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PROMOTIONAL EFFECTS AND THE DETERMINATION OF ROYALTY RATES FOR MUSIC

Abstract: When a terrestrial radio station plays a song during its over-the-air broadcast, the artists and their record labels receive no compensation for the sound recording right. Yet radio's digital competitors—including streaming services and satellite radio—do pay performance royalties to performers and their labels for the sound recording. Terrestrial radio's cost-advantage is not the result of marketplace deals or competitive forces, but from a statutory preference granted to radio broadcasters. Legislation aimed at leveling the playing field has been strongly resisted by broadcasters based on the claim that radio provides a promotional effect, or free advertising, for record labels and performers. In this BULLETIN, we demonstrate that any promotional effect is fully internalized in a marketplace bargain between the music and radio industries. As such, a promotional effect provides no basis for federal law to mandate the free use of music by the radio broadcast industry.

I. Introduction

U.S. Copyright law protects sound recordings from unauthorized reproduction, unauthorized distribution, and unauthorized performances.¹ Consequently, the use or distribution of sound recordings typically requires permission from—and compensation to—the relevant rights holders in the recording, including both composers (a *musical works right*)

¹ *Copyright Registration for Sound Recordings: Circa 56*, U.S. Copyright Office (July 2014) (available at: <http://copyright.gov/circs/circ56.pdf>).

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and, germane to our analysis here, performers and their record labels (a *sound recording right*).² As with any input of production for a firm, digital music distribution platforms—whether advertising- or subscription-based—pay a performance right for sound recordings. Such compensation reflects, at least in part, both the value of music to the user’s business plan and provides the income necessary to attract resources to the creation of new works.³ In contrast, the heaviest commercial users and beneficiaries of recorded music—the \$18 billion terrestrial radio industry—pay no performance royalties to artists and their record labels for sound recordings (although they do pay composers a performance royalty for musical works).⁴ The United States is the only democratic and industrialized nation that does not have laws compensating sound recording copyright owners for that public performance right on terrestrial radio.⁵

This exception is not the result of market transactions between the music and radio industries, nor the result of a decision by the Copyright Royalty Board.⁶ Rather, it is the U.S. Congress that exempts the broadcast radio industry from having to pay sound recording royalties, giving the radio industry a unique and material cost advantage over emerging and rival distribution platforms.⁷ A proposed remedy to this disparity is the bipartisan legislation

² *Copyright Registration of Musical Compositions and Sound Recordings: Circa 56a*, U.S. Copyright Office (November 2012) (available at: <http://copyright.gov/circs/circ56a.pdf>).

³ Over the past fifteen years, revenues from the distribution of recorded music has fallen by 40%, from \$26.6 billion in 1999 to only \$15 billion in 2014. This decline has many causes including, among others, the switch from physical to digital media, music streaming, and digital piracy. Royalties from digital platforms is on the rise, though such sales have thus far been insufficient to offset the 40% decline in music industry revenues over the past fifteen years. T. Ingham, *Global Record Industry Income Drops Below \$15BN for First Time in Decades*, MUSIC BUSINESS WORLDWIDE (April 14, 2015) (available at: <http://www.musicbusinessworldwide.com/global-record-industry-income-drops-below-15bn-for-first-time-in-history>).

⁴ *Revenue Trend Chart*, Radio Advertising Bureau (available at: <http://www.rab.com/public/pr/rev-pr.cfm?section=adv>).

⁵ See M. Jolson, *Congress Killed the Radio Star: Revisiting the Terrestrial Radio Sound Recording Exemption in 2015*, 2 COLUMBIA BUSINESS LAW REVIEW 764, 766-68 (2015); B.T. Yeh, *Copyright Licensing in Music Distribution, Reproduction, and Public Performance*, CONGRESSIONAL RESEARCH SERVICE REPORT 7-5700 (September 2015) at 22-23; *Copyright and the Music Marketplace, A Report of the Register of Copyrights* (February 2015) at 138 (hereinafter “*Register of Copyrights 2015 Report*”).

⁶ The Copyright Royalty Board determines the royalty rates and distributions for a variety of services subject to a compulsory license for music (see <https://www.loc.gov/crb>).

