of Music Choice in the market for cable audio services such as Galaxie and SonicTap (referred to as "CABSATs") pay no less than [[redacted]] times more (on average) than Music Choice presently pays for the same or similar use of property and in some cases the CABSATs pay no less than [[redacted]] times more than Music Choice pays (on average) for the same set of rights.[7]

9. Lowering the royalty payment to 2.6% of audio revenues, as Music Choice proposes, exacerbates the already profound rate advantages of the company. At 2.6% of revenue, the average royalty payment is [[redacted]] per subscriber month and [[redacted]] per play. In other words, under the Music Choice proposal, [[redacted]]. For over half of the cable subscribers receiving Music Choice's service (those buying service from its Partners), the per-subscriber royalty would be only [[redacted]] per month and the per-play royalty [[redacted]] per play.[8] Close competitors such as Galaxie and SonicTap must pay over [[redacted]] as much per subscriber as would Music Choice for the bulk of its licensed subscribers.

10. These comparisons of averages are disturbing enough, but they ignore the sizeable variation in monthly subscriber fees received by Music Choice cable operators. While Music Choice's average licensing fee to its cable company customers is about [[redacted]] per subscriber month, this average conceals an extremely wide range of licensing fees charged by Music Choice. On one end of the range are Music Choice's three cable

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4 The average user of the service listens to [[redacted]] songs per month and only [[redacted]] of cable subscribers that receive Music Choice use the service. *See* Ipsos Survey at 10, 14.

5 *See* Amended and Corrected Testimony of Michael D. Pelcovits at 31-32, Docket No. 2009-1 CRB Webcasting III (Feb. 16, 2010) (plays per user of 450-615); *see also* Written Direct Testimony of Michael at 45, Docket No. 2005-1 CRB DTRA (*Webcasting II*) (Oct. 31, 2005) (estimates of 32-45 ATH per user); *see also* Written Rebuttal Testimony of Janusz Ordover at ¶ 62, Docket No. 2011-1 CRB PSS/Satellite II (July 1, 2012) (estimating plays per subscriber for Pandora).

6 37 C.F.R. § 380.3(a)(1).

7 37 C.F.R. § 383.3(a).

8 This rate is based on the Partner per-subscriber rate of [[redacted]].

industry Partners, who pay only [redacted] per subscriber, per month. And on the other end of the range, well over half of Music Choice's direct customers – the *cable systems* that carry Music Choice – pay a licensing fee of [redacted] or more per subscriber, per month. There is no evidence suggesting, however, that the residential cable subscribers (and therefore, the end-users of Music Choice) of the cable systems that pay the highest licensing fee to Music Choice use the service any more or less intensively than the subscribers of the cable systems paying the lowest licensing fee.

11. This distribution of license fees also reveals the profound effect the intermediary role has on royalty payments when a percent-of-revenue rate is used from transactions involving retail (not wholesale) transactions. The fact that over half of the cable systems that carry Music Choice pay about [redacted] per subscriber month in licensing fees suggests (by economic logic) that the Music Choice service is worth at least [redacted] per month in the retail market. If not, then a profit maximizing cable operator would not be willing to pay [redacted] for the input. This minimum retail value assumes no markup by the cable operator, which is a highly conservative assumption. For example, Comcast, the nation's largest cable operator, receives about $2.92 in retail video revenues for every $1 of programming,[9] suggesting that the expected retail value of Music Choice is about [redacted] per month.[10] Under the standard marketplace agreement, the proper royalty for a music channel service could be about [redacted] per subscriber month.[11] Yet, in actuality, the percent-of-revenue royalty rate is applied to revenue of only [redacted] per subscriber month.

12. With royalties calculated as a percent-of-revenue, the difference in royalties per cable subscriber is likewise substantial. At the proposed 2.6% rate, SoundExchange would receive [redacted][12] per month for some of its licensed subscribers but only [redacted][13] per month from others, a [redacted] difference for a nearly identical use of rights. On a per-play basis, Music Choice's partners, who pay a very low license fee to Music Choice generate only [redacted] per play. To put that rate in perspective, a non-interactive Commercial Webcaster pays a royalty rate [redacted] per play than would Music Choice for the plays enjoyed by the Music Choice Partners' residential subscribers.

13. Under current regulations, both Galaxie and Sonic Tap, firms trying to compete directly with Music Choice as a service bundled by the cable systems with video programming, can pay no less than $0.0159 per subscriber per month (or $0.0265 if the

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9 Comcast Form 10-K, Year 2009, at 24, 27.

10 As noted in my direct testimony, I was able to find two instances of a standalone Music Choice Tier including XIT Communications ($2.75 per month) and Kalona Cooperative Telephone Company ($3.95 per month).

11 As shown in my Direct Testimony, the typical royalty for labels is about 45-60%.

12 The calculation is: [redacted].

13 The calculation is: [redacted].

music channel service is bundled with the CABSATs' other services).[14] It is difficult to imagine how these entrants can compete long-term with a provider with such a huge cost advantage. At the bundled-service royalty rate, the CABSATs pay a royalty rate ($0.0265 per subscriber month), which is essentially equal to [[redacted]], and the bundled-service CABSAT royalty rate is [[redacted]] than the royalty rate currently paid by Music Choice based on the deals it has with its Partners.[15] In a market transaction, I would expect the record labels to make an effort to attenuate the large differences in royalties for the similar use of rights, perhaps by using a minimum per-subscriber fee or other rate element.

14. Such a colossal cost advantage for Music Choice arising from a regulated rate is expected to have a profound effect on competition and innovation in the digital music industry. Both the present and proposed arrangements for the PSS greatly disadvantages copyright users paying market rates as well as those paying regulated rates that are trying to compete with the PSS for cable operator and residential customers.

The Musical Works Rate Is an Inappropriate Benchmark

15. The primary justification for Music Choice's rate proposal is presented in the testimony of David Del Beccaro. Mr. Del Beccaro presents the exact same 2.6% rate that Music Choice offered in the last proceeding (which ultimately settled) and on the exact same theory.[16] Mr. Del Beccaro's theory is that in 1998 the Librarian of Congress applied the proper method of setting the PSS rate – using the sum of the rates that Music Choice pays for musical works as "the highest possible reasonable rate for the equivalent digital sound recording performance license."[17] The Librarian then set the sound recording royalty at 65% of the musical works rate based, according to Mr. Del Beccaro, on consideration of "the various evidence relevant to the policy objectives contained in the statute."[18] In Mr. Del Beccaro's opinion, the musical works rate remains the proper benchmark for the sound recording performance rate, but the rate should be reduced because: (1) the Librarian of Congress over-estimated the actual musical works rate when initially setting the sound recording rate in 1998; and (2) changed circumstances justifies setting the sound recording royalty at [[redacted]] rather than

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14 37 C.F.R. § 383.3(a).

15 Music Choice pays 7.5% of [[redacted]] per subscriber month, or [[redacted]] per subscriber month.

16 *See* Written Direct Testimony of David J. Del Beccaro at 4-8, Docket No. 2006-1 CRB DSTRA (Oct. 30, 2006) (SX Ex. 351-RP). In fact, it appears that much of Mr. Del Beccaro's testimony in this proceeding is word-for-word identical to his testimony in that proceeding, despite the passage of five years between the two proceedings.

17 Del Beccaro Testimony at 9.

18 Del Beccaro Testimony at 10.

65% of the musical works rate based on Mr. Del Beccaro's interpretation of the statutory policy factors.[19]

16. Dr. Crawford also concludes that the most appropriate benchmark for setting the PSS royalty rate is the royalty that Music Choice pays for the performance of musical works.[20] Music Choice, of course, is not the first service and Dr. Crawford is not the first economist to argue that the musical works rate is the best benchmark for setting the royalty for sound recording statutory licenses.[21] This Court, however, has repeatedly rejected the musical works rate as a meaningful benchmark and for a sound economic reason.[22] Section 801(b)(1)(B) requires the Judges to set a reasonable rate and to consider whether or not the rates they set provide for a fair return to the copyright owner. The term "fair return" implies, among other things, that seller revenues exceed seller costs. If music is to be created in the future, which is the explicit purpose of the Copyright Law, then the record labels must receive revenues sufficient to cover their costs and provide for an adequate return.

17. As recognized previously by the Judges, the royalty rate for the sound recording performance right is many multiples of the rate for the musical works right in marketplace transactions. For the percent-of-revenue rate element, the royalty for performance rights is typically six to twelve times more than the musical works rate.[23]

18. The large differences in royalty rates observed in marketplace transaction reflect the sizeable differences in the costs and risks incurred by the various parties in creating and distributing musical performances.[24] In recognition of these large differences in observed rates, the Judges have repeatedly rejected the musical works rate as a meaningful benchmark for the performance rights. Dr. Crawford has failed to adequately explain why the musical works rate should be found to be an appropriate benchmark for the PSS despite repeated rejections in other ratesetting proceedings.

Dr. Crawford's Application of the Nash Bargaining Solution Is Flawed

19. Dr. Crawford justifies his use of the musical works rate as a benchmark and defends his resulting proposal for a very low royalty rate for the sound recording performance right used by the PSS on the basis of his application of the economic concept of a Nash Bargaining Solution. The Nash Bargaining Solution is a highly

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19 Del Beccaro Testimony at 9-10.

20 6/12/12 Tr. 1853:11-14 (Crawford); Crawford Testimony at ¶ 74.

21 *Webcasting II*, 72 Fed. Reg. 24084, 24094-95; Final Rule and Order, *Determination of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Radio Services*, Docket No. 2006-1 CRB DSTRA, 73 Fed. Reg. 4080, 4089-90 (Jan. 24, 2008) ("*SDARS I*").

22 *Webcasting II*, 72 Fed. Reg. at 24094-95; *SDARS I*, 73 Fed. Reg. at 4089-90.

23 *See* Written Rebuttal Testimony of Aaron Harrison at 13-14.

24 *See, e.g.*, Written Rebuttal Testimony of Charles Ciongoli at 5, Docket No. 2006-1 CRB DSTRA (MC 59).

abstract theoretical concept in which bargaining outcomes are required to satisfy a number of axioms including: 1) invariance to affine transformations; 2) Pareto optimality; 3) independence of irrelevant alternatives; and 4) symmetry.[25] The purpose of Nash's theory was to evaluate how the *surplus* from a transaction will be divided among participants. Assuming the parties to the transaction have equal bargaining power and both have something to gain if a deal is reached, the surplus from the transaction will be split evenly between the buyer and seller. As John Nash states in his seminal paper setting forth the theory, "the solution has each bargainer getting the same money profit."[26] Of course, if these assumptions are violated (say, unequal bargaining power), the even split of the surplus need not occur.

20. The first problem with the application of Nash's theory to the determination of a royalty rate is that a royalty does not split surplus, it splits revenues. An even split of surplus does not imply an even split of revenues. Another problem is that Nash theory also requires that "no action can be taken by one of the individuals without the consent of the other."[27] Given that this case involves a compulsory license, Nash's solution applied to this case is of questionable relevance. Certainly, there may be a Nash solution under compulsion, but it looks nothing like a market outcome, nor would it look like the "reasonable" and "fair" outcomes contemplated by Copyright law. As Nash states, "We shall consider only those cases in which there is a possibility that both individuals could gain from the situation."[28]

21. Finally, Dr. Crawford's application of the Nash Bargaining Solution is unsound as a result of his determination that there is a "promotional" effect of the PSS services, and that this promotional effect leads to a lower royalty rate for SoundExchange than for the rights holder of the musical work. Specifically, Dr. Crawford asserts that the PSS service promotes CD sales and that the record labels (as owners of the sound recordings) earn higher surplus from such sales than do the publishing companies (as owners of the musical works). As such, the labels receive a disproportionate gain from the promotional effect, and this additional gain implies a lower surplus from the transactions with the PSS. Because of this lower surplus from the transactions between the sound recording owners and the PSS, Dr. Crawford concludes that the Nash Bargaining Solution implies that the labels should receive a lower royalty than the copyright owners of the musical work. Even if this argument was correct, the split of surplus says nothing particular about the split of revenues, and royalty rates split revenues. This conclusion is based on (at least) two additional faulty premises: 1) Dr. Crawford relies on exceedingly weak evidence to conclude that there is a promotional effect; and 2) Dr. Crawford assumes that the record labels' higher revenues in the sale of CDs is a result of earning a higher surplus. I examine these four assumptions in turn.

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25 J. Nash, *The Bargaining Problem*, 18 ECONOMETRICA 155-162 (1950).

26 *Id.* at 162.

27 *Id.* at 155.

28 *Id.* at 158.

The Evidence Does Not Support Dr. Crawford's Conclusion About the Promotional Benefit of the PSS

22. A cornerstone of Dr. Crawford's analysis is that Music Choice (and by extension the PSS generally) promotes of the sale of CDs and digital downloads. Dr. Crawford's evidence on the promotional effect of Music Choice is anecdotal, relying heavily on surveys which purport to show that Music Choice's customers typically purchase more CDs than the average person. Dr. Crawford conducted no quantitative analysis of his own to demonstrate a promotional effect.[29] As an initial matter, none of the surveys relied on by Dr. Crawford claim to establish a causal relationship that implies the more hours listened to Music Choice, the more CDs someone purchases. Dr. Crawford acknowledges this fact.[30] Thus, Dr. Crawford's argument appears to confuse correlation with causation.

23. A simple numerical example illustrates the difference between correlation and causation. Say there are two types of people – those that like music and those that do not. In the absence of the PSS, say that those who like music purchase 10 CDs per year. Those who do not like music purchase none. If a PSS-style music channel service is introduced to the market, then presumably only those who like music will use the service. Suppose, for example, that those who like music and listen to the music channel service reduce their consumption to 5 CDs per year since the music channels meet part of their demand for listening, while those who do not like music continue to purchase no CDs. Comparing purchases across those who listen to a PSS and those who do not would reveal that PSS listeners purchase more CDs than do non-listeners. As the example shows, however, this difference does not indicate a promotional effect, but quite the opposite – the music channel services reduces the consumption of CDs by half.[31] Plainly, observing a difference in average consumption levels does not imply a causal effect.

24. There is some evidence to suggest that this confusion between correlation and causation is applicable here. One survey relied upon by Dr. Crawford suggests that Music Choice listeners are large consumers of all types of media. Music Choice listeners are more likely than the average person in the U.S. population (of a specified age group either 12 years or older, or 18 years or older) to [[redacted]

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[29] 6/13/12 Tr. 1912:18-20 (Crawford) ("I also would have liked to quantify the promotional benefit, and I, again, did not have the data available.").

