Before the
Copyright Royalty Judges
Library of Congress
Washington, D.C.

In the Matter of Mechanical and Digital Phonorecord Delivery Rate Adjustment Proceeding	Docket No. 2006-3 CRB DPRA

The Written Rebuttal Testimony of Margaret Guerin-Calvert

DiMA Trial Ex. 10

Before the
COPYRIGHT ROYALTY JUDGES
LIBRARY OF CONGRESS
Washington, D.C.

In the Matter of	)	
Mechanical and Digital Phonorecord Delivery Rate Adjustment Proceeding	)	Docket No. 2006-3 CRB DPRA

REBUTTAL TESTIMONY OF MARGARET E. GUERIN-CALVERT
APRIL 4, 2008

Rebuttal Testimony of Margaret E. Guerin-Calvert
On Behalf of Digital Media Association

I. Introduction and Overview

A. Background and Qualifications

1. I am Vice Chairman of Compass Lexecon, a consulting firm that specializes in antitrust economics and applied microeconomics, and Senior Managing Director of FTI. My qualifications are set out in greater detail in my expert report submitted in this matter in November 2006, and are updated in a current curriculum vita, which is at Attachment A.

B. Retention

2. I have been retained by the Digital Media Association ("DiMA")[1] as an economics expert to provide rebuttal testimony to the Copyright Royalty Judges (the "Court") concerning certain issues relevant for the setting of rates and terms for the making and distribution of digital phonorecord deliveries ("DPD"). In particular, I have been asked to review the record as set forth in testimony as well as supporting documentation or data on issues relevant to issues that I addressed in my initial expert report, including issues with regard to rate structure and methodology.

C. Basis for Opinions Offered

3. My opinions, which are based on my work to date, are presented in the remainder of this report.[2] My opinions expressed herein are based on my knowledge and experience in industrial organization economics, including evaluation of industry conditions, pricing, and innovation and build on the research and analyses that I conducted in preparation for my first report. I have supplemented that work with

[1] A listing of DiMA members can be found at http://www.digmedia.org/content/joinDima.cfm?content=members.

[2] I have been compensated for my work on this matter at my usual and customary rate of $750 per hour, and have been assisted by staff at Compass Lexecon in the customary manner for a matter of this type.

additional interviews of DiMA members, review of documents and materials, and review of testimony and reports presented by participants in this proceeding.[3]

D. Summary of Conclusions

4. Based on my empirical and economic analyses, the following are my conclusions in responses to issues raised during the presentation of the parties' direct cases:

- First, nothing in the direct testimony has altered my view that the most informative benchmarks for the Court are those that involve most closely analogous rights to those at issue in this proceeding and similar ranges of participants for comparable digital music use (e.g., downloads, subscription services). A cautionary note with regard to use of even these benchmarks is that this proceeding will set rates on a forward looking and industry-wide basis, including licensees who were not participants to benchmark agreements. Not all agreements are appropriate benchmarks: among the less informative potential benchmarks are agreements involving only single pairings of participants, "start-up" agreements, or those involving different products than those at issue in this proceeding.

- Essential and ongoing investments are needed in technologies to provide and enhance legal and royalty bearing distribution of digital music. Such investments are critical for ensuring returns to copyright holders and maximizing creative works, especially in a marketplace that includes significant piracy. The continued investments by digital music distributors over the last 18 months reinforce my view that there is continued evolution in demand from a world based on physical format to one focused on internet distribution which requires continued investment to compete effectively. Both subscription and permanent download models attract a substantial number of consumers but investments in catalogues, technology, and marketing are required to entice these consumers to make purchases on a regular basis. There is continued

[3] Although I consider the work I have done to be sufficient for me to render these opinions, I may supplement or modify my opinions based on any additional information that I receive. I also reserve the right to respond from an economic perspective to other filings in this matter subsequent to the filing of this report. Materials considered in forming my opinion are listed in Attachment B.

innovation and development, entry and exit, and continued pricing pressure. The problem with Internet file-sharing piracy remains an economic condition in the marketplace. Even substantial success in this environment by one or a few participants does not provide certainty with regard to customer retention, nor has it resulted in the movement of the industry to a single form of distribution – instead the industry is characterized by increased rather than reduced differentiation. The final rates and methodology should take this diversity into account.