⁷ For a good historical overview of this issue, see, e.g., B.H. Nemeca, *No More Rockin’ in the Free World: Removing the Radio Broadcast Exemption*, 9 JOHN MARSHALL REVIEW OF INTELLECTUAL PROPERTY LAW 935-952 (2010) (available at: <http://repository.jmls.edu/ripl/vol9/iss4/6>); W.W. Shields, J.S. Becker and S. Hutton, *The Fair Play, Fair Pay Act of 2015: What’s At Stake and For Whom?* BOSTON COLLEGE INTELLECTUAL PROPERTY AND TECHNOLOGY FORUM (Fall 2015) at 2 (available at: <http://bcipf.org/wp-content/uploads/2015/10/Shields-PPFPA.pdf>); W.

(Footnote Continued...)

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known as the *Fair Play Fair Pay Act* (H.R. 1733), which seeks to put Internet, satellite, cable, and AM/FM radio on equal footing by requiring the payment of royalties for the sound recording right.⁸

The broadcast industry's opposition to the *Fair Play Fair Pay Act*, and similar legislative attempts requiring the payment of royalties, hinges on a single argument—the promotional effect of radio on music sales. According to the National Association of Broadcasters (“NAB”), terrestrial radio is the recording industry’s “greatest promotional tool” and constitutes “free advertising.”⁹ A few economic studies have attempted to quantify this promotional effect with opposing conclusions,¹⁰ though a more recent study by the Government Accountability Office (“GAO”) studied the issue carefully and found no systematic evidence of a promotional effect for individual songs and artists.¹¹ Likewise, the U.S. Copyright Office casts doubt on the

Henslee, *What's Wrong with U.S.?: Why the United States Should have a Public Performance Right for Sound Recordings*, 13 VANDERBILT JOURNAL OF ENTERTAINMENT AND TECHNOLOGY LAW 739 (2011) (available at: http://www.jetlaw.org/wp-content/journal-pdfs/Henslee_PDF.pdf); C.C. Anderson, *We Can Work It Out: A Chance to Level the Playing Field for Radio Broadcasters*, 11 NORTH CAROLINA JOURNAL OF LAW & TECHNOLOGY ONLINE EDITION 72 (2009) (available at: <http://www.ncjolt.org/sites/default/files/Anderson.pdf>).

⁸ The text of the bill is available at: <https://www.congress.gov/bill/114th-congress/house-bill/1733/text>; see also B.T. Yeh, *supra* n. 5; R. Lewis, *Fair Play, Fair Pay Act of 2015 Would Require Radio to Pay for Music*, LOS ANGELES TIMES (April 23, 2015) (available at: <http://www.latimes.com/entertainment/music/posts/la-et-ms-fair-play-fair-pay-act-congress-radio-royalties-20150413-story.html>).

⁹ *Congressionally-Mandated Performance Tax Puts Local Jobs at Risk*, National Association of Broadcasters (Undated) (available at: <http://nab.org/advocacy/issue.asp?id=1889&issueid=1002>) (“For more than 80 years, record labels and performers have thrived from radio airplay—which is essentially free advertising—from radio broadcasters. Free, broadcast radio touches more than 245 million listeners a week, a number that dwarfs the reach of Internet and satellite radio.”; “Local radio continues to be the top source for those seeking to learn about new music, far surpassing online and other sources. Free radio airplay provides the record industry increased popularity, visibility and record sales for both established and upcoming artists. The promotion by local radio goes beyond the music to include concert and festival promotion, on-air interviews and online social media marketing.”; “The fact is that big record labels find themselves struggling economically and are seeking to recoup revenues on the backs of local radio stations that are, ironically, their greatest promotional tool.”).

¹⁰ James Dertouzos, an expert for the broadcast industry, claims his work shows a powerful promotional effect; others disagree. Professor Liebowitz of the University of Texas-Dallas provides evidence that while broadcast radio may promote sales of certain songs in its highly repetitive and narrow repertoire, broadcast radio actually reduces the overall sales of music. J. Dertouzos, *Radio Airplay and the Record Industry: An Economic Analysis*, Written for the National Association of Broadcasters (June 2008) (available at: https://www.nab.org/documents/resources/061008_Dertouzos_Ptax.pdf); S.J. Liebowitz, *The Elusive Symbiosis: The Impact of Radio on the Record Industry*, 1 REVIEW OF ECONOMIC RESEARCH ON COPYRIGHT ISSUES 93-118 (2004) (available at: <http://www.serci.org/docs/liebowitz.pdf>).