[30] 6/13/12 Tr. 1892:8-15 (Crawford) ("I worried quite frequently about the distinction between correlation and causation.").

[31] Academic research on the question of promotion and substitution in the music industry has focused on similar questions. *See, e.g.*, S. Liebowitz, The Elusive Symbiosis: The Impact of Radio on the Record Industry, 1 Review of Economic Research on Copyright Issues 93-118 (2004) (SX Ex. 352-RP); S. Liebowitz, Don't Play It Again Sam: Radio Play, Record Sales, and Property Rights, CAPRI Publication 06-02 (Jan. 5, 2007) (SX Ex. 353-RP); Y. Wind, A Krieger, Beyond Product Substitution: The Impact of Satellite Radio on Sales of CDs and Music Downloads (Sept. 11, 2007) (SX Ex. 354-RP)

[redacted].[32] Given the patterns of consumption revealed by this survey, the risk of confusing a causal effect with correlation is plainly very high.[33]

25. In fact, this evidence suggests a threat of substitution as much or more as it does a promotional effect. Given that there are only 24 hours in a day, and Music Choice's own survey indicates that its average user listens for about [[redacted]],[34] it is unclear when the customer would have time to listen to a CD. In an ideal situation, the record labels would prefer that Music Choice's customers were of the type that did not regularly purchase CDs. If these low music purchasers chose to listen to music in an alternative format, such as Music Choice, the total number of revenue-generating customers increases, thereby increasing total royalties. If Music Choice's customers are those that typically purchase a lot of CDs or consume music in other forms that pay higher royalties than the PSS, then the threat of substitution is very significant, since the customer base using Music Choice is an otherwise healthy source of revenue in other markets. Moreover, the record labels would obviously prefer to have a person listen to [[redacted]] hours of music using the service of a commercial webcaster, or even a CABSAT's service, than using the very low royalty generating Music Choice service.

26. Other evidence used to support a promotional effect from the Music Choice service is letters and emails to the company from various record labels thanking it for playing their music. Mr. Williams' testimony addresses this point, as does Dr. Crawford.[35] Many of the examples provided by Mr. Williams were apparently over 6 years old, and others were *directly solicited by Music Choice in preparation for this case.*[36] Even Dr. Crawford admits that if the examples "Mr. Williams provided as evidence in his testimony were solicited, then I think that would certainly call into question the

[32] Simmons National Consumer Study ("Simmons Survey") (MC36). In some cases, the survey analysis deals with persons age 12+ and in others age 18+.

[33] Another survey relied on by Dr. Crawford refers to Music Choice listeners as reflecting "the multi-platform behavior of those who spend more time listening to music." The NPD Group, NARM Research Report: Consumers & Music Discovery at 44 (November 2011) (MC 56).

[34] Ipsos Survey at 14.

[35] Written Direct Testimony of Damon Williams at 4-13 ("Williams Testimony") (PSS Trial Ex. 3); Crawford Testimony at ¶ 59.

[36] 6/12/12 Tr. 1713:6-20 (Williams) (acknowledging that "most of these, especially some of the newer ones, were" solicited for purposes of this proceeding); *see also* 6/12/12 Tr. 1718:8-11 (Williams) (admitting that the majority of the plaques that Music Choice cites as evidence of promotion were previously included in Mr. Williams's testimony from 2006); 6/12/12 Tr. 1731:15-1733:11 (Williams) (identifying the examples of promotional efforts that were also included in Mr. Williams's testimony from 2006).

evidence that it would provide about promoting the records."[37] Moreover, much of Mr. Williams' testimony is focused on discussing promotional activities primarily related to Music Choice's video service, not its residential audio service which is the aspect of its business governed by the PSS statutory license.[38]

27. There is, moreover, an independent reason why labels would want Music Choice to play from a label's catalog, regardless of whether Music Choice actually promotes additional sales. The more of a label's catalog played by Music Choice relative to other label's music, the greater the share of the royalty pool received by the label. Thus, even if Music Choice (or the PSS generally) do not promote sales overall, the play of a particular label's catalog increases the label's revenue based on the share of the royalty pool. As noted by one record label, "Music Choice is instrumental in promoting *our clients' music*,"[39] and in doing so Music Choice increased that label's share of the royalty revenue pool. As Dr. Crawford acknowledged, the sharing of the royalty pool "does suggest another reason for the record labels to have incentive to promote their artists on Music Choice."[40]

28. Additionally, Dr. Crawford's argument that the alleged promotional effect will result in a lower royalty rate in marketplace agreements is belied by Music Choice's own experience with the rights it must acquire to offer its video services. According to the Simmons Survey, a Music Choice video-on-demand user is [[redacted]] to have purchased more than 10 CDs in the past year than a Music Choice music channel listener, and both groups are [[redacted]] to have purchased more than 10 CDs.[41] Dr. Crawford agrees that as a matter of economics, a record label would take into account the promotional or substitutional effect of a given service in negotiating marketplace transactions for that service.[42] Nevertheless, the marketplace royalties for Music Choice's video service paid to the record labels are [[redacted]] than those paid to the copyright owners of musical works.[43] Under Dr. Crawford's theory of promotion and royalty rates, this should not occur. Dr. Crawford's theory is incapable of explaining the outcomes of actual marketplace transactions, which is the mark of a poor economic model.

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37 Crawford Deposition Tr. 118: 4-7; *see also* 6/13/12 Tr. 1888:4-17 (agreeing that "it would be more preferable to have more recent evidence of promotional benefits than older evidence").

38 *See* 6/12/12 Tr. 1733:17-1735:3 (Williams).

39 Williams Testimony at 4 (emphasis added).

40 Crawford Deposition Tr. 120:11-3.

41 MC36; *see also* 6/13/12 Tr. 1896:13-1901:7 (discussing the results of the survey showing that [[redacted]]).

42 6/13/12 Tr. 1902:21-1903:12 (Crawford).

43 Music Choice 2012 Budget dated 11/11/2011 at 20-21 (SX Trial Ex. 56). As Mr. Del Beccaro acknowledges, the rates for the sound recording rates for the video service are also "significantly higher than those it pays for audio." 6/11/12 Tr. 1511:6-10 (Del Beccaro).

Dr. Crawford Misinterprets the Effect of the Purported Promotional Benefit of Music Choice

29. Essential to the results of Dr. Crawford's Nash Bargaining Solution is the assumption that the record labels receive a larger surplus (or profit) from the sale of a CD (or download). Thus, when Music Choice allegedly causes additional CD sales, the record labels allegedly receive additional surplus that they would not have otherwise received. Dr. Crawford provides no evidence to support this claim. Rather, Dr. Crawford observes:

> In the 1996 rate proceeding for the PSS sound recording performance rights, the record labels presented evidence showing that for every dollar spent on a CD, 5 cents went to copyright owners of musical works, 7-10 cents went to the recording artist, and 56-88 cents went to the record companies. [footnote omitted] I am aware of no evidence that the shares of different rights holders of CD sales are qualitatively dissimilar today.[44]

30. Note that the division discussed here is of *revenues* from the sale of a CD; the evidence does not address the *surplus* obtained from the sale of the CD. (Dr. Crawford acknowledged this fact on cross examination.)[45] Dr. Crawford's evidence reveals only that in market transactions the record labels and artists receive many multiples the revenue (no less than 12-times) from a CD sale than do the copyright owners of the musical works. As has been recognized by the Court in prior decisions, in the normal course of business the record companies receive revenues many multiples of the copyright owners of the musical works.[46] The reason for this difference is that the labels shoulder far more of the costs and risks to produce a recording than do the owners of the musical work, and thus they are compensated more in market transactions. If the labels do not receive sufficient revenues to cover these higher costs and earn a fair return, then the labels would not continue to make music.

31. Higher revenue does not imply higher surplus, and the split of surplus from a transaction may look nothing like the split of revenue. That record labels receive higher revenues from the sale of CDs (or other distributions of music) because their costs are higher is further supported by evidence of the relative profitability of record labels as compared to music publishers.[47]

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44 Crawford Testimony at ¶ 20.

45 6/13/12 Tr. 1906:7-1908:7 (Crawford).

46 *Webcasting II*, 72 Fed. Reg. at 24094 (noting that "substantial empirical evidence shows that sound recording rights are paid multiple times the amounts paid for musical works rights").

47 *See* MC 59 at 5 ("The greater costs and upfront investments make the recorded music business less profitable and much riskier than the music publishing business. These differences in investment characteristics also reflect one of the reasons for the greater return generally provided to sound recording copyright owners than musical works copyright owners.").

32. Recent evidence on the relative profitability of musical works and recorded music can be gleaned from the financials of Warner Music Group, a large, (and until recently) publicly-traded record company. Warner's financial statements report separate financials for "Recorded Music," which is their business associated with the creation of records, and "Music Publishing," which is their business associated with their copyrights for musical works. As shown in Table 1, in 2011, Warner's Operating Income for its Recorded Music segment was 4.7% of segment revenues, whereas the profit rate for its Music Publishing segment was 13.4% of segment revenues. This difference in profitability is persistent over time. The evidence reveals that the profitability of Music Publishing is about 3-fold larger than the profitability of Recorded Music for every dollar of revenue. These facts suggest that Dr. Crawford's assertion that the labels obtain greater surplus from sales than do the rights owners of musical works is precisely backwards. Furthermore, these data show that the "surplus" or "profit" is only a small share of revenue, confirming the obvious point that a surplus split need not be equal to a revenue split.

Table 1. Relative Profitability of Recorded Music and Music Publishing (in millions)

	2011	2010	2009	2008
Recorded Music				
Revenue	$2,344	$2,455	$2,642	$2,905
Oper. Income	$110	$102	$149	$228
Profitability	4.7%	4.2%	5.6%	7.8%
Music Publishing				
Revenue	$544	$556	$582	$628
Oper. Income	$73	$86	$97	$96
Profitability	13.4%	15.5%	16.7%	15.3%
Relative Profitability (Music Publishing/Recorded Music)	2.9	3.7	3.0	1.9

Source. Warner Music Group, S.E.C. Form 10-K, Years 2011 (p. 62) and 2010 (p. 61).

33. Dr. Crawford's Nash Bargaining analysis is plainly improper for establishing a royalty rate for the sound recording performance rights paid by the PSS. The theory is concerned with surplus division, not revenue division, and Dr. Crawford's reliance on weak evidence of promotion and his unfounded assumption about the relative profitability of recorded music and musical works renders his analysis defective and irrelevant. Dr. Crawford's use of a Nash framework in a compulsory setting is also inappropriate, since an important component of any Nash bargain is that the parties to the transactions are free to walk away if both parties cannot gain from the situation. Given these defects, it is not surprising that Dr. Crawford's analysis fails to accurately predict actual market outcomes. The only relevance of the musical works rate to this

proceeding is that the royalty revenues for SoundExchange should be many multiples of the revenues related to the rights for musical works. Such a conclusion is consistent with this Court's prior consideration of the musical works right as a benchmark, and also consistent with available marketplace evidence.

A. Other Defects with Dr. Crawford's Nash Bargaining Analysis

34. There are a number of other serious shortcomings with Dr. Crawford's application of the Nash Bargaining Solution to the question of royalty rates. For example, Dr. Crawford considers only a two-party transaction between record labels and the PSS. Dr. Crawford explicitly recognizes, however, that there are at least three parties to the transaction: 1) the record labels; 2) the PSS as a content intermediary; and 3) the cable operator customers of the Music Choice service. Ignoring the output market in which the PSS offer their products ignores a number of significant factors that would influence the Nash solution.

35. In Nash's seminal paper, he considers only "the case of the two-person zero sum game."[48] Yet, given the intermediary status of the PSS, the surplus from the transaction is not a fixed, zero-sum game. Dr. Crawford assumes the PSS have market power (in fact, he assumes the PSS are a monopoly – both of them). If true, then the company has the power to pass through, to a greater or lesser degree, any cost increase to its cable operator customers. In fact, many of Music Choice's agreements with cable operators include [[redacted]].[49] Consequently, the surplus available is unique at each royalty rate. A proper Nash Bargaining analysis of the transaction involves all three parties, and this would be a very complex problem.[50] Indeed, in the case of percent-of-revenue royalties, economic research suggests that the Nash solutions are very complex and, to some extent, intractable from a practical perspective even in a two-party transaction.[51]

36. The complexity of the three-party transaction arises in part because Music Choice's role as an intermediary introduces an additional bargain in the output market and all three bargains must be considered jointly. The effects of bargaining in the output market are plainly illustrated by the sizable differences in license fees paid to Music Choice by its cable operator customers, which in turn results in a large differential in the royalties paid to copyright owners under a percent-of-revenue royalty rate. The large differences in royalty for the same right (a [[redacted]] difference) are a significant concern. Market agreements typically guard against such large differences

[48] Nash, supra n. 25, p. 157.

[49] *See* 6/14/12 2152:15-2154:10 (Del Beccaro).

[50] 6/13/12 Tr. 1767:8-16 (Crawford) ("A second market that is also important is the market for the outputs of the PSS provider itself.").

[51] R. Watt, Revenue Sharing as Compensation for Copyright Holders, 8 Review of Economic Research on Copyright Issues 51-97 (2011) ("The complexity of the algebraic form [ ] implies that it does not lend itself well to regulators (p. 71.)").

in royalties for the same or similar use of property (e.g., by including a per-subscriber or per-play rate element).

37. Along the same lines, Dr. Crawford ignores in his Nash Bargaining Solution the unique ownership structure of Music Choice. Adding to a three-party Nash game an ownership interest between two parties is likely to add a great deal of complexity to the model. As demonstrated below, there is compelling evidence that Music Choice's partners receive favorable terms and conditions for the Music Choice service, paying about [[redacted]] than other large cable operators. As a percent of revenue royalty rate, these discounts directly affect royalties. In a market setting, it is likely that the record labels would attempt to limit the ability of Music Choice to reduce royalty payments because of its ownership structure. Consider, for example, the terms of a marketplace agreement between [[redacted]] for a service that is sold on intermediary basis to mobile phone providers. This agreement specifically states that, "[[redacted]]."[52] Clearly, the relationship between the copyright user and its downstream agents is a concern and the record labels explicitly address it in their marketplace agreements. I see no reason to ignore such relationships in this proceeding, since the outcome of marketplace transactions is integral to the determination of rates under 801(b) and Dr. Crawford claims to be establishing a royalty rate the arises in market transactions absent compulsion.