- A rate structure based on a percent of revenue structure is superior to a cents-per-use (or so-called "penny rate") structure because it implicitly recognizes the need for royalty rate compensation based on a dynamic metric that reflects the dynamic nature of competition and industry structure Specifically, this report provides a brief response to questions or issues raised with regard to the practicality of revenue-based rate structures. This report also provides specific responses to the arguments that a penny rate is superior due to "ease of use" or "simplicity in calculation." Although there is apparent simplicity in applying a penny rate, derivation of the appropriate penny rate to apply requires complex and precise calibration of the correct rate(s) for each of several types of music services (e.g., subscription versus permanent downloads) and for constantly evolving economic and industry conditions. Even if the initial rate is appropriately derived, the copyright owners are requesting automatic future inflation *adjustments* (e.g., some form of inflation indexing) without regard to whether or not the final price of music consumed also can be inflation adjusted. Moreover, potential benchmarks are generally uninformative with regard to penny rates for subscription services, and rates developed in a physical world do not provide a readily translatable benchmark.

- In testimony, the Copyright Owners raise concerns about potential "gaps" in the coverage of a revenue-based rate structure. While appropriately derived non-disruptive minimum fees theoretically could address such gaps in coverage if they exist, a minimum fee creates substantial risks for new entrants and expanding firms, which in my opinion runs contrary to the statutory objectives governing this proceeding. In my opinion, the Court should proceed very cautiously in imposing

any minima in this developing and evolving marketplace. Similarly, any increase in the proposed percent of revenue rate above DiMA's initial recommended rates should be very carefully evaluated with regard to the effects on entrants and expanding firms.

- Lastly, before the Court is the issue of the appropriate mechanical royalty rate for copies that may be used solely for the purpose of facilitating interactive streaming of musical works. Application of the same economic framework used for evaluation of other mechanical royalty rates supports a conclusion that these royalties should be set at zero. I understand that the copyright owners are not seeking a mechanical royalty rate for copies that support non-interactive streaming. As an economic matter, the value distinction between interactive and non-interactive streaming arises from the nature of the public performance of the content or musical works requested by the user—i.e., the user experience of control over the content streamed. The possible value difference does not appear to emanate from differences in the reproduction or distribution to the user of any copies that may be created in order to facilitate the streaming. For this reason, the value of this consumption can be captured in public performance royalties; examination of public performance agreements shows such differences. Any statutory rate for interactive streaming should be at or near zero, or as close to zero as possible. Finally, I also consider the economic importance of clarifying the rights for copies made in the process of delivering licensed digital phonorecord deliveries.

E. Structure of the Report

5. The report is organized in the following way. Section II presents rebuttal testimony to specific points raised by Professor William Landes in his testimony on behalf of the Copyright Owners. Acknowledging my understanding that DiMA is proposing royalty rates above those originally offered and the adoption of minimum fees, Section III presents some cautionary recommendations to the Court in light of the Copyright Owners' request for even higher rates. Section IV addresses the issue of a royalty rate for interactive streaming, an issue proposed by the Copyright Owners. Lastly, Section V explains the importance of ensuring that the license to make and

distribute digital phonorecord deliveries includes all rights and payments required to engage in the licensed activity.

II. Economic Analysis of Professor Landes' Derivation of Rate Structure and Methodology

6. I have been asked to assess the economic foundations of the Copyright Owners' rate proposal as advanced by Professor Landes relative to those advanced in support of the DiMA and the RIAA proposals as provided to this Court in testimony. The central difference between the rate proposals offered by the Copyright Owners and DiMA is the rate structure, i.e., a penny rate versus a percent of revenue.[4]

A. Ability to Pay is Not a Statutory Objective of 801(b)(1)

7. The key assumption underlying Professor Landes' testimony is that copyright holders were granted and obtained "fair" compensation in 1981 based on an optimal rate per work. Since then, according to Professor Landes, copyright owners have been harmed by piracy and a related downturn in the demand for musical works in the form of CD sales. Therefore, he claims they should have their compensation increased in the form of a much higher royalty rate to compensate for these unforeseen new market conditions. Professor Landes fails to recognize that the more costly it is to make music available and sold legally, the greater the proportion of risk borne by the investor (digital music provider) and therefore, the greater the proportion of returns that should be accrued to the digital music provider to entice these investments. The potential pool of royalties available given piracy, therefore, is necessarily lower than would otherwise be due to the higher costs of investing in legitimate digital distribution of music. As a result, a "reasonable" license fee should be lower. Digital distributors must invest in innovative products to the user that distinguish their products from musical works available from non-legitimate sources. The ultimate consumer must find there is value added from legitimate sites that pay mechanical

[4] The issue of the specific percentage rate to be determined, and the definition of revenue against which the rate would be applied, are also relevant and are addressed later in this report.

royalties to copyright owners to generate sufficient sales to compensate both copyright owners and digital music providers.