¹¹ *The Proposed Performance Rights Act Would Result in Additional Costs for Broadcast Radio Stations and Additional Revenue for Record Companies, Musicians, and Performers*, Government Accountability Office, GAO-10-826 (August 2010) (hereinafter “GAO Report”) (available at: <http://www.gao.gov/products/GAO-10-826>).

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relevance of the promotional effect and calls on Congress to reconsider the performance right exemption for terrestrial radio.¹²

Resolving this empirical dispute is beyond the scope of this BULLETIN, and for good reason. As we demonstrate here, the presence or absence of a promotional effect provides no grounds for a refusal to recognize the performance right in sound recordings for radio broadcasters. To do so, we present an economic model of the bargain between the music industry and commercial users of music over a royalty price in the presence of a promotional effect. We show that a market-negotiated royalty rate balances the income derived by commercial users of music and any promotional effect those users provide, revealing that any promotional effect is fully internalized by the parties. That is, if the promotional effect is large enough to justify a zero royalty rate, then the music industry will voluntarily accept a zero rate in a market negotiation. If not, then a positive royalty rate will be established. Promotion provides no basis for federal law to mandate the free use of music by the radio broadcast industry. Promotional effects, even if present and strong, are not a type of market failure requiring a legislative or regulatory fix.

II. Royalty Rates and Promotional Effects

Whenever you hear a song played on the radio, there are two key copyrights involved. The first right is known as the “musical work” right, which is generally comprised of a composer’s music or a lyricist’s accompanying words (although these rights are often transferred to a music publisher).¹³ Separate and apart from the “musical work” right is the “sound recording” right, which is an original work of authorship “result[ing] from the fixation of a series of musical, spoken or other sounds” in a tangible medium of expression.¹⁴ So, stating the matter simply, the musical work is what you see when you buy sheet music for a song, and the sound recording is what you listen to when you hear the song played on the radio.¹⁵ While the same artist may hold both the musical work and the sound recording rights, that is very often not the case. For example, Sinéad O’Connor received performance royalties for the sound recording right for “Nothing Compares 2 U,” but performance royalties for the musical work right were

¹² *Register of Copyrights 2015 Report, supra n. 5* at pp. 43-5, 87-89, 138-9.

¹³ *See* 17 U.S.C. §§ (1)-(5).

¹⁴ 17 U.S.C. § 101.

¹⁵ *Shields, et. al., supra n. 7.*

received by the song's writer, Prince Rogers Nelson.¹⁶ While there are multiple versions of "Nothing Compares 2 U" recorded, Prince (and his publisher) hold the right to the composition.

Under the current state of the law, anytime a song is played to the public, the distributor – regardless of whether it is terrestrial broadcast radio, satellite radio, Internet radio, etc. – must pay a performance royalty for the musical work.¹⁷ In the U.S., these royalties are paid to and distributed by collectives such as ASCAP, BMI and SESAC, and typically total between 3% to 5% of the user's revenues.¹⁸ However, under Section 106(6) of the Copyright Act, distributors must pay a performance royalty for sound recordings only when such recordings are conveyed "by means of a digital audio transmission."¹⁹ What this provision means in layman's terms is that while satellite and Internet radio distributors must pay a performance royalty to labels and artists for the sound recording right (via the collective SoundExchange), analog AM and FM terrestrial radio stations do not.²⁰

Both the music industry and the Copyright Office have been advocating for decades to implement a sound recording performance right for terrestrial radio, though thus far without success.²¹ Unsurprisingly, every attempt to level the playing field among music distribution modalities with respect to the sound recording right has met fierce opposition by the American broadcasting industry, including the *Fair Play Fair Pay Act*. At the heart of the broadcasters' advocacy is the argument that they provide free publicity and promotion for music and, as such, performers and producers of sound recordings are handsomely compensated through subsequent album sales, concerts and assorted merchandise. As observed by economist James Dertouzos in a paper written for the NAB,