38. Finally, Dr. Crawford ignores entirely in his bilateral monopoly assumption the testimony of Music Choice CEO Mr. Del Beccaro regarding the marketplace reality that Music Choice has a number of competitors. According to Mr. Del Beccaro

> Music Choice competes for customers, listeners, and advertising revenue with many businesses, including traditional AM/FM radio and digital AM/FM radio, Galaxie [], Internet-based audio providers and other actual or potential DBS and cable audio service providers. [ ] Pandora and other "over-the-top" ("OTT") content providers represent a new competitive entrant into the residential audio market. [ ] Recently, Spotify, a very popular service in Europe, entered the US music streaming market. And in November, Google and Apple, the twin 800-pound gorillas of the technology world, both announced music streaming services. Google TV promises to effectively bring the entire Internet and all of its music delivery services (e.g., Pandora, LastFM, Spotify, Live365, Shoutcast, etc.) to the television.[53]

[52] *See* Revised Amended Written Direct Testimony of Roger G. Noll, Appendix K at 64 (SXM Trial Ex. 1).

[53] Del Beccaro Testimony at 36-37.

39. Other cable audio services including Galaxie and Sonic Tap, offer essentially the same service as Music Choice to cable operators, and both have taken customers from Music Choice ([[redacted]]).[54] In light of these numerous alternatives, it is clear that customers have many choices for listening to music both on their televisions and other devices. As Mr. Del Beccaro observes, these services make "direct access to audio programming by residential consumers more prevalent."[55] A bilateral monopoly version of Nash's theory is unlikely to say anything meaningful about the PSS royalty rate.

40. Dr. Crawford's disregard for the obvious fact that the PSS have competitors was "very much for simplicity."[56] Simplifying assumptions are important for crafting tractable economic models, but such assumptions should not dramatically alter the predictions of the theory pertinent to the issue being studied. The implications of competition in the residential audio market are threefold. First, Dr. Crawford's assumption that the record labels have no options for getting content to consumers over television is invalid. Second, the presence or absence of Music Choice has very little if any effect on the "availability of creative works to the public" and Music Choice (and the PSS generally) offer very little in the way of "creative contribution, technological contribution, [or] to the opening of new markets for creative expression."[57] In my opinion, their presence or absence in the market is unlikely to cause any "disruptive impact on the structures of the industries involved."[58]

41. Third, services like Galaxie and SonicTap, both of which offer residential audio channels to multichannel video systems, pay much higher royalty rates than do the PSS.[59] A shift of the PSS business to one of these competitors would increase the royalty revenue to the record labels, and the "greater of" rate structure that these non-PSS services face is likely to render a more even distribution of royalty payments across customers. While Dr. Crawford attempts to characterize the labels as selling either CDs (and downloads) or allowing the PSS to offer services, the reality of the market is that there are many substitutable forms of music delivery to end users, and this fact materially alters the bargaining situation for performance rights in a way that Dr. Crawford has failed to consider. Dr. Crawford has also ignored the disruptive effect

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[54] The only material difference between these competitors and the PSS, for the purpose of setting a royalty rate, is the statutory license under which the services operate.

[55] Del Beccaro Testimony at 37.

[56] Crawford Deposition Tr. 98:19-20 ("And why did you make that assumption? A. It was very much for simplicity.").

[57] 17 U.S.C. § 801(b)(1)(A) and (C).

[58] 17 U.S.C. § 801(b)(1)(D).

[59] Music Choice acknowledges internally that [[redacted]]. *See* Music Choice Company Meeting 2010 at 44 (SX Trial Ex. 55). And the company touts [[redacted]] when negotiating agreements with cable operators. *See* PSS_023626, Music Choice and Time Warner Cable, January 2012 at 31 (highlighting [[redacted]]) (SX Ex. 355-RR).

created when one of multiple providers obtains a significant cost advantage by regulatory fiat and compulsion rather than through efficiency obtained from superior management and creativity.

42. The highly favorable royalty rates obtained by the PSS today, and the exceedingly low rates Music Choice proposes to pay SoundExchange in this proceeding, will almost certainly tilt the playing field in the favor of Music Choice, disrupting the natural evolution of the music delivery industry. Indeed, this tilt appears to be the intent of Music Choice's proposal. As Mr. Del Beccaro claims, if Music Choice does not get a highly favorable rate, it's "business is at risk."[60] From an economic standpoint, a "reasonable" rate is not one that subsidizes a poor business plan or protects one competitor to the detriment of competition.

Music Choice's Partnership Structure Undercuts Dr. Crawford's Analysis

43. As I noted in my direct testimony, the partnership relationship between Music Choice and its cable operator customers raises the possibility that the deals struck between Music Choice and much of the cable industry did not arise in arm's length negotiations. The ownership arrangement has somewhat predictable consequences under the assumption of profit maximization. Appendix A provides a simple theoretical model setting forth the expectation that the Partners would receive favorable treatment.

44. At the time my Direct Testimony was filed, I possessed very little information about the ownership and control of Music Choice and the rates it charged its customers. As a consequence of the discovery process, however, I am now able to evaluate the revenue impact of the ownership structure. This analysis is directly relevant to Dr. Crawford's reliance on Music Choice's financial performance as corroborative of the conclusions he derives from his Nash Bargaining framework. Moreover, the evidence presents an apparent contradiction of Mr. Del Beccaro's testimony about the arms-length relationship between Music Choice and its partners.[61]

45. Evaluating the effect of ownership is important. If Music Choice's customer-Partners receive discounted rates and other favorable terms, then the company's revenues will be understated as a result of its ownership structure. This reduction in revenue will impact the royalty if the royalty is computed as a percent-of-revenue. And, given Dr. Crawford's proposed rate calculation methodology based on historical finances, SoundExchange's royalty rate going forward will be reduced because of the preferential treatment to Partners in the past.

60 Del Beccaro Testimony at 9.
61 Del Beccaro Testimony at 2.

46. Documents provided in discovery strongly suggest that Music Choice's customer-partners receive favorable treatment. As summarized in Table 2, all of Music Choice's Partners (Comcast, Time Warner, and Cox) pay an identical [[redacted]] per subscriber per month for the Music Choice audio service as a result of [[redacted]].[62] These three cable operators account for about [[redacted]] of Music Choice's licensed subscribers. Non-affiliated cable operators, however, pay substantially more. Large, non-affiliated cable operators pay, on average, [[redacted]]. The Partner discount is over [[redacted]] relative to the largest, non-affiliated cable operators.

47. Mr. Del Beccaro attempts to attribute these large differences to buyer size, but the excuse is inconsistent with the data. First, the Partners operate [[redacted]] Thus, if scale matters, it only matters to the largest partner. Comcast Cable has a customer base [[redacted]] times larger than Time Warner and [[redacted]] times larger than Cox, yet all the partners receive the same rate. Obviously, scale alone cannot be the sole explanation for these substantially discounted rates.

48. Second, the large unaffiliated cable operators are approximately as large as Music Choice partner Cox Communications. Charter, for example, has [[redacted]] million customers to Cox's [[redacted]] million customers.[63] In fact, in the [[redacted]].[64] Thus, the Partners are treated quite differently, and much more favorably, than other customers.

49. Third, we see no scale-related discount between Charter, at [[redacted]] million subscribers and Cablevision at [[redacted]] million subs despite the difference of [[redacted]] million subs. Yet, we see a discount of about [[redacted]] between Charter and Cox with a difference of only [[redacted]] subscribers. Without question, Music Choice's Partners receive highly favorable rates that cannot be attributable to subscriber count alone. While these

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62 SX Trial Ex. 72 at 2 ([[redacted]]." *See also* 6/14/12 Tr. 2147:19-2149:10 (Del Beccaro). [[redacted]].

63 Mr. Del Beccaro attempts to explain this difference by arguing that Cox was much larger than other providers when its last contract was signed. *See* 6/14/12 Tr. 2143:3-21 (Del Beccaro). However, reports on the cable industry by the Federal Communications Commission indicate that Charter and Cox had very similar subscriber counts since at least 2002. Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Ninth Annual Report, MB Docket No. 02-145 (December 31, 2002), at Table B-3; *see also* Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Twelfth Annual Report, MB Docket No. 05-255 (March 3, 2006), at 15, Table 2; Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, Thirteenth Annual Report, MB Docket No. 06-189 (Jan. 16, 2009), at 146, Table B-3.

64 *See* Music Choice-Charter Affiliation Agreement at 41-42 (SX Trial Ex. 70).

license fee differentials are very big for the larger cable operators, the Partner's discount is [[redacted]] off the average non-partner rate ([[redacted]]) and [[redacted]] off the median non-partner rate ([[redacted]]). As discussed below, a per-subscriber fee can be used to guard against such massive differentials in the royalty payment for the same or similar use of rights.

Table 2. Rate Terms for Music Choice Customer

	Basic Subs	Rate
Partners		
Comcast Cable Communications	[[redacted]	[redacted]
Time Warner Cable	[redacted]	[redacted]
Cox Communications	[redacted]	[redacted]
Average		[redacted]
Non-Partners		
Charter	[redacted]	[redacted]
Verizon	[redacted]	[redacted]
AT&T Services, Inc	[redacted]	[redacted]
Cablevision	[redacted]	[redacted]
Average		[redacted]
Subscriber Weighted Average (All Non-Affiliates)		[redacted]
Median Rate (All)		[redacted]]
Source: PSS_365233 (Data dated August 2011).		

50. The rate data alone is compelling, but there is additional evidence that Music Choice offers preferential terms to cable operator Partners. The evidence comes in two forms. First, a review of the contractual agreements between Music Choice and its customers suggests a [[redacted]]. For example, the partner affiliation agreements have explicitly called for a [[redacted]].[65] While later agreements have [[redacted]

[65] *See, e.g.*, PSS_361793 (Time Warner Partner Affiliation Agreement, January 21, 2000) (SX Ex. 356-RR); PSS_356101 (Comcast Partner Affiliation Agreement, March 13, 2000) (expired); PSS_356060 (Adelphia Partner Affiliation Agreement, April 3, 2000) (expired); PSS_355266 (Form Partner Affiliation Agreement). The Time Warner Partner Affiliation Agreement containing the "partner return" provision appears to have only recently expired in 2012.

[redacted].[66] This is marked contrast to non-partner affiliates whose rates are not set [[redacted]].

51. Second, direct communication between Music Choice and its partners suggests the cable partners [[redacted]]. Consider an email written from Music Choice CEO Dave Del Beccaro to individuals at Time Warner Cable, one of Music Choice's partners. The email concerned the negotiations related to the introduction of a new Music Choice service called SWRV and the license fee that would be charged to Time Warner.[67] The email reads,

> [[redacted]].[68]

52. The communication largely speaks for itself. Music Choice is [[redacted]] and these [[redacted]] The consequence of [[redacted]] Recall that these [[redacted]] paid by its Partners, are the basis for Dr. Crawford's recommended royalty rate of a paltry 1.52% royalty rate, discussed in more detail below. Again, the implication is clear. Music Choice is establishing rates for its Partners that are [[redacted]].[69]

53. Ultimately, as Music Choice itself stated, in a presentation to its Partner, Time Warner Cable, [[redacted]] and [[redacted]][70] Dr. Crawford's argument that the company's profits should be split to determine a proper

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[66] PSS_358013 (Comcast Affiliation Agreement, July 15, 2004) (active); PSS_358339 (Cox Affiliation Agreement, November 15, 2005) (active) (SX Ex. 357-RR).

[67] Internal documents related to the development of the interactive music video service also make explicit the favorable treatment received by Partners. *See* PSS_011950, Music Choice Music Video Network Business Plan, December 2008 at 13 (SX Ex. 358-RR)

[68] SX Trial Ex. 72.

[69] *See also* PSS_021517 (email from Robin Dawson at Music Choice to Time Warner Cable employees containing virtually identical language) (SX Ex. 359-RR).

[70] SX Ex. 355-RR at 33. Essentially the same presentation was made in 2011 to Comcast. *See* PSS_004383 (further explaining that "[[redacted]]").

compensation for SoundExchange in untenable. The financial effect of this favorable treatment is illustrated below.

Dr. Crawford's "Corroborative" Financial Analysis is Unreliable

54. In the last section of his testimony, Dr. Crawford provides an analysis of Music Choice's historical finances with the purpose of affirming his discussion of the application of the Nash Bargaining Solution to the question of the proper PSS royalty. Using this historical information, he calculates Music Choice's economic profit over a five-year period, which he estimates to be 3.04% of music channel revenues. Using the fifty-fifty split from the simplest case of the Nash bargain, he then concludes that a proper royalty rate for SoundExchange is 1.52%, with a reasonable royalty range of 0.06% to 2.43% based an arbitrary profit split of 20% or 80% (a symmetric departure from the 50% Nash rate). While Dr. Crawford claims that this range, 0.06% to 2.43%, "reflects arm's-length negotiations between PSS such as Music Choice and independent record companies,"[71] he fails to provide any evidence from market transactions that support such a low royalty rate paid to the record labels and performers.

55. In addition to the error of describing such a low royalty as a market rate, there are many other defects in Dr. Crawford's financial analysis. I will address some of the more severe problems below. My comments are divided into two parts. First, Dr. Crawford fails to establish a persuasive explanation for his contention that the financial analysis somehow corroborates his use of the Nash Bargaining Solution. In fact, the financial analysis, if anything, rejects Dr. Crawford's arguments based on the Nash analysis. Second, despite his desire to do so, Dr. Crawford does not conduct an analysis on the residential audio business. The financial information provided him by Music Choice includes costs and revenues from other business segments including commercial services and video services. Mr. Del Beccaro testified that Music Choice believes that having a video service is essential to the survival of the company.[72] He further testified that he believes that if Music Choice did not offer its video service in a bundle to its cable operator customers the per-subscriber licensing fees would be lower, by a "significant amount."[73] Evidence in the record directly contradicts that claim. Most notably, at least some of Music Choice's cable operator customers do not carry the video service. Yet the licensing fees for those customers remain much higher than the average licensing fee received by Music Choice.[74]

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71 Crawford Testimony at ¶184.

72 6/11/12 Tr. 1498:2-1499:5 (Del Beccaro); *see also* 6/12/12 Tr. 1832:15-1833:3 (Crawford) ("[I]n order to maintain a viable service in the market, they needed to include video with it, and so it became a necessary product in order to remain a viable competitor in the market.").