8. The Section 801(b) statutory objectives are forward-looking. As a result, I believe the rates set in this proceeding should allow for and encourage, not deter new entry or expansion of models beyond those seen today—that is, rates calculated to achieve the statutory objectives ideally should foster continued innovation and evolution of the marketplace, not "lock" in place existing marketplace structure and conditions (participants, pricing, etc.). This is a dynamic and still evolving industry, with development of new business models, modification of current ones, and responsiveness of participants to consumer demand in a highly competitive setting.[5] Analysis of existing industry participants, whatever their level of success or competitive vulnerability, provides insight into the nature of demand, supply responses, and pricing conditions, and thus informs rate determination. This analysis confirms the dynamic nature of the marketplace and shows that from an economic perspective the forward looking statutory objectives requires rates that allow for the continued evolution of the marketplace, including new entry, new methods of distributing musical works so as to maximize the distribution of musical works to the benefit of copyright owners, users, and the ultimate consumer. Analysis of existing participants with their widely varied business models also shows the hazard of using

[5] This evolution includes expansion of providers as well as products and services offered on permanent download and subscription services, as well as announcements of new and innovative distribution platforms through in-home and mobile devices. See, for example, "Philips Teams with Rhapsody to Launch New Lines of Portable and In-Home Audio Products," RealNetworks, Inc. Press Release, January 6, 2008; "MTV Networks, RealNetworks and Verizon Wireless Join Forces to Offer a New Integrated Digital Music Experience," RealNetworks Inc. Press Release, August 21, 2007; "Rhapsody and Tivo Deliver Millions of Songs Direct to the Living Room," RealNetworks Press Release, October 9, 2007. These have the potential to increase the availability of legally obtained and royalty bearing works, but require substantial investments by participants to the ventures to provide technology as well as marketing. Card, David, "Latest US Digital Music Forecast." JupiterResearch November 19,2007. Online available http://weblogs.JupiterResearch.com/analysts/card/archives/2007/11/latest_us_digit.html. - and - JupiterResearch, "JupiterResearch Forecasts Digital Transition Underway, but Digital Sales Not Enough to Save Music Industry." November 19, 2007. Online available http://www.jupiterresearch.com/bin/item.pl/press:press_release/2007/id=07.11.19-music-forecast.html/. See also, a perspective from the record label business in IFPI Digital Music Report, January 2007 and IFPI Digital Music Report, January 2008 for recent information on the digital music industry.

the ability to pay of one or a few existing participants as a benchmark in determining rates or the rate structure. For example, the industry includes still incipient business models that are growing and expanding (e.g., subscription services selling limited downloads) and some market participants that have achieved more market traction with consumers (e.g., a la carte permanent download sales). Just as it would be economically inappropriate to determine the level of mechanical royalties on the basis of the most successful songwriter or publisher, it is similarly inappropriate to do so by focusing entirely on a single provider of digital music. Doing so introduces an unwarranted economic bias in a nascent marketplace towards perhaps just one or a few existing participants and against potential entrants or new business models.

9. Moreover, one cannot infer from the ability of subscription services to pay under existing flat fee or rateless arrangements[6] that a switch to a higher percentage of subscription services revenues would meet the statutory objectives.

10. The fact that there are circumstances in which music users will attempt to raise price, and even periodically succeed in raising price, does not mean that an inefficient and economically unsound royalty rate methodology should be imposed.[7] Examples of recent price changes cannot be taken at face value without consideration of the extent to which these price increases were based on increases in the quality or quantity of services and product available to consumers and whether these prices can be sustained in the long term. Recent price changes demonstrate continued pressure on pricing when considered in the context of on-going quality improvements. With regard to subscription services, for example, RealNetworks held constant the price of its Rhapsody To Go service at $14.99 although there were a number of improvements in quality of service and product offerings while changing the price of its other service to $12.99 from $9.99. That price change was accompanied by quality improvements and other changes as well. As another example, iTunes introduced the

[6] These arrangements are based on negotiated flat fees or set amounts and are not indicative of ability to pay the equivalent of the 9.1 cents.

[7] In competitive markets, taxes (or similarly royalties), if imposed on the entire industry, may well be passed on to consumers, with some diminution in quantity demanded relative to pre-tax level.

DRM-free download for $1.29 but has effectively abandoned this pricing strategy in favor of the 99 cent download for all single downloads.