For decades, radio has provided programming to listeners free of charge, introducing its audiences to new types of music entertainment and new recording artists. It is widely believed that radio stations, record labels and recording artists enjoy a symbiotic relationship, meaning, the record industry

¹⁶ K. McLeod and P. DiCola, *CREATIVE LICENSE: THE LAW AND CULTURE OF DIGITAL SAMPLING* (2011) at Ch. 3. Royalties are shared, to varying degrees, with artists and the record labels.

¹⁷ 47 U.S.C. § 106; C.A. *Tune, Licensing and Royalty Basic for "Broadcasting" Music over the Internet: Communications Broadcast Advisory*, Pillsbury, Winthrop, Shaw & Pittman, LLP (December 2006) at p. 2 (available at: <http://www.pillsburylaw.com/siteFiles/Publications/D283527A6557CBCA2E504BFB0E94E281.pdf>); *Revenue Trend Chart*, *supra* n. 4.

¹⁸ Anderson, *supra* n. 7, at p. 192; www.ascap.com; www.bmi.com; www.sesac.com.

¹⁹ 47 U.S.C. § 106(6).

²⁰ www.soundexchange.com.

²¹ A call repeated by the Registrar as recently as 2015. See *Register of Copyrights 2015 Report*, *supra* n. 5.

utilizes radio to promote its artists and music to hundreds of millions of radio listeners, while radio attracts listeners and advertisers by airing this recorded music. Generally, radio's music promotion is understood to stimulate the purchase of recordings, merchandise and concert tickets by the listening audience.²²

According to the broadcasters, the Congressionally-mandated zero-royalty for the recording right reflects a balanced, "symbiotic" relationship.²³ Historically, Members of Congress have pointed to this argument as grounds for maintaining the radio industry's preferred status, contending that Congress should "do nothing to change or jeopardize the mutually beneficial economic relationship between the recording and traditional broadcasting industries."²⁴ The sentiment is echoed by Dertouzos, observing "radio airplay increases music sales and that performing artists and record labels profit from exposure provided by radio airplay" and that a positive royalty for the recording right would "disturb[] the current symbiotic relationship that is found to exist between radio and the record industry could actually harm, not help, all parties."²⁵

Dertouzos' statement (and those like it) exposes a fundamental error in the NAB's position. If a positive royalty causes "harm" to the music industry in terms of reduced profits (relative to a zero rate), then the music industry – as rational actors – would simply choose not to impose it. We suspect few would argue that the music industry doesn't have profit maximization as its objective. In effect, the broadcasters are arguing that Congress must protect the music industry from its own ignorance about what is best for the music industry.²⁶ As such, using the "symbiotic" and "promotional" story lines to support legislative rate-setting has dubious economic basis, a point we address in the next section.

²² Dertouzos, *supra* n. 10 at p. 4.

²³ See Yeh, *supra* n. 5 at 24 and citations therein.

²⁴ See Senate Report No. 104-128, DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS ACT OF 1995 (August 4, 1995) at 14-15; House Report 104-274, DIGITAL PERFORMANCE RIGHT IN SOUND RECORDINGS ACT OF 1995 (October 11, 1995) at 13.

²⁵ Dertouzos, *supra* n. 10 at p. 5-6.

²⁶ In fact, the NAB makes exactly this argument. *Comments of the National Association of Broadcasters, IN the Matter of Music Licensing Study: Notice and Request for Public Comment*, U.S. Copyright Office, Docket No. 2014-03 (May 23, 2014) at p. 18 (available at: http://copyright.gov/docs/musiclicensingstudy/comments/Docket2014_3/National_Association_of_Broadcasters_MLS_2014.pdf) ("these high sound recording rates do not maximize revenues for recording companies and artists; indeed, lower, fair, and reasonable rates could actually increase revenues to those parties.").