73 6/14/12 Tr. 2163:9-19 (Del Beccaro).

74 *See* Music Choice Affiliation Agreement with [[redacted]] at 18-20 (setting forth licensing fee for audio service at [[redacted]] per subscriber, despite fact that Affiliate had not yet launched any VOD services) (SX Trial Ex. 71). This also contradicts Dr. Crawford's testimony that Music

56. It appears to me that the PSS designation under the statute is limited to audio channels delivered over multichannel video services, not any service a qualifying PSS chooses to offer.[75] As Dr. Crawford admits, other PSS do not offer video services, so the PSS-service does not require video service as a money-losing add on.[76] Limiting the financial analysis to residential audio-only channels reveals that the PSS-compliant service is very profitable. Music Choice is certainly free to offer any service it believes may one day generate a profit. But it is not the responsibility of the record labels and performers to subsidize the losses from its other business segments. In fact, the financial data suggest that Music Choice is attempting to use the compulsory license to force SoundExchange into providing capital for Music Choice's expansion into the music video business.

A. The Nexus Between the Nash Discussion and the Financial Analysis Conducted by Dr. Crawford is Weak.

57. Dr. Crawford's discussion of the Nash Bargaining Solution is intended to demonstrate two points he claims are relevant to the setting of a royalty rate. First, under a simple set of assumptions, the Nash Solution says that the surplus available from a transaction will be equally split between the two parties to that transaction, assuming both parties have something to gain from it. Dr. Crawford's financial analysis is based on the fallacious idea that Nash's theory implies one can determine a Nash outcome by dividing one party's historical profits in half. The division of historical profits of one party to the transaction, particularly when those financial results are generated under the shadow of regulation and compulsion, has nothing to do with Nash's theory.

58. Dr. Crawford's second and more critical point taken from the Nash analysis is that if one assumes that Music Choice promotes CD sales, then the share of surplus going to the record labels should be less than the share of surplus going to the copyright owners of musical works, the latter being his alleged benchmark transaction. This difference is based on the unsupported assumption that the labels earn higher profits from CD sales than do music publishers. As discussed above, this assumption has no foundation, and Dr. Crawford admits to as much.[77] In fact, the evidence presented above suggests that music publishing is considerably more profitable than music

Choice's "video-on-demand service is uniformly included with their audio service in licenses to cable operators, and there's no way to decompose that." 6/12/12 Tr. 1832:10-12 (Crawford). Dr. Crawford testified that his understanding that "one of the video services is always included with the audio service" justified his decision to not attempt to break out the audio and video components of the service in his financial analysis, which I address in more detail below. 6/12/12 Tr. 1860:14-21 (Crawford).

[75] 6/14/12 Tr. 1510:21-5 (Del Beccaro) (explaining that Music Choice does not get the rights for its video services under the compulsory license).

[76] 6/13/12 Tr. 1845:18-1846:1 (Crawford).

[77] 6/13/12 Tr. 1906:7-1908:7 ("I am not aware of the profitability of the record labels.").

recordings. As such, Dr. Crawford's analysis prescribes that the sound recording royalty rate should exceed the musical works rate.

59. Although the promotion issue is the sole basis for his argument that SoundExchange's royalty should be lower than the musical works rate, *Dr. Crawford does not include the promotional effect in his financial analysis,* stating "I exclude this promotional benefit from my analysis."[78] Excluding the promotional effect from the analysis has important implications. First, Dr. Crawford's conclusion that SoundExchange's royalty rate should be less than the musical works rate depends on the promotional effect (and his faulty conclusion about the relative surplus from CD sales), but he ignores this promotional effect in his financial analysis. Second, as Dr. Crawford states, "if there were no promotional benefits at all, the model would predict equal royalty rates."[79] Yet, Dr. Crawford then conducts a financial analysis he claims indicates that the proper, market-based royalty rate is 1.52% of residential audio revenues, which is a rate much smaller than the musical works rate. He also concludes that the royalty rate should be no greater than 3.04%, which again is much lower than the musical works rate. So while his theory predicts an equal royalty rate between the labels and copyright owners of the musical work if the promotional benefit is excluded from his analysis, Dr. Crawford then offers as probative an analysis that computes a royalty rate well below the musical works rate. This result is inconsistent with his primary conclusion from the Nash bargaining framework. Indeed, either Dr. Crawford's own testimony is an indictment against his financial analysis, or else his financial analysis is an indictment against his theoretical discussion. The fact of the matter is that the financial analysis has absolutely nothing to do with Nash's theory, so the discrepancies between the empirics and theory are not surprising.

B. Dr. Crawford Presents a Highly Distorted View of the Profitability of Music Choice for its Music Channels

60. The defects in Dr. Crawford's financial analysis go well beyond inconsistencies with Nash's theory. His calculations (or those by the accountants on his staff) present a highly distorted view of the profitability of Music Choice's residential audio service.

61. Dr. Crawford's financial analysis consists of the calculation of a measure of profits, which he refers to as the "earnings residual" and in some cases "operating income." This earnings residual is, for the most part, revenues less expenses, where expenses are purged of SoundExchange royalties and include a return to capital. In an effort to make the discussion of the financial analysis more concise, the introduction of some notation is beneficial. Music Choice has three primary business segments: 1)

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[78] Crawford Testimony at ¶ 160.

[79] 6/13/12 Tr. 1904:5-7; *see also* 6/13/12 Tr. 1880:4-19 (Crawford).

music channels (indicated by subscript M); 2) music videos (V);[80] and 3) commercial services sold to businesses (C).[81] Let revenues be R and expenses be E. Music Choice pays royalties to SoundExchange which are labeled SX.

62. According to Dr. Crawford, his intent was to calculate the earnings residual (π) as

$$\pi = R_M - E_M + SX, \tag{1}$$

where the residual is computed only for the residential audio music channel segment.[82] Dr. Crawford contends that a "Nash" royalty rate will be half the earnings residual divided by music channel revenues [royalty rate = $0.50(\pi/R_M)$]. Theoretically, there is no support for this calculation from Nash's theory, but I will set that fact aside for the moment. While Dr. Crawford wanted to calculate Expression (1), my review of Music Choice's financial records indicates that the actual calculation of the earning residual by Dr. Crawford is:

$$\pi' = R_M + R_V - (E_M + E_V + E_C) + SX. \tag{2}$$

Expression (2) shows that the calculation of the earnings residual is the sum of revenues from the residential music channel and music video segments less the expenses from the residential music channel, music video, and commercial service segment. While commercial revenues are excluded, the expenses from the segment are included in the calculation. The royalty rate computed by Dr. Crawford uses the formula $0.50(\pi'/R_M) = 1.52\%$, which applies only to music channel revenues.

63. Obviously, this calculation of the profit from the PSS-compliant service – music channels sold to residential subscribers – is invalid. It is also inconsistent with Dr. Crawford's own stated intention to analyze the profit of the audio-only service. Dr. Crawford was apparently informed by Music Choice personnel that it was not possible to allocate expenses between the video and audio components of the company's business.[83] Evidence in the record directly contradicts that claim. In response to discovery requests, Music Choice provided segment-specific financial records.

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[80] To be clear, there are actually two different video services offered by Music Choice. *See* 6/11/12 Tr. 1518:7-1519:2 (Del Beccaro).

[81] It appears that Music Choice may have included revenues and expenses from other business segments including a Cell Phone segment, though this and a general category "Other" services represent a small portion of both.

[82] 6/12/12 Tr. 1859:17-20 (Crawford) ("Q: Your intention in your testimony was to distinguish between the residential audio service and any of Music Choice's other services, correct? A: That's how I wanted to start, yes."); Crawford Deposition Tr. At 233: 3-6 ("I asked Music Choice to provide me with financial statements for its residential audio service business, and they – this was the information that they provided to me.").

[83] 6/12/12 Tr. 1859:21-1860:21 (Crawford).

64. A look at Music Choice's financial data reveals that the information provided to Dr. Crawford reduces the earnings residual for the audio service by including expenses and financial losses from other, non-PSS segments of Music Choice's business.[84] First, Music Choice's video business, [redacted] Adding expenses from the commercial segment also lowers the earnings residual and, in turn, the royalty rate proposed by Dr. Crawford. Notably, [redacted], but Music Choice excluded commercial revenues from the financial data provided to Dr. Crawford. Put plainly, video revenues and costs were included, [redacted], while commercial expenses were included but segment revenues were not, [redacted]. In both cases, the decision regarding what to include and exclude had the effect of shrinking the earnings residual, thereby biasing downward the estimate of profitability.

65. There is an additional consequence from the inclusion of video revenue and expenses in the financial calculations. Music Choice's video business [redacted]. The percent royalty fee applies only to residential audio revenue. Mr. Del Beccaro's testimony reveals, however, that Music Choice clearly believes that video services are the [redacted].[86] So while the losses from the video business are included in the calculation thereby deflating SoundExchange's royalty, the copyright owners and performers stand to receive no benefit under the statutory license from the upside of high growth in video revenues. This lopsided calculation is highly favorable to Music Choice but penalizes SoundExchange. This distortion is best dealt with by excluding both video revenues and expenses from the calculation of profits.

66. Using financial reports created and provided by Music Choice, it is possible to approximate the earnings residual for the PSS-compliant service – residential music channels. My calculations rely on Music Choice's own internal allocation of revenues and expenses. Presumably, the person or persons doing such allocations understands

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[84] There are other unexplained inconsistencies with the financial data on which Dr. Crawford based his analysis. For example, neither Dr. Crawford nor Mr. Del Beccaro could explain why the amount that Dr. Crawford reported for [redacted]. *See* 6/13/12 Tr. 1856:8-1860:2 (Crawford); 6/14/12 Tr. 2139:12-2140:18 (Del Beccaro).

[85] *See* Music Choice Video Statement of Operations (Unaudited) for Period Ending 12/31/10 (SX Trial Ex. 58 at 8).

[86] *See, e.g.*, Del Beccaro Testimony at MC 24 (presenting company projections of [redacted]).

the business and made such allocations with the intent of using the information for business planning. Also, these allocations appear to be done for business purposes, so it is reasonable to conclude that these records, unlike the solicited emails discussed by Mr. Williams, do not reflect any effort to influence the outcome of this proceeding. Even if these allocations have imperfections, my calculations reveal, at a minimum, that an effort to focus solely on the residential audio service is likely to produce substantially different results than those reported by Dr. Crawford.

67. Table 3 summarizes the calculation of the earnings residual for the residential music channel services alone for the years 2008 through 2010.[87] My calculations use the same methods as does Dr. Crawford, changing only the data so as to reflect the residential music channel segment. To be highly conservative, I have included in the calculation the same return to capital as did Dr. Crawford, even though this return may reflect other business segments.[88] SoundExchange royalties are not separated in the financial documents, so they are computed as 7.25% of revenues.[89]

Table 3. Earnings Residual for Residential Audio Channels
(In thousands)

	2008	2009	2010	Sum
Revenue	[[redacted]	[redacted]	[redacted]	[redacted]
Expenses	[redacted]	[redacted]	[redacted]	[redacted]
Return to Capital	[redacted]	[redacted]	[redacted]	
Expenses + Return to Capital	[redacted]	[redacted]	[redacted]	[redacted]
Add: SX: Royalty (7.25% Revenue)	[redacted]	[redacted]	[redacted]	[redacted]
Royalty Adj. Operating Income	[redacted]	[redacted]	[redacted]	[redacted]
Earnings Residual as Share of Revenue	[redacted]	[redacted]	[redacted]	[redacted]]

68. From Table 3, it is apparent that the residential audio segment of Music Choice is very profitable, with a return of [[redacted]] over the entire interval. (The Earnings Residual

[87] Detailed financial breakdowns by segment were provided for these three years. While the detailed information was unaudited, the differences between the unaudited and audited data were less than ±3% over this period. *See* PSS_021199, Music Choice Unaudited Financial Statements for period ending December 31, 2008 at 2 (SX Ex. 360-RR); PSS_021218, Music Choice Unaudited Financial Statements for period ending December 31, 2009 at 2 (SX Ex. 361-RR); SX Trial Ex. 58; Music Choice and Subsidiaries Consolidated Financial Statements 2009 and 2010 (SX Trial Ex. 64); PSS_002735, Music Choice and Subsidiaries Consolidated Financial Statements 2007 and 2008 (SX Ex. 362-RR).

[88] My review of the financial records suggests that these assets include those related to the provision of video services. As a result, the computed profit margins are biased downward.

[89] In Dr. Crawford's Table Appendix B.3, SoundExchange royalties are consistently 7.25% of revenues. I do not use the SX royalties reported by Dr. Crawford since the revenues from the segment detail are not identical to those Dr. Crawford reports. Segment revenues from the detailed financials are about 3% higher than those reported by Dr. Crawford.

is labeled "Royalty Adj. Operating Income.") Profitability is likewise stable, with a range of profit rates of [[redacted]]. Plainly, Dr. Crawford's calculations based on information provided by Music Choice does not accurately represent the profitability of the residential audio service (reducing the profit rate to 3.04%), a direct consequence of overstating expenses by including revenues and costs from services not relevant to this proceeding. Splitting the "surplus" between SoundExchange and Music Choice, as Dr. Crawford recommends, would result in a royalty rate of about [[redacted]], with a range of [[redacted]] (based on a 20% or 80% split of the earnings residual). In light of the evidence from Table 1 showing that music recording is less profitable than music publishing, this royalty rate in excess of the musical works rate is entirely consistent with Dr. Crawford's prescriptions based on Nash's theory and promotion.

69. Given the very large difference in the profit rate calculated by Dr. Crawford and that calculated using the segment-specific financial allocations done by Music Choice, it was unreasonable for Dr. Crawford to not even attempt any allocation of costs or not to demand such information that permitted such calculations. Revenues, and many types of costs, however, are easily assigned to particular lines of business. Expenses related to rights, for example, should be easily allocated to the various segments, as should programming costs and operations.

70. Some costs, such as those categorized as "General & Administration", are often viewed as common or shared across the entire business entity.[90] To provide a highly conservative estimate of the profitability of the residential music channel segment that takes into account such shared costs, I assign *all* "General & Administrative" expenses of the firm to the residential audio service. Again, as shown in Table 4, even under this extreme allocation of potentially common expenses, the earnings residual remains very high for the segment [[redacted]]. Using Dr. Crawford's proposed calculation, the point estimate of the royalty is 20% with a range of [[redacted]].

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[90] Music Choice did, however, allocate assets to various segments using a revenue allocation factor. *See* Crawford Testimony at Appendix B.2.

Table 4. Earnings Residual for Residential Audio Channels
(In thousands; Including All G&A Expenses)

	2008	2009	2010	Sum
Revenue	[[redacted]	[redacted]	[redacted]	[redacted]
Expenses	[redacted]	[redacted]	[redacted]	[redacted]
Return to Capital	[redacted]	[redacted]	[redacted]	
Expenses + Return to Capital	[redacted]	[redacted]	[redacted]	[redacted]
Add: SX: Royalty (7.25% Revenue)	[redacted]	[redacted]	[redacted]	[redacted]
Royalty Adj. Operating Income	[redacted]	[redacted]	[redacted]	[redacted]
Earnings Residual as Share of Revenue	[redacted]	[redacted]	[redacted]	[redacted]

71. As discussed above, Music Choice's ownership structure raises serious concerns about the company's revenues. Specifically, the lower licensing fees afforded Partners cuts revenues deeply, and the lower revenues result in lower royalties. While the Partners account for about [[redacted]] of Music Choice's licensed subscribers, they account for only about [[redacted]] of Music Choice's revenues.[91] In the next financial simulation I attempt to provide an estimate of the impact of the favored treatment provided to Music Choice's Partners by applying the lowest license fee charged to other large cable systems to Music Choice's Partners ([[redacted]] per subscriber month rather than [[redacted]] per subscriber month).[92] Since the Partners represent over half of the ultimate end users of Music Choice's service, the effect on revenues is significant ([[redacted]]). As detailed in Table 5, bringing the Partner license fee to a level consistent with other large cable operators increases the profitability of the music channel segment to [[redacted]]. Applying Dr. Crawford's proposed split, the royalty rate would be [[redacted]] with a range of [[redacted]].

91 PSS_365233; *see also* SX Trial Ex. 58 at 5.

92 This assumption causes revenues to rise, and thus royalty expenses to rise. I take this fact into account.

Table 5. Earnings Residual for Residential Audio Channels
(In thousands; Adjusted Partner Revenue)

	2008	2009	2010	Sum
Revenue	[[redacted]	[redacted]	[redacted]	[redacted]
Expenses	[redacted]	[redacted]	[redacted]	[redacted]
Return to Capital	[redacted]	[redacted]	[redacted]	
Expenses + Return to Capital	[redacted]	[redacted]	[redacted]	[redacted]
Add: SX: Royalty (7.25% Revenue)	[redacted]	[redacted]	[redacted]	[redacted]
Royalty Adj. Operating Income	[redacted]	[redacted]	[redacted]	[redacted]
Earnings Residual as Share of Revenue	[redacted]	[redacted]	[redacted]	[redacted]]

72. If the finanancial condition of the copyright user is relevant to the determination of a royalty rate, then these alternative calculations of the profitability of Music Choice's residential audio service are significant. All of the alternatives reveal that the residential audio service is very profitable. The paltry profit rate computed by Dr. Crawford is a direct result of including expenses from business segments that are not under the PSS umbrella, which results in a very inaccurate view of the profitability of music channels. My review of the data suggests that the low profit rate computed by Dr. Crawford is largely a result of Music Choice's decision to enter the music video business.

73. As is usual with entry into almost any market, including Music Choice's entry into the music video business, the upfront costs are high and revenues low, leading to losses in the early years. Normally, however, the up-front working capital required to enter a new business segment is funded by the capital markets. Mr. Del Beccaro stated that Music Choice has been [[redacted]].[93] Although capital may be difficult to acquire, it is not the responsibility of the record labels and performers to finance Music Choice's entry into non-PSS services and, in my opinion, it is also not the responsibility of the Court to set a very low royalty rate under a compulsory license to force SoundExchange to subsidize Music Choice's expansion efforts. If Music Choice wants the record labels and performers to invest in its expansion, then Music Choice should seek their participation in a market setting, not a regulated one.

C. Dr. Crawford's Application of the Section 801(b)(1) Policy Factors is Unsound

74. Section 801(b)(1)(B) requires the Judges to consider whether or not the rates they set permit the copyright owners to earn a fair return. In addition, the statute requires

[93] 6/14/12 Tr. 1507:8-10 (Del Beccaro).

consideration of whether the rate provides a fair income to the copyright user. Dr. Crawford's theoretical and financial analysis, and consequently his recommended royalty rate, ignores completely the question of a fair return for copyright owners.[94] His analysis addresses only the issue of a fair income in the context of Music Choice's profitability, without any regard to whether its business plan will permit the record labels and performers to be fairly compensated for their opportunity costs so that they are encouraged to produce new creative works. Because he did this, it is not possible to conclude that his recommendations lead to a reasonable royalty rate.

75. By ignoring the costs of making recordings, Dr. Crawford's treatment of the fair return/fair income question is fundamentally off base. He is also guilty of a number of more practical errors. First, based on his financial calculations, Dr. Crawford concludes that the royalty rate should not equal 3.04% because that "would give all of the expected surplus from Music Choice's residential music business to the record labels," which he concludes would not be "fair."[95] He also argues that a rate exceeding 3.04% "would put Music Choice at significant risk of exiting the industry."[96] These claims conflict with his testimony in a number of ways. For example, Dr. Crawford observes, "a fair income ... should provide the copyright user a return on assets commensurate with what they might achieve in a competitive market."[97] Dr. Crawford's financial analysis counts as an expense Music Choice's return on assets. Thus, the 3.04% profit rate this presumably represents a super-competitive return. The copyright owners, the other party to this hypothetical bargain, also have assets requiring a return, but those enter nowhere in the calculation. Also, Dr. Crawford states that establishing royalty rates in consideration of a "fair income" does not mean that the copyright user is guaranteed a certain level of profitability.[98] Yet, it is hard to interpret his financial analysis as meaning anything else.

76. Dr. Crawford's discussion of the 801(b)(1)(D) objective is similarly flawed. As I see it, the disruption factor is not intended to protect a bad business plan or subsidize entry into new lines of business. In my opinion, as formed in part from the Judges earlier decision in setting a PSS rate, this factor 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. As I observed in my Direct Testimony, SoundExchange's proposal addresses such concerns by choosing from the lowest of

94 6/13/12 Tr. 1912:10-20 ("Q. In analyzing the first of these two factors, to afford the copyright owner a fair return for his creative work and the copyright user a fair income under existing economic conditions, you did not quantify the cost incurred by copyright owners, correct? A. That is correct. But as I mentioned in my report, I would have liked to, but I simply did not have the data available.").

95 Crawford Testimony at ¶ 174.

96 Crawford Testimony at ¶ 183.

97 Crawford Deposition Tr. 232:6-11.

98 6/13/12 Tr. 1913:10-15 (Crawford).

royalty rates observed in marketplace agreements. Further, these royalties would be phased in over time.

77. Certainly, the concept of "disruption" in the statute may extend beyond these few concepts. For example, one way to disrupt the structure of industries is to give one firm or a class of firms a profound but artificial cost advantage over its rivals. This advantage is exactly what Music Choice is seeking from this proceeding – they seek to use compulsion and the regulatory system to give the company a competitive leg up. Such a cost advantage will shift business to the artificially low cost firm(s), making it difficult if not impossible for competitors to survive. The cost advantage may also subsidize the sustained inefficiency of the favored firm, and rob customers of innovations that rivals offer. Today, Music Choice has a sizeable cost advantage over its rivals that derives from its highly favorable royalty paid to SoundExchange (7.5%).[99] Despite this advantage, Music Choice continues to founder financially. Music Choice's proposed royalty of 2.6% grants an even more sizable advantage over rivals, but offers no guarantee of financial success.

78. Mr. Del Beccaro's testimony provides an example of this problem in action. DirecTV is one of the largest providers of multichannel video services in the U.S., with about 20 million customers.[100] Included in its bundle of channels are SonicTap's genre-based music channels. SonicTap is a member of the regulated class of operators which are subject to a statutory royalty rate of the greater of 15% of revenue or $0.0265 per subscriber for bundled services or $0.0159 for stand-alone services.[101] Mr. Del Beccaro stated on Cross Examination that Music Choice is attempting to regain DirecTV's business and [[redacted]].[102]

79. At this license fee and Music Choice's proposed royalty of 2.6%, Music Choice would pay SoundExchange an average royalty of only [[redacted]] per subscriber month. Under current regulations, SonicTap must pay no less than $0.0159 per subscriber month in royalties to SoundExchange, a rate that is [[redacted]] than that Music Choice seeks to pay (and [[redacted]] than it pays today). This substantial cost advantage is certain to tilt the playing field in favor of Music Choice. It will be difficult for any of Music Choice's competitors to overcome such an enormous cost disadvantage, which is purely a consequence of a regulatory decision. To continue to

99 The CABSATs pay no less than twice this rate. [*See also* SX Trial Ex. 55.

100 Fourth Quarter 2011 Financial Results and Outlook, DirecTV (February 16, 2012) (available at: http://investor.directv.com/events.cfm).

101 37 C.F.R. § 383.3(a). Note that this rate structure undercuts Music Choice's claims that somehow bundling its high-cost/low-revenue video service with its low-cost/high-revenue audio service should results in a lower royalty rate. The rate the CABSATs pay when their audio service is sold on a standalone basis is significantly lower than the rate paid when the audio service is bundled with something else.

102 6/14/12 2146:11-15 (Del Beccaro).

provide such an advantage to the PSS is certain to disrupt "the structure of the industries" by creating an artificial low-cost provider, and this course impinges on "generally prevailing industry practices" which have the competitors to Music Choice paying either market rates or regulated rates much closer to market rates.

D. Financial Effects of Applying the 45% Market-based Royalty

80. Mr. Del Beccaro claims that if the royalty rate does not decline substantially, the company's music channel business will be at risk. He even claimed during his oral testimony that Music Choice would be put out of business if SoundExchange's 45% rate proposal was adopted.[103] In order to assess this claim, I will use Music Choice's historical finances to simulate the effect of a 45% royalty on Music Choice's Operating Income from residential audio services using the information summarized in Table 3. The results are summarized in Table 6. I assume revenues are unchanged, and the 45% royalty rate applies to historical revenues. The calculations follow Dr. Crawford's definition of Operating Income.

Table 6. Earnings Residual for Residential Audio Channels
(Thousands $)

	2008	2009	2010	Sum
Revenue	[[redacted]	[redacted]	[redacted]	[redacted]
Expenses less SX Royalties	[redacted]	[redacted]	[redacted]	[redacted]
SX Royalty (at 45%)	[redacted]	[redacted]	[redacted]	[redacted]
Return to Capital	[redacted]	[redacted]	[redacted]	
Expenses + Return to Capital	[redacted]	[redacted]	[redacted]	[redacted]
Operating Income	[redacted]	[redacted]	[redacted]	[redacted]
Operating Income as Share of Revenue	[redacted]	[redacted]	[redacted]	[redacted]]

81. As shown in the table, the residential audio business continues to produce a positive Operating Income [[redacted]] at the 45% royalty rate. If Table 6 is adjusted to include the additional revenue from the elimination of the Partner-preferred rate (as in Table 4), the profit rate is [[redacted]], and this profit rate is above-and-beyond the competitive return on assets. Including all the "General & Administrative" expenses (as in Table 5) reduces this profit rate to [[redacted]]. While the lower overall income may provide less of a subsidy to the video segment, the residual music channel segment remains profitable (including a return to capital). If Music Choice fails to make an income sufficient to warrant its continued operation, it will not be for a lack of profit in its residential music channel segment.

103 6/11/12 Tr. 1515:12-18 (Del Beccaro).

In Light of the Evidence, a "Greater of" Rate Structure is Desirable

82. After reviewing the financial information supporting Music Choice's proposal, and looking over the direct testimony and other documents provided by Music Choice, I believe a "greater of" rate structure including a per-subscriber minimum should be carefully considered for the PSS. Unlike most marketplace agreements I have observed, the license fees for Music Choice vary considerably across its cable operator customers. Unaffiliated cable operators can pay [[redacted]] per subscriber month while others pay [[redacted]] per subscriber month. Music Choice's Partners pay only [[redacted]] per subscriber month, [[redacted]] unaffiliated cable operator's license fee. Since the PSS presently pay only a percent-of-revenue fee, there will likewise be a wide variation in the royalty paid for the copyrighted works, despite the fact that the use of rights is presumably very similar across cable systems.

83. For example, consider the difference in royalties at the current rate of 7.5%. At the lowest license fee, the royalty is [[redacted]] per subscriber, and at the rate paid by most of Music Choice's cable operator customers [[redacted]], the royalty rate is [[redacted]] per subscriber, a [[redacted]] differential for the same or similar use of property. The same [[redacted]] differential would apply for any fixed percentage royalty rate. Furthermore, the lowest royalty rate paid by services like Galaxie and SonicTap is [[redacted]] than that paid by Music Choice (or [[redacted]] at the higher bundled rate). A per-subscriber minimum will attenuate these large differences across the final user of the copyright (the cable companies and their subscribers). Moreover, while the rate for non-PSS cable audio services is not being offered as a benchmark, a per-subscriber minimum will put the PSS on a more level footing with their closest competitors.

84. A further benefit of adding a per-subscriber royalty is to protect SoundExchange's members from having their royalties cut by the favorable rates Music Choice provides to its Partners. All of its Partners, regardless of size, pay the same [[redacted]] per subscriber month. This low rate generates only [[redacted]] per subscriber month in royalties, a per-subscriber payment roughly equal to the rate paid for [[redacted]]. Music Choice's own survey suggests the usage levels of its own customers and those of the Commercial Webcasters are similar. Services like Galaxie and SonicTap, facing a per-subscriber minimum of $0.0159 per subscriber month (or $0.0265 for bundled services), have very little hope of success in the face of such a large cost advantage for Music Choice.