III. Bargaining for a Royalty Rate

We now turn to a very basic question: does the presence of a promotional effect somehow impede a bargain between radio stations and copyright holders? Our interest is not in determining whether or not a promotional effect exists for radio play or to quantify such effects. We find it plausible that the music played on radio stations exposes listeners to songs that may be subsequently purchased, though this promotion may be limited to certain artists and need not be beneficial to a record label or the music industry as a whole. As we show, promoting the sales of some artists is not the relevant question; what *is* relevant is the income (*i.e.*, incremental gross profits) to the performers and record labels resulting from radio play.²⁷ It is not the mix of music purchased that matters, but whether or not radio promotes total music sales of the negotiating party's catalog. It's certainly not clear that radio increases total music sales. In fact, historical evidence suggests record sales fell upon the advent of radio, though radio likely altered the mix of what was being purchased.²⁸ It is also true that the terrestrial radio industry relies on music to generate the audiences it sells to advertisers to earn income. Music is the most essential input of production for the radio industry, with 70% of commercial stations broadcasting music; these stations account for about 80% of commercial radio revenues.²⁹ As Grammy-winning artist Herbie Hancock astutely observed: "[w]hile there is no question that radio promotes music, it is also clear that music promotes radio."³⁰

A. Nash Bargaining Model for the Royalty Price

To answer the question about promotional effects and marketplace transactions, consider a Nash bargain between terrestrial radio stations (denoted r) and copyright owners of the music those stations play (denoted m). These two parties sit down at a table to bargain over the

²⁷ Even though radio station play may promote the particular songs played, such play may also substitute for music purchases in a number of ways. For a full discussion, see Liebowitz, *supra* n. 10. The relevant scale of the promotional effect depends on the party involved in the negotiation and the coverage of license rate. An artist setting a rate for his or her own content may be concerned with artist-specific promotion, but a record label will be interested only in the promotion of its entire catalog if the license rate applies to the entire catalog. Statutory licenses typically apply to all music, so a rate-determinative promotional effect must increase the sales (and gross profit) of all music.

²⁸ Liebowitz, *id.*; M. Bandoowala, *Radio Airplay, Digital Music Sales and the Fallacy of Composition in New Zealand*, 7 REVIEW OF ECONOMIC RESEARCH ON COPYRIGHT ISSUES 67-81 (2010) (available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1646647).

²⁹ GAO Report, *supra* n. 11 at p. 13.

³⁰ Hearing Before the Committee on the Judiciary House of Representatives One Hundred Eleventh Congress, First Session on H.R. 848, Serial No. 111-8, (March 10, 2009) at p. 192 (available at: http://judiciary.house.gov/files/hearings/printers/111th/111-8_47922.PDF).

royalty rate for music. In playing music in its broadcast, a radio station generates an audience that in turn leads to the station's advertising income equal to A ("music promotes radio"). Likewise, when their music is played by the station, the owners of the music rights benefit from a promotional effect equal to E ("radio promotes music"). The payoff for the radio station is $U_r = A - p$, which is equal to advertising income less the royalty rate paid for music (labeled p , which we assume for convenience to be a lump sum). The payoff for the copyright owners is $U_m = p + E$, which is equal to the royalty rate plus the income created by the promotional effect. Liebowitz (2004; 2008)³¹ and Bandookwala (2010),³² among others, posit that radio play may serve as a substitute for record purchases. If so, the promotional effect E will be negative, and there is no limitation on E taking negative values in this analysis.

Now, suppose the owners of the radio station and copyright owners engage in standard Nash bargaining over the price p .³³ Normalizing the disagreement utilities to zero for convenience, the equilibrium level for the price would solve:³⁴

$$\max_p \{(A - p)(p + E)\}. \quad (1)$$

The maximizing price for the Nash product will be:

$$p^* = \frac{1}{2}(A - E), \quad (2)$$

where the price is determined by the spread of advertising income and the promotional effect. As shown in Equation (2), any promotional effect, if it exists, does not, in isolation, determine the proper royalty rate.

Equation (2) makes it clear that the promotional effect influences the bargain. From the equation we see that the Nash bargaining price is a decreasing function of E , the value of the promotional effect to the copyright owner. Thus, the stronger the promotional effect (other things constant), the lower is the royalty price. Yet, Equation (2) also suggests that the presence of a promotional effect poses no hindrance to obtaining a market-based royalty price that fully accounts for such an effect.