85. Establishing a per-subscriber royalty rate that may plausibly be deemed consistent with a market outcome could be accomplished using the following approach, among others. A conservative methodology is to multiply the 45% market-based royalty rate by the lowest rate paid by large multichannel video operators that are not Partners with Music Choice ([[redacted]] per subscriber month), producing a subscriber-based royalty rate of [[redacted]] per subscriber month. Similarly, the Music Choice Partner rate of [[redacted]], the per-subscriber royalty computed using a 45% royalty rate would be

[redacted] per subscriber month. Using the Partner rate alone, however, would reflect favorable treatment to the Partners. The simple average of these two per subscriber license fees is [redacted] per subscriber month, which may represent a sensible compromise. Since this rate is derived from actual license fees paid to Music Choice and the 45% royalty rate observed in market transactions, it could plausibly be described as a per-subscriber minimum rate per month consistent with market outcomes. Or, one could compute a weighted-average of the two rates using the revenues shares of Partners and the unaffiliated firms, rendering a royalty rate of [redacted] per subscriber month.[104] If weighted instead by licensed subscriber shares across Partners and non-Partners, the weighted-average is [redacted] per subscriber month.[105]

86. A per-subscriber minimum would attenuate the problem of very low royalties for what is a heavy use of music rights, and also reduce the effect on royalties of the favorable treatment of Partners. While a per-subscriber minimum might equal a large share of the Partner rate, that is the point. A payment of only [redacted] per subscriber for the heavy use of the labels' property is untenable. Also, a per-subscriber minimum of [redacted] equals only about [redacted] of the subscriber-weighted average license fee paid by non-affiliates ([redacted]), so it is not burdensome when considered in relation to the non-Partners.[106]

Conclusion

87. Both the law and economics related to copyright are concerned predominately with policies aimed to promote the creation of new works. If the royalties fail to cover costs and provide a fair return, then the record labels, performers, and other rights holders have no incentive to create new works. If royalty rates are set only in regard to ensuring a profit for copyright users, no matter how sound or unsound the business of that user, then the incentive to create new work may be jeopardized in direct conflict with the expressed purpose of the law and the economics upon which that law is rooted.

88. As such, I remain of the opinion that SoundExchange's original rate proposal is reasonable in light of marketplace evidence. Given the record evidence, as discussed in my testimony, I also believe that the Court should consider application of a per-subscriber minimum. In light of these issues, as detailed below, Dr. Crawford's testimony has no probative value and Music Choice's proposed royalty rate should be rejected.

104 The calculation is: [redacted].
105 The calculation is: [redacted].
106 *See* PSS_365233.

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

Date: 7|2|12

George S. Ford

Exhibits Sponsored by George Ford

Exhibit No.	Description
SX Ex 351-RP	David Del Beccaro Testimony from SDARS I Proceeding, October 30, 2006
SX Ex. 352-RP	"The Elusive Symbiosis: The Impact of Radio on the Record Industry" (Review of Economic Research on Copyright Issues, 2004)
SX Ex. 353-RP	"Don't Play it Again Sam: Radio Play, Record Sales, and Property Rights", January 5, 2007
SX Ex. 354-RP	"Beyond Product Substitution: The Impact of Satellite Radio on Sales of CDs and Music Downloads", September 11, 2007
SX Ex. 355-RR	"Music Choice and Time Warner Cable", January 2012 (PSS_023626)
SX Ex. 356-RR	Music Choice Partner Affiliation Agreement with Time Warner, January 21, 2000 (PSS_361793)
SX Ex. 357-RR	Music Choice Partner Affiliation Agreement with Cox Communications, November 15, 2005 (PSS_358339)
SX Ex. 358-RR	Music Choice Music Video Network Business Plan, December 2008 (PSS_011950)
SX Ex. 359-RR	Email from R. Dawson to A. Rosenberg and E. Goldberg re SWRV, May 21, 2010 (PSS_021517)
SX Ex. 360-RR	Music Choice Consolidated Balance Sheet, December 2008 (PSS_021199)
SX Ex. 361-RR	Music Choice Consolidated Balance Sheet, December 2009 (PSS_021218)
SX Ex. 362-RR	Music Choice 2007-2008 Consolidated Financial Statements

Appendix A. Favorable Treatment of Partners

Let $D(P)$ denote the demand for streaming music from the multichannel video providers given a price P. Let τ denote the percent-of-revenue royalty rate that Music Choice has to pay to the music rights holders (e.g., SoundExchange). I normalize other costs to zero for pure convenience. Music Choice's profit maximization problem is:

$$\max_{P}\{(1-\tau)PD(P)\} \tag{1}$$

Note that the royalty rate operates mathematically as a "tax" on revenues. I assume a strictly concave profit function for a well-defined maximization problem (e.g. a standard linear demand curve would suffice). This assumption implies the marginal revenue function (MR) will be a decreasing function and the first-order condition to the maximization implies:

$$D(P^*)-P^*D'(P^*)=MR(P^*)=0. \tag{2}$$

Now, suppose a fraction θ of the network demand is from Music Choice's Partners that have common ownership with the company. Let $\pi_n(P)$ denote the profit function of the cable-operator Partners. Note that this will clearly be a decreasing function since P is a cost for the video providers. The profit maximization problem across the common ownership arrangement is given as:

$$\max_{P,P_o}\{(1-\theta)[(1-\tau)PD(P)]+\theta[(1-\tau)P_oD(P_o)+\pi_n(P_o)]\} \tag{3}$$

Note that P is price charged to non-owners and P_o is the price charged to the Partners. The first-order condition for P_o implies:

$$MR(P_o^*)=\frac{-\pi_n'}{(1-\tau)}>0=MR(P^*). \tag{4}$$

Thus,

$$MR(P_o^*)>MR(P^*). \tag{5}$$

Since marginal revenue is a decreasing function, we have that

$$P_o^*<P^*. \tag{6}$$

In other words, the Partners are given a lower price, thus shielding the joint profits from the percent-of-revenue royalty rate paid to the music rights holders (which acts like a "tax").

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

REBUTTAL TESTIMONY OF

JONATHAN BENDER

Chief Operating Officer of SoundExchange, Inc.

PUBLIC VERSION

Witness for SoundExchange, Inc.

Written Rebuttal Testimony of Jonathan Bender

I am the Chief Operating Officer of SoundExchange, Inc. ("SoundExchange"). I previously filed written direct testimony and provided oral testimony in this proceeding. My background and qualifications were set forth in my written direct testimony. I am submitting this rebuttal statement to explain how SoundExchange has responded in its revised rate proposal to issues raised in the direct phase of this proceeding concerning Sirius XM's direct licensing initiative.

When SoundExchange submitted its original rate proposal in this proceeding, it did not provide a mechanism for adjusting Sirius XM's royalty payments to reflect direct licensing. At that time, it simply had not been our experience with Sirius XM or any other licensee that direct licensing was a sufficiently material phenomenon that it was worth the difficulty of implementing such an adjustment.[1] Instead, our primary concern was making the revenue definition clearer and more certain to minimize the risk of gaming and manipulation and make royalty calculations more transparent for SoundExchange and the copyright owners and performers it represents. In addition, because Sirius XM's reporting to SoundExchange contains many errors and is missing certain data elements,[2] we are concerned that any direct license

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[1] We were aware that Sirius XM had been approaching record labels and offering a direct license, and had even been informed by Sirius XM that they had executed at least some direct licenses. We did not, however, know how many licenses had been executed, or with which record labels, or what the relevant terms were of any direct licenses.

[2] For example, in Sirius XM's reports of use for the last three months of 2011, the percentage of data lines with a blank label name field jumped to approximately [[redacted]]. SoundExchange was ultimately able to identify almost all of the copyright owners that Sirius XM did not, but if Sirius XM is not able to report this information to us, I do not understand how it would know what usage to associate with direct licenses. I understand that when Ron Gertz testified in this proceeding, he confirmed the existence of errors and omissions in Sirius XM's data. 6/7/12 Tr. 909:14-912:19, 923:22-926:6 (Gertz). While Mr. Gertz expressed the view that these errors would get cleaned up over time, I am skeptical. When Sirius XM overpays a direct licensor and does not report the usage to SoundExchange, the direct licensor is poorly motivated to report the

adjustment would not be implemented accurately, and instead believe that such an adjustment would become a subject of disputes in audits. Nonetheless, because direct licensing has become a conspicuous issue in this proceeding, SoundExchange now proposes a mechanism for making a direct license adjustment in a way that would be fair and transparent.

Overview of SoundExchange's Proposed Adjustment

Making an adjustment for direct licensing requires determining the relative value of statutory usage and directly-licensed usage. Making this kind of allocation among different licenses is not unusual. I understand that licenses entered into by record companies often specify a percentage of revenue rate that assumes 100% usage of the licensor's recordings, and then provide for payment of only that licensor's proportionate share of the product of the service's gross revenues and the agreed-upon percentage rate.

The same kind of approach may be workable here if the Judges agree that it is necessary to provide a direct license adjustment, provided that there is a way to measure or approximate actual usage, as opposed to simply "spins." Because the statutory license provides Sirius XM access to 100% of the sound recording repertoire, Sirius XM's basic royalty payment would be the product of its gross revenues and the statutory percentage rate. However, to the extent that Sirius XM relies upon direct licenses, its payment would be reduced in a manner proportionate to the value of the directly-licensed usage. In SoundExchange's rate proposal, we refer to this percentage reduction as the "Direct License Share."

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overpayment, and SoundExchange has no ability to detect the problem. Thus, if direct licensing becomes a material phenomenon, it will be important in a future notice and recordkeeping proceeding to provide for delivery to SoundExchange of all usage data, identifying which tracks are assertedly direct-licensed, so that SoundExchange can detect instances in which tracks are improperly treated as directly-licensed.

It bears emphasis that such an adjustment is quite separate and distinct from the concept of revenue. Sirius XM does not provide separately-priced music channels using only directly-licensed recordings. Accordingly, Sirius XM's use of directly-licensed recordings has nothing to do with revenue recognition.[3] In specifying a statutory rate structure for the coming rate period, Sirius XM's gross revenues should be defined in a manner consistent with generally-accepted accounting principles and Sirius XM's own accounting for and reporting of its revenue. Any adjustment of Sirius XM's royalty payments to reflect direct licensing should be dealt with separate and apart from the question of what should be considered an appropriate definition of Sirius XM's gross revenues from the provision of a satellite radio service.[4]

<u>Determining the Direct License Share</u>

If Sirius XM is committed to direct licensing, it is easy to contend that there should be some mechanism for adjusting its royalty payments to reflect the value of directly-licensed usage. It is more difficult to implement such an adjustment fairly, given limitations of the system architecture Sirius XM has chosen to implement and the data Sirius XM has chosen to collect.

I understand that in voluntary license agreements between record companies and interactive services, a licensor record company's proportionate share of royalties is commonly

[3] SoundExchange understands that Sirius XM has been helping itself to an adjustment for directly-licensed recordings based on the provision in the current regulations that allows an exclusion from "gross revenues" for "[r]evenues recognized by Licensee for the provision of . . . [c]hannels, programming, products and/or other services for which the performance of sound recordings and/or the making of ephemeral recordings . . . is separately licensed." 37 C.F.R. § 382.11. Because Sirius XM does not recognize revenue in a manner connected to its usage of directly-licensed recordings, the deduction it has been taking is improper under the current regulations.

[4] Assuming that a direct license adjustment is made separately from the definition of gross revenues, there should not also be an exclusion from gross revenues for directly-licensed recordings. That would effectively allow Sirius XM a double exclusion.

determined by counting plays to individual users. This approach is similar to the concept of a "performance" as that term is used in the context of statutory webcasting. *See* 37 C.F.R. § 380.2. Counting plays to individual users is a fair way to allocate a percentage of revenue between usage covered by an agreement and usage not covered by an agreement, because a licensor will be paid in proportion to consumer demand for, and usage of, its recordings.

However, for Sirius XM's satellite radio service, allocating between statutory usage and directly-licensed usage based on counting all plays on all channels as equal (*i.e.*, counting "spins") would *not* be fair, because such an approach would equally value usage of directly-licensed recordings on less popular channels, and during day parts with fewer listeners, as compared with plays on more popular channels during day parts with more listeners. Because Sirius XM has control over what it plays, it could unfairly reduce its royalty payments under the statutory license by loading less popular channels and off-hours with directly-licensed recordings.[5]

So far, Sirius XM has relied on statutory licensing to acquire rights to the more popular "hit" recordings it needs to draw a mass audience to its service (including the "top 40" recordings, which are typically released by major record labels). The price it must pay for those recordings should not be reduced due to usage if hardly anyone is listening to music acquired under discounted direct licenses.

[5] For example, I understand that Sirius XM has a direct license deal with Bonsound, which is a French-Canadian label. I understand that Sirius XM provides French-Canadian programming in Canada to, among other things, meet Canadian government content requirements. *See* CIMA, Canadian Broadcast Regulator Approves Satellite Subscription Radio Services, *available at* http://www.cimamusic.ca/Page.asp?PageID=122&ContentID=803&SiteNodeID=66. Sirius XM provides French-Canadian programming in the U.S. because it shares its satellites with its Canadian affiliate, but that programming should not be given disproportionate weight in calculating any direct license deduction.

A fair adjustment for direct licensing must thus take into account the extent to which subscribers actually listen to directly-licensed recordings. The more precisely such an adjustment does that, the fairer it will be. In SoundExchange's revised rate proposal, we have proposed that the Direct License Share (*i.e.*, the percentage reduction in the payable statutory royalty amount due to direct licensing) correspond to (or approximate) the proportion of listens for which an SDARS relies upon direct licenses rather than the statutory license. We propose four alternative means of computing the Direct License Share, in order of decreasing preference. These are set forth in detail in SoundExchange's revised rate request, and described briefly below. SoundExchange asks the Judges to adopt whichever one of these alternatives they consider the most appropriate approach to computing the Direct License Share.

<u>Alternative 1 – Direct License Share Based on Actual Total Performances</u>

Existing regulations require an SDARS either to include in its monthly reports of use the actual total performances of each sound recording used (*i.e.*, the number of times it is performed to one listener), or to report usage on a per-channel basis with the aggregate tuning hours for each channel (*i.e.*, the total hours of listening to the channel) and the play frequency of the individual recordings used on that channel. 37 C.F.R. § 370.4(d)(2)(vii). While the Judges' notice and recordkeeping regulations do not require reporting of directly-licensed recordings, either counting the number of times they are performed to one listener or including them in the aggregate tuning hours for a channel, in the same manner that is to be reported for other recordings, would provide a fair means for calculating the Direct License Share.

Our first preference would be to use actual total performances, because that is the fairest possible approach. It also would make the calculation very easy. For each month, across the whole satellite radio service, the actual total performances of directly-licensed recordings would be divided by the actual total performances of all recordings to determine the Direct License Share.