³¹ *Supra* n. 10

³² *Supra* n. 28.

³³ J. Nash, *Non-Cooperative Games*, 54 THE ANNALS OF MATHEMATICS 286-295 (1951); A. Dixit and S. Skeath, GAMES OF STRATEGY (2004).

³⁴ Disagreement points are the values the parties receive if the negotiation breaks down.

Equation (2) also shows that the bargaining price is an increasing function of A , the value of music to the radio station in generating advertising revenue. The final royalty rate, therefore, is based on the relative sizes of the station's income from the music and the copyright owner's income from the promotional effect. So, even if the promotional effect is quite large, then a positive royalty price may be negotiated if the advertising income from the use of the music is even larger. Alternately, if the promotional effect was larger than the advertising income, then the unregulated price resulting from bargaining could be at or near zero.

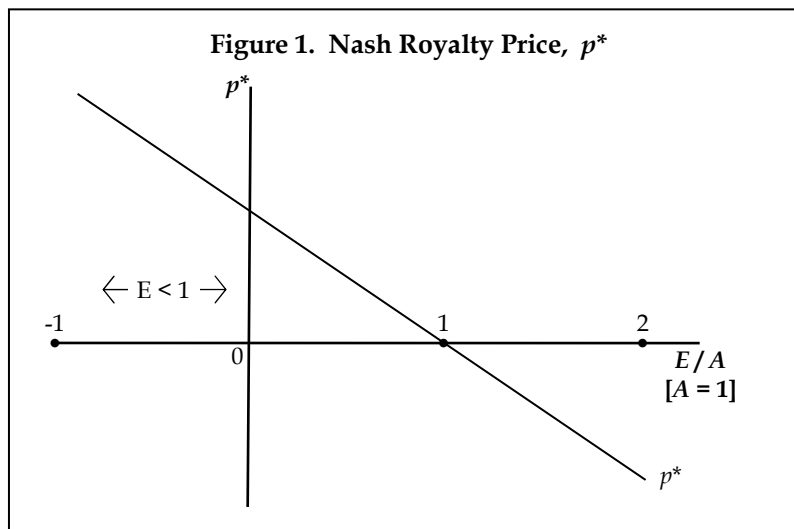
The results of the Nash bargaining model support the opinion expressed by the U.S. Register of Copyrights:

... the creation of a terrestrial sound recording performance right need not overlook or negate the question of promotional value, because this factor can be taken into account by a rate-setting authority, or in private negotiations, to arrive at an appropriate royalty rate. Such an approach would appear to be a rational solution because it seems fair to assume that a willing buyer and willing seller would do the same.³⁵

The Copyright Royalty Board has said the same, concluding that promotional effects (whether positive or negative) "are 'baked in' to a negotiated license rate."³⁶ A promotional effect, even if it exists and is quite large, requires no government intervention; a standard unregulated bargain between the radio station and the music owners will yield a price that incorporates the value of any promotional effect.

³⁵ *Register of Copyrights 2015 Report*, *supra* n. 5 at p. 139.

³⁶ *In re Determination of Royalty Rates and Terms for Ephemeral Recording and Digital Performance of Sound Recordings (Web IV)*, 81 FED. REG. 26316-01, 26318 (2016) ("promotion and substitution effects on royalty rates are 'baked in' to a negotiated license rate (at p. 26326)") (available at: <https://www.loc.gov/crb/web-iv/web-iv-determination-final.pdf>).



Equilibrium royalty prices are illustrated in Figure 1 for various values of E and A (where we assume A is held constant at 1 for purposes of the drawing the figure). On the vertical axis is the Nash royalty price. On the horizontal axis is the ratio of the promotional effect to advertising income (E/A , where $A = 1$) so that a rightward movement along the horizontal axis indicates an increase in the promotional effect relative to advertising income.³⁷ If E/A equals zero, then there is no promotional effect ($E = 0$, $A = 1$); if E/A equals 1, then E and A are equal; and so forth.

There is some dispute about whether radio play is promotional or actually reduces music sales. To account for this possibility, the figure also includes values for which E is negative (values to the left of the horizontal axis), which implies radio play reduces music sales. As shown in the figure, as the promotional value increases relative to the advertising value (a rightward move along the horizontal axis), the Nash royalty price goes from positive to negative. If $E/A < 1$, where the promotional value is small relative to the advertising income, then the royalty price is positive. When the two effects are equal ($E/A = 1$), then the royalty price is zero and the price becomes negative if $E > A$. The royalty price is highest when radio play substitutes for rather than promotes sales.

As shown clearly in the figure, a promotional effect alone says little about the royalty rate: the royalty price is determined by the relationship between advertising income and the

³⁷ For illustration purposes only, the value of E has a range of -1 to 2 while A is held constant at unity. If A is not held equal 1.0 for all values of E , then the figure is not valid.

promotional effect. A promotional effect, whether big or small, positive or negative, poses no barrier to a marketplace negotiation (even if before a rate-setting authority).

B. *Dynamic Considerations*

While this Nash bargain is a static one, we may think of this bargain regularly occurring over time to reflect changes in both *A* and *E*. Under changing conditions, an acceptable royalty in the past may not be an equilibrium in the future. For example, rampant music piracy has significantly reduced the value of any promotional effect from radio. Even if a radio spin introduces a listener to a song for which he or she wants a permanent copy, then the “promotion” may not lead to a revenue-generating sale but a pirated download. Thus, a promotional effect may have little if any impact on the revenues of labels and performers. Since 2000, global music revenues from permanent copies (e.g., CDs and downloads, which are typically the claimed benefactors of the promotion) have fallen by approximately 80% (in 2015 dollars), and digital piracy and other new services (e.g., YouTube) have likely played a significant role in this decline.³⁸ Unquestionably, with plummeting sales of the types of goods being “promoted,” the promotional effect is diminished, reducing income from any promotional effect and driving the equilibrium license fee upward. A promotional effect worth \$1 in 2000 is worth only 20-cents today.

Table 1. Medium Used to Learn About New Music

	2002	2010	2015
Internet	9%	31%	44%
Television	14%	12%	9%
Radio	63%	39%	32%

Source: Infinite Dial Series, Edison Research.

Furthermore, in recent years, some surveys suggest that digital music platforms, which pay recording rights royalties, have overtaken terrestrial radio in exposing listeners to new music. As shown in Table 1, a little over a decade ago 63% of consumers learned about new music on terrestrial radio, a number far greater than the 9% of listeners exposed to new music over the Internet.³⁹ In 2015, however, consumers listed the Internet as more important for music discovery (44%) than terrestrial radio (32%). Importantly, “learning about new music” is not indicative of a promotional effect—promotional effects relevant to license fee determinations matter only to the extent they result in higher (net) incomes for performers and labels. This

³⁸ Recording Industry Association of America (“RIAA”), *U.S. Sales Database* (available at <https://www.riaa.com/u-s-sales-database>).

³⁹ Data obtained from www.infinitedial.com.

evidence does suggest, at least, that promotion is not unique to terrestrial radio, and possibly even weaker than other listening modalities. Even television commercials can promote music sales and launch music careers.⁴⁰ Yet, unlike terrestrial radio, neither Internet-based music distribution or television content providers pay zero royalties to record labels and performers from the commercial use of music, despite the prospect of a promotional effect.

**Table 2. Sources for Keeping Up-to-Date with Music
(Those Saying Very important or Somewhat Important)**

	% Using Source		% Using Source
Friends/Family	70	Pandora	51
AM/FM Radio	69	Facebook	40
Music Television	39	Apple iTunes	31
Local Stores	32	iHeart Radio	20
SiriusXM Satellite Radio	23	Spotify	20
YouTube	61	Music Blogs	13

Source: Infinite Dial Series, Edison Research.