Alternative 2 – Direct License Share Based on Aggregate Tuning Hours

SoundExchange's next preferred mode for calculating the Direct License Share would use aggregate tuning hour data, which is to be reported on a per-channel per-month basis. This is less fair than SoundExchange's Alternative 1, because all plays on a channel in a month would have to be valued equally, whether a play occurred during morning or evening drive-time or in the middle of the night when presumably fewer people are listening. There is thus a risk that Sirius XM could manipulate this approach to reduce statutory royalty payments by playing less popular directly-licensed tracks on popular channels during day parts with lower listenership.

This approach also requires more computation than Alternative 1. Because the value to be assigned to directly-licensed usage will vary from channel to channel depending on the channel's aggregate tuning hours, this approach first requires using plays at the channel level to determine the approximate aggregate tuning hours of directly-licensed recordings on each channel, and then summing those numbers across channels. That sum would be divided by the total aggregate tuning hours of all recordings on the satellite radio service to determine the Direct License Share.

If Sirius XM were to provide aggregate tuning hour data on a per-channel basis and use it to determine the Direct License Share, SoundExchange would wish to use the same data to calculate royalty distributions to copyright owners and performers.

Alternative 3 – Direct License Share Based on Listenership Data

SoundExchange's third choice alternative for computing the Direct License Share is to use reliable third-party audience measurement data to determine the relative value of usage on Sirius XM's channels. Sirius XM has announced in the past that it has commissioned a third party to study listenership on its non-music channels.[6] Public sources also indicate that average quarter hour ("AQH") shares (an industry-standard measure of listenership) have been calculated for Sirius XM's non-music channels.[7] I understand that Sirius XM needs to have listenership data to be able to sell advertisements on its non-music channels. Alternative 3 would permit Sirius XM to use the same kind of data for music channels to compute the Direct License Share.

A significant question is what specific audience measurement data should be used in such an approach. It is hard for SoundExchange to answer this question without full knowledge of the listenership information that might be available to Sirius XM. Rather than identifying a specific data set, SoundExchange proposes that, for now, Sirius XM should be granted some discretion in selecting a reasonable data set. We have proposed only the general criteria that the data used must be (1) a statistically-valid measure of relative listenership on a channel (such as an AQH share) and (2) measured by a reputable, independent audience measurement firm.[8] There is also a question of how frequently listenership must be measured. Because Sirius XM varies its

[6] Arbitron Study of Satellite Radio Shows More Than 35 Million 'Premium' Listeners, *available at* http://investor.sirius.com/releasedetail.cfm?releaseid=437649.
[7] *E.g.*, Arbitron Makes It Official: Most Listened To Satellite Channels, *available at* http://www.infinitedial.com/2007/10/arbitron_makes_it_official_mos.php; Arbitron ratings for Satellite Radio, *available at* http://www.orbitcast.com/archives/arbitron-ratings-for-satellite-radio.html.
[8] If Alternative 3 were adopted, the specific data to be used might be addressed in a future notice and recordkeeping proceeding.

channels from time to time, and has offered special seasonal channels,[9] we believe listenership should be measured monthly to remain accurate.

A licensee only would be permitted to make an adjustment for direct licensing if it procured the necessary data and disclosed it to SoundExchange, just as the Judges' notice and recordkeeping regulations already require it to disclose the actual total performance or aggregate tuning hour data used in Alternative 1 and 2. It is important that SoundExchange have this data to be able to understand the calculations made by the licensee and to be able to distribute royalties to copyright owners and performers in a way that reflects the same relative valuation as used by the licensee in making its payment.

<u>Alternative 4 – Direct License Share Based on Analogous Internet Data</u>

SoundExchange's fourth alternative for computing the Direct License Share is to use actual listenership to Internet webcasts of Sirius XM's satellite channels. This approach is clearly practicable, because Sirius XM pays SoundExchange based on webcast performances. However, this approach is inferior to the alternatives described above, for several reasons:

- While Sirius XM webcasts almost all of its satellite music channels, there are some satellite music channels it does not webcast. Thus, webcasting cannot be used to measure relative listening on a channel-by-channel basis.
- The satellite music channels that Sirius XM does webcast may not use directly-licensed recordings to the same extent as satellite music channels that are not webcast. This should not be a significant issue so long as Sirius XM continues to webcast almost all of its satellite music channels, but would be a concern if Sirius

[9] *E.g.*, 'Tis the Season to Be Jolly with SIRIUS XM Radio's Five Channels of Commercial-Free Holiday Music, *available at* http://investor.siriusxm.com/releasedetail.cfm?ReleaseID=530124.

XM were to change its webcast offerings so they were no longer representative of its satellite offerings. A Direct License Share adjustment based on this Alternative 4 should not be available if that were to happen.

- Sirius XM's webcast listenership may not be fully representative of its satellite listenership.

While using Sirius XM's webcasting of satellite channels as a proxy is an imperfect means of determining the relative value of statutory-licensed uses and directly-licensed uses on its satellite radio service, it nonetheless seems much better than an approach that does not even attempt to take listenership into account.

The methodology for using webcast data to determine the Direct License Share is straightforward. First, one needs to identify the webcast channels to be used in the calculation. We refer to these as the "Reference Channels." These are webcast music channels that directly correspond to satellite channels. Internet-only channels should not be used in the calculation, because they do not necessarily bear any relationship to content on the satellite channels. Then, for each month, the Direct License Share is simply the result of dividing the Internet performances of directly-licensed recordings on the Reference Channels by the total number of Internet performances of all recordings on the Reference Channels. To provide transparency, it is important that Sirius disclose these calculations to SoundExchange.

Conclusion

SoundExchange's proposed direct license adjustment provides a fair and transparent mechanism to reflect the value of directly-licensed usage. If the Judges determine such an adjustment is warranted, they should adopt one of the four alternatives set forth in SoundExchange's revised rate request. They should not adopt any adjustment mechanism that would allow Sirius to make up an adjustment methodology that minimizes its royalty expense, that unfairly values plays of directly-licensed recordings to a small audience, or that is not clearly disclosed to SoundExchange.

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

Date: July 2, 2012

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

REBUTTAL TESTIMONY OF

AARON HARRISON

Vice President, Business & Legal Affairs,
Global Digital Business, UMG Recordings, Inc.

PUBLIC VERSION

Witness for SoundExchange, Inc.

Background and Qualifications

I am Vice President, Business & Legal Affairs, Global Digital Business for UMG Recordings, Inc. ("UMG"), a position I have held since 2008. Along with other members of the Business & Legal Affairs team for Global Digital Business, I negotiate deals with various digital music services that use UMG's repertoire of sound recordings, including download and ringtone stores, subscription and locker services, and interactive streaming services.

I was previously Senior Director, Business & Legal Affairs, eLabs, and I began my employment with UMG in 2005 as Director, Business & Legal Affairs, eLabs. Prior to joining UMG, I was an Associate at Manatt, Phelps & Phillips, LLP, where my practice focused primarily on talent representation and advising companies in the acquisition of intellectual property and promotional rights. I started my career as an Associate at Munger, Tolles & Olson, LLP in 1999.

I received a J.D. from Yale Law School and a B.A. in Economics from Pomona College. I am licensed to practice law in California.

Overview

I have reviewed the public versions of the written and oral direct testimony of Sirius XM witnesses Dr. Roger Noll, Mr. Steven Blatter, and Mr. Ron Gertz, as well as Music Choice witness Dr. Gregory Crawford. I am offering this testimony to rebut the direct testimony submitted by Sirius XM and Music Choice regarding the market rate for sound recordings on their services. I will provide the Copyright Royalty Judges with some insight into the way a deal negotiator for a major record label would view the benchmarks that Sirius XM and Music Choice witnesses have proposed in this proceeding. I will also explain why the claims made for the promotional effect of Sirius XM and Music Choice's programming would not be persuasive in a market negotiation for those services.

Agreements Discussed by Dr. Noll

The agreements that Dr. Noll has offered as benchmarks for the SDARS statutory license are outliers in the marketplace for sound recordings, and additional context is necessary to illustrate how a major record label would understand their financial terms. The Last.fm agreement with UMG is confined to a particular time period and cannot be understood in isolation from the unique legal circumstances that produced it. The Cricket agreement with UMG, meanwhile, prices a music service that is being packaged with a preexisting cellular phone service—and not just any cellular phone service, but one that reaches an otherwise challenging demographic sector. As for the direct licenses MRI negotiated on behalf of Sirius XM, UMG would never have accepted such a low royalty rate, and while certain features of the license may have appealed to a small segment of the independent record industry, those features do not hold the same interest for UMG.

Last.fm 2007-Era Agreements and the Shadow of the Statutory Rate

One of the benchmarks on which Dr. Noll relies is a set of five-year-old agreements with Last.fm. The Last.fm-UMG agreement is, as anyone can see, quite old—it predates the Final Determination of Rates and Terms in the *SDARS I* proceeding. *See* Noll Appendix H (UMG-Last.fm, executed 12/21/2007). Although Last.fm is still making limited payments to UMG under the 2007 license, its terms are long outdated. I know UMG would not agree to the same terms now. The Last.fm agreement thus demonstrates nothing about the value of music today.

The larger problem with putting this agreement to the use Dr. Noll has suggested, however, is that rates in "noninteractive" webcasting agreements are only marginally influenced by the parties' evaluations of how much the rights are worth. Instead, negotiations over these services are heavily constrained by the statutory rate for noninteractive webcasting.

The phrase "the shadow of the statutory rate" is not an abstract concept for those of us who negotiate deals for sound recordings. The precise boundary between interactive services that must enter into direct licenses and noninteractive services that can take advantage of the statutory license remains a hotly contested issue in discussions over custom radio offerings such as Last.fm's. The location of this boundary is, of course, ultimately a question for the courts. But this question was particularly unsettled during the period when the Last.fm agreement was being negotiated. At the time, certain copyright holders were engaged in litigation over a custom radio service called LAUNCHcast. In May of 2007, a jury found that the service was not "interactive" within the meaning of 17 U.S.C. § 114(j)(7); the Second Circuit affirmed this finding more than a year later in *Arista Records, et al. v. Launch Media, Inc.*, 578 F.3d 148 (2d Cir. 2009). In such an uncertain atmosphere (when copyright holders appeared to be losing the fight to require direct deals), the pull that the statutory rates always exert on "noninteractive" deals was magnified. [[redacted]]

The UMG-Last.fm deal is an outlier in other ways. [[redacted]

[redacted]

[redacted]]

A similar, if more refined, statutory dynamic plays out in negotiations with United States-based, "noninteractive" or semi-interactive services. Generally, a service asserts that it is not interested in a direct deal because it can always opt for the statutory license. Even if a service is

[1] [[redacted]]

interested in a direct license, the service argues that most of its competitors pay statutory rates, which therefore puts the service at a disadvantage with respect to profitability because it competes for the same users and advertising dollars as services that have a lower cost structure in the form of the statutory rate. If a direct deal is ultimately struck, its terms are inevitably tied to the statutory rate, whether explicitly or implicitly.

To suggest, as Dr. Noll has done, that the SDARS statutory rate should be based in part on the rates found in "noninteractive" direct deals is circular reasoning because the rates in direct deals would be higher if the statutory rate were higher. Dr. Noll is in effect arguing that the noninteractive statutory rate should be used to set another statutory rate. In my view, there is no substitute for fully voluntary agreements that are negotiated beyond the scope of the statutory license and the influence of previous rate-setting proceedings.

Cricket and Cellular Phone Bundling

Dr. Noll also uses the revenue rates in agreements with Cricket Communications to argue that the SDARS rate should reflect a smaller percentage of the satellite radio "bundle." It is true that the stated revenue rate in the UMG-Cricket agreement is adjusted to reflect the fact that the music service is not billed to the end user directly, but is packaged with a preexisting cellular phone service. But Dr. Noll's attempted analogy falls short in that, unlike satellite radio-delivered programming and the satellite radio delivery system, it is possible (and at the present time, more common) to purchase cellular phone service and music subscriptions separately. Whereas a Sirius XM subscription stripped of programming would be useless, the Cricket cellular phone service includes such vital functions as telephone service, email, texting, voicemail, and web browsing. *See* http://www.mycricket.com/cell-phone-plans#smartphone-plans. [[redacted]

[redacted]

[redacted]

[2] [[redacted]]

[redacted] As these terms indicate, a relatively low percentage-of-revenue rate in a cellular-phone bundle may reflect a very high percentage of a music service's receipts.

Finally, Dr. Noll's comparison ignores a very important characteristic of the prepaid cellular market. Because prepaid cellular phone users tend to be far less affluent than the typical subscriber to an interactive music service—not to mention the typical satellite radio subscriber—we see the function of prepaid bundle agreements differently than we see the function of other agreements. Muve Music reaches a segment of the United States population with relatively little discretionary income, and the Cricket deal bundles music with an essential service (i.e., phone service) that many individuals need to purchase notwithstanding their limited means. If a person with little discretionary income does *not* choose a Muve cell phone, we have theorized, chances are that he or she will not use any cash freed up by that decision to purchase another music product (such as Spotify) that channels a greater amount of revenue to UMG. To put this hypothesis another way, if Muve does not substitute for other services, and its users do not otherwise participate in many licensed music transactions, the Muve arrangement is tapping revenue sources that were not otherwise available to UMG. That function has independent strategic value, apart from the particular revenue rate indicated by the agreement.

[[redacted]

[redacted]]

None of the factors that justify a lower headline revenue rate for prepaid cellular phone services is applicable to satellite radio. Satellite radio music programming is not layered on top of a preexisting satellite plan with a very high, separately established market price, in the way that music services are layered on preexisting cellular phone plans. And satellite radio programming does not reach an otherwise untapped market for licensed music by bundling it with an unrelated essential service; rather, it is a luxury service that tends to attract affluent users who might have otherwise subscribed to a music service with a higher content fee to UMG. From my perspective, the Cricket agreement should be almost irrelevant to determining the appropriate rate for satellite radio.

The Direct Licenses Sirius XM Offered to Independent Labels

I have reviewed the sample direct license attached to David Frear's and Ronald Gertz's direct testimony as Exhibit 007, and I am confident that, had Universal Music Group been offered such a license, we would have turned it down. The list of reasons here may not be exhaustive, but it shows why UMG would not enter into such a license.

I understand the range of revenue rates reflected in such licenses is 5 to 7% of revenues, but larger labels with relatively larger and more popular catalogs (among those offered direct licenses) were offered rates on the higher end of the range. As the largest major label, UMG has an enormous catalog, and our music is featured across a wide range of Sirius XM programming. If UMG were offered a direct deal at a 7% revenue rate for satellite radio, we would have rejected it out of hand. (Jeff Harleston at UMG did meet briefly with David Frear, but UMG was never offered any particular royalty rate.)

The UMG catalog includes many of the industry's most prominent artists across today's most popular genres: Lady Gaga, Kanye West, Justin Bieber, Rihanna, Eminem, Maroon 5, Nicki Minaj, the Black Eyed Peas, Scott McCreery, Drake, Sugarland, and Martina McBride, just to name a few. These are the bands whose fans are fueling today's music industry. UMG's catalog also extends to some of the key artists of the last few decades, including U2, Lyle Lovett, and Guns n' Roses. Without them, many of Sirius XM's most popular channels would not exist. And it certainly is not the case that UMG would have been interested in accepting a direct license at a lower headline royalty rate on a promise that Sirius XM would play our music even more than they already do (which would be hard to believe).

In any case, the motivations of a small label that took this license—one that receives, for example, fewer than five hundred plays per month on the SDARS service—are very different from those of a major label with a vastly larger catalog. If a label is being paid little prior to signing a direct license, and a slight change in emphasis by programmers at Sirius XM could double or even triple the label's plays, it might be worth it to enter into a direct license at a lower rate because the aggregate payments to the label would be higher. In contrast, there is almost no way that Sirius XM could double—and certainly no way it could triple—its use of UMG content.

There are other issues with the direct license that I, as someone with a great deal of experience with both the statutory license and marketplace deals, would find objectionable. The method of compensation laid out in the direct license means that, among other changes, performances on Sirius XM's internet channels would be irrelevant to the royalty calculation. Under the direct license, internet channels would be paid not on the number of webcasting "performances," as the statutory webcasting license requires, but on a form of proxy compensation based on the ratio of UMG content to all content programmed across the entire satellite service (including niche programs with low listenership). Given the popularity of UMG's music, we would only be willing to enter into an agreement in which the basis of payment bears a stronger relationship to the relative popularity of channels. In addition, if a UMG track were played on an internet-only channel, that performance would receive no compensation whatsoever. Sirius XM has 31 online-only music channels. *See* SXM_CRB_DIR_EXP_00000750. Although I am not intimately familiar with the programming on those channels, it seems a safe bet that UMG content is heavily featured on Pop 2K (2000s Pop Hits) and Party Mega Mix (Pop, Rock, and Dance Party Songs), among other channels. *See id.* The labels that signed direct licenses may have evaluated these changes based on their own views of the importance of listenership and their own estimates of the number of internet-only channels that program their music, but those views cannot be attributed to other labels.

In addition, the direct license would pay for business establishment services (BES) and cable satellite services (CABSAT) on the same 7% revenue rate that is applied to the SDARS service. The statutory rate is 10% of gross revenues for BES, 37 C.F.R. § 384.3(a), and 15% of gross revenues for CABSAT. 37 C.F.R. § 383.3(a). Accepting a lower rate for those services makes no sense, and I have to assume that labels that took this deal were not aware of the current statutory rates for those services.

Given these considerations, it would be inappropriate to use the rates in these direct licenses to make any assumptions about labels that did not sign or (in the case of UMG) were not offered such a license.

Promotion and Substitution in Negotiations with Music Services

Sirius XM and Music Choice have both made the purported promotional value of their services a centerpiece of their rate proposal case. The anecdotal evidence contained in the testimony I have reviewed does not persuade me that these services' promotional effects, if any, outweigh their substitutional effects.

In an attempt to prove that Sirius XM is promotional, Mr. Blatter refers to emails sent by promotions representatives at various labels. Universal Music Group is a large company, and the attorneys who negotiate deals with interactive music services have very little contact with individuals employed in the promotions department. While it is important for negotiators to consider the relative promotional and substitutional characteristics of various music services, it is my understanding that people who work in the promotions department take this issue much less seriously, if they consider it at all. Their function is to promote records, and in carrying out their duties, they are agnostic about the platform on which the records are gaining attention or spins.

For negotiators, UMG's goal in all marketplace transactions is to ensure that the average revenue per music user is going up, rather than down. This requires consideration of the impact of each service on the market as a whole, not just the impact on download and physical sales.

Negotiators do try to factor in the risk that one service might cannibalize another, adversely affect digital record sales, or further depress physical record sales, wherever possible. I mentioned one example of this analysis when discussing the market for Cricket's Muve Music service, above. But there are limits in the degree to which UMG actually differentiates between services based on their supposedly promotional or substitutional character.

The fact remains that people have a limited number of hours in a day, and they generally use only one music delivery platform at a time. If someone has access to hundreds of carefully tailored satellite radio channels in her car, for example, she probably is not also carting along a large selection of CDs for the car's CD player. Similarly, if someone is tuned into Music Choice in the living room, he is probably not simultaneously calling up tracks on a MOG subscription. The more hours users dedicate to Sirius XM or Music Choice, the fewer hours they will have for other services, and the less likely they are to pay for separate music subscriptions.

This problem may be particularly acute for Sirius XM subscribers, since the Sirius XM subscription is so expensive compared to other digital music subscription services. It stands to reason that even if a $9.99 Spotify on-demand subscriber could be persuaded to pay an extra $3.00 per month for Pandora's custom radio offering, a Sirius XM subscriber who is already paying $14.49 per month might think twice about paying for an additional subscription, whether it costs $3.00 or $9.99. For this reason alone, I am skeptical of Sirius XM's claim that its service promotes record sales rather than inhibiting music spending. In fact, since the launch of satellite radio, record sales have fallen almost every year, while the number of satellite radio subscribers has grown.

Sirius XM and Music Choice have failed to persuade me that their services have an essentially promotional character. I am particularly surprised to see them dredging up old arguments about terrestrial radio when today's digital marketplace has upended so many comfortable beliefs about the way the record industry works. The fact that Sirius XM and Music Choice cannot offer robust, empirical studies showing that their services promote record sales and do not cannibalize other modes of licensed music consumption even now, when the stakes are so high, casts doubt on their claims.

Musical Works Benchmark

Dr. Crawford has proposed the rate paid by the PSS for musical works as a benchmark for the PSS sound recording rate. I understand that the Copyright Royalty Judges have rejected musical works rates as a benchmark in previous rate-setting proceedings. Such a benchmark continues to be inappropriate, given the market evidence showing that sound recordings are worth much more than musical works.

Dr. Crawford actually cites two of the best explanations for why sound recordings command greater market rates than music compositions in his own testimony. The written rebuttal testimony of Mark Eisenberg and Charles Ciongoli from *SDARS I*, which was admitted into evidence as Music Choice Exhibits 59 and 60, lays out in detail the reasons why sound command higher prices than do musical works. I will not repeat that testimony here, other than to point out that the significant differential between sound recording rates and musical works has not changed in the years since that proceeding. The following chart shows the gulf between the prevailing sound recording and musical works rates in UMG agreements for a variety of services:

Service	Sound Recording Rate (in UMG agreements)	Publishing Rate	Rough Multiple
Digital Downloads	[[redacted]]	$0.091 per track	[[redacted]]
Ringtones (Mastertones)	[[redacted]]	$0.24	[[redacted]]
On-Demand Music Videos	[[redacted]]	15% of UMG's receipts for synch rights, plus additional PRO fees	[[redacted]]
Portable Subscription Services	[[redacted]]	10.5% of revenue or $0.50 per sub, with a minimum of 21% of label fees	[[redacted]]

This consistently large differential across many disparate services demonstrates that there is no reasonable basis for deriving a statutory rate for sound recordings from the much lower rate for musical works.

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

Date: July 2, 2012

Aaron Harrison

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

REBUTTAL TESTIMONY OF

MICHAEL POWERS

President, Yellow Dog Records

PUBLIC VERSION

Witness for SoundExchange, Inc.

Written Rebuttal Testimony of Michael Powers

Background and Qualifications

My name is Mike Powers. I am the President of Yellow Dog Records, which I founded in 2002 with the goal of cultivating the American musical heritage. I had been in the technology industry for ten years, and was looking for an opportunity to build my own business in some area that would have particular meaning for me. On one visit to New Orleans, I enjoyed listening to street musicians playing acoustic blues and jug band music and realized that their audience reach was limited to people who happened to walk by that street in that city. I decided to use my skills in business and technology to start Yellow Dog Records in order to help roots musicians reach wider audiences.

The label features artists who emphasize innovative approaches to authentic American musical roots traditions — Blues, Jazz, Soul, and Americana styles. Yellow Dog Records' first album release was the Bluff City Backsliders in 2002, which was a band that I performed in at the time. Since then, Yellow Dog Records has released about thirty-five albums from about fifteen different artists. Some of our best-known artists include the Asylum Street Spankers, Eden Brent, Mary Flower, and The Soul of John Black. Yellow Dog Records generally releases between two and five albums a year.

I think of Yellow Dog Records as a boutique record label. While larger record labels may decide to release albums based on what is expected to appeal to the broadest audience and sell the most units, our strategy is to develop a well-respected brand name through a strong artistic focus. We are artistically selective in deciding which albums to record and release, and we believe that building a reputation for quality with an informed audience in genre niches will translate into business success. Both strategies -- mass-market and focused-niche approaches -- are sound business approaches, but give rise to different types of organizations with different market circumstances.

Direct License with Sirius XM

I am a fan of Sirius XM as a quality service that millions of listeners (including myself) enjoy. I genuinely appreciate their commercial role as a significant channel for converting audience demand into revenues for musicians through subscription and advertising fees shared with content owners via royalties and license fees. However, I was very surprised to learn that Sirius XM considers its direct licenses with independent labels including Yellow Dog Records as indicative of the rate that should be the basis of a statutory royalty rate for other content owners. During the course of negotiations with Sirius XM's representative MRI and when I signed the direct license, I was unaware that Sirius XM intended to use the direct license agreement as evidence in this rate-setting proceeding, and I was surprised to learn that Sirius XM had submitted the direct license royalty rate as evidence without my knowledge. I do not believe that the pro rata royalty rate that Yellow Dog Records agreed to in the direct license with Sirius XM is an appropriate basis for setting statutory royalty rates for the vast majority of record labels that have not signed direct licenses.

In early August 2011, Jake Terrell of MRI contacted Yellow Dog Records via email about a direct license. During email discussions, Mr. Terrell described multiple value propositions that such an arrangement could offer Yellow Dog Records and stated that the direct license "affords labels the opportunity of making more than they have made from SoundExchange under statutory licenses":

(i) A potential for additional royalties from other platforms covered by the direct license, which would be unavailable under the statutory regime.

(ii) A competitive rate due to the absence of SoundExchange administrative overhead deductions.

(iii) An expectation that Sirius XM would over time increase its reliance on more directly licensed recordings.

Value propositions (i) and (iii) were particularly attractive to me in ways that I will describe momentarily. Ultimately, I decided to sign the license in a "try it and see" spirit, because I wanted to pursue the upside offered by these value propositions. At the same time, I felt that any downside would be mitigated by a couple of factors:

(i) The limited term of the license (three years). I was aware that the statutory rate would increase to 8% in 2012 and that some industry sources (Billboard) reported it could be higher starting in 2013. I considered the 2012 rate to be essentially similar to the rate offered by MRI and so the period of "overlap" where the rates might meaningfully diverge to be limited to less than two years (Jan 2013 – Oct 2014).

(ii) The relatively small amount of revenue at risk. From 2009-2011 Yellow Dog Records' total revenues from SoundExchange averaged [[redacted]] (Royalties from Sirius XM were the majority, but not the totality, of those amounts, so the revenues and percentages specifically attributable to Sirius XM would be even lower figures.) Some back of the envelope calculations lead me to estimate that even if the statutory rate increased by as much as 50% during the two "overlap" years of 2013-2014, [[redacted]]. I did not view this as a "bet the farm" decision.

My decision to sign the direct license was based in significant part on features of the direct license other than the royalty rate. One of these was the prospects for "additional royalties from other platforms" described by MRI. I have long been of the mind that Sirius XM could leverage certain aspects of its platform to monetize content in ways additional to subscription fees and advertising revenues. For example, I can specifically recall a conversation, perhaps in 2007 or earlier, with Bill Wax, programmer of XM's Bluesville channel, where I suggested that XM could implement an in-receiver "purchase this song" feature. The music landscape is changing rapidly and it sounded as if Sirius

XM might finally be pursuing some "other platforms" to diversify its revenue streams. Although these prospects were unquantifiable, I thought they were worth a try.

I was also particularly interested by the "expectation that Sirius XM would over time increase its reliance on more directly licensed recordings". Although we have an excellent relationship with Sirius XM's Bluesville channel, there are several other channels where I believe our music could be a fit but is not receiving airplay. I know that programmers are overwhelmed with submissions and it can be difficult for the music to get the initial attention needed to build a reputation with programmers.

This is another area in which Yellow Dog Records' circumstances may differ from larger record labels. We often choose to work with emerging artists who we consider to have artistic excellence, but will not have pre-existing familiarity to programmers. Our promotional budgets are small in comparison to major labels and we don't have an option to create familiarity through "brute force". I felt that a direct license status could give us some initial visibility to programmers of additional channels to allow us to develop a reputation based on the merits of the music. Obviously, if we experienced additional airplay on new channels because of a direct license it would result in increased overall revenues, even if the base rate were lower than statutory. One note is that in the two royalty statements we have received from MRI since the beginning of the license term, they have continued to ask for current catalog information "so that SiriusXM programmers can expand the use of your repertoire within their service."

An additional appeal of the direct license was a technical issue related to accounting and revenue flow. [[redacted]

[redacted]].

[[redacted]]. As a result, the direct license royalty rate cannot be compared directly with the statutory license rate.

In conclusion, I do not believe that the rate in the Yellow Dog Records direct license is indicative of the rate that a larger record company necessarily would agree to for the use of its sound recordings. I have described several "added value" aspects of the direct license that have potential value to Yellow Dog Records over and above the base royalty rate. These aspects may represent propositions of varying value to other record labels in different circumstances. But the effect of these factors is that a simple comparison of direct license rate to statutory rate is not an "apples to apples" comparison. In order for the statutory rate to be considered equivalent in value to the direct license rate, it would necessarily need to be higher than the direct license rate in order to compensate for the added value aspects of the direct license.

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

Michael D. Powers

Date: __2 July 2012_______

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Michael Powers