Table 2 further shows that radio does not stand alone in exposing people to new music. In fact, more consumers learn about music from friends and family than they do listening to the radio. Listeners also learn about music from music television, satellite radio, music streaming services, YouTube, and even music played over the speakers at local retail stores. All these alternatives pay for the music they use. If terrestrial radio reduces the use of any of these digital platforms, then that substitution reduces the income of performers and labels and counts as a negative promotional effect (pushing the license rate upward). While, again, such evidence does not demonstrate a promotional effect (which must be measured as income), one must ask *why*, given this type of evidence, that terrestrial radio is singled out for preferential treatment with respect to the recording right royalties.

C. Radio's Response to a Sound Recording Royalty

The bargain above assumes that both the advertising revenues and the promotional effect are not affected by the royalty price for a sound recording. It may be, however, that radio stations may reduce music use in the face of a performance royalty. As observed in the NAB study by Dertouzos, “[i]f a new performance fee were enacted, stations could reduce the amount of music airplay, change formats and even cease to operate, resulting in a loss of much

⁴⁰ See, e.g., A. Elliott, *The Apple Effect: Ads That Have Launched Music Careers*, MASHABLE.COM (July 05, 2010) (available at: <http://mashable.com/2010/07/05/apple-commercial-songs/#JvtBuoOnW5q3>).

of this promotional benefit.”⁴¹ To account for this possibility, we allow the royalty price to reduce both advertising income and the promotional effect. Such responses do not materially alter the conclusions.

To see the effect of radio’s response to a sound recording rights royalty, let both A and E be diminishing functions of p ,

$$A(p) = R_a - \theta_a p ; \quad (3)$$

$$E(p) = R_e - \theta_e p . \quad (4)$$

where we use a linear form for simplicity. Parameters R_a and R_e calibrate the value of the advertising impact and promotional effect (they are akin to A and E above), respectively, and these values adjust to the royalty price by the parameters θ_a and θ_e . The payoffs for the station owners and the copyright owners of the music are now $U_r = A(p) - p$ and $U_m = p + E(p)$.

If the owners of the radio station and owners of the copyright again engage in standard Nash bargaining over the royalty, then the maximizing price for the Nash product will be:

$$p^* = \frac{1}{2} \left(\frac{R_a}{1 + \theta_a} - \frac{R_e}{1 - \theta_e} \right) . \quad (5)$$

As before, the Nash bargaining price is a decreasing function of R_e , the parameter calibrating the value of the promotional effect to the music owner. The Nash price is also a decreasing function of any negative effects that the price may have on the advertising revenue or promotional effects (resulting from a reduced number of plays). Thus, a standard unregulated bargain between the radio station and the music owners will yield a price that incorporates the value of any promotional effects and any secondary impacts that a positive price might have on the number of plays.

As shown by this analysis, the presence of a promotional effect, even when the royalty price may have a complex relationship to advertising income and promotion, poses no barrier to a Nash bargaining solution. Once again, a promotional effect in no ways impedes a bargain between radio stations and copyright owners. If a promotional effect exists, then it is accounted for. Unlike the current situation where Congress sets the rate at zero, a bargain over the royalty allows the price to *properly* account for the promotional effect. Legislative intervention based on the presence of a promotional effect is unwarranted.

⁴¹ Dertouzos, *supra* n. 10, at pp. 5-6.

IV. Conclusion

Among others, artists, the music industry and the Copyright Office have encouraged Congress to reconsider the special treatment given to terrestrial radio broadcasters that exempts radio from paying royalties to record labels and performers. The latest attempt to level the playing field among music distribution modalities is the *Fair Play Fair Pay Act* currently under consideration. As expected, the broadcast industry is strongly opposed to the legislation, arguing that radio play promotes the sale of recorded music.

In this BULLETIN, we demonstrate that neither legislation nor regulation is required to address a promotional effect. Our economic model shows that a negotiation between the music and radio industries (or any other distribution modality) fully accounts for any promotional effect, even if there are complex, second order effects from the imposition of a positive royalty. Standard economics supports the U.S. Registrar of Copyrights' view that "promotional value [] can be taken into account by a rate-setting authority, or in private negotiations, to arrive at an appropriate royalty rate," and the Copyright Royalty Board's conclusion that promotional effects are "baked in" to market license rates. Royalty rates for radio broadcasters may be acceptably determined in market negotiations or under a "willing buyer, willing seller" standard adjudicated by the Copyright Royalty Board.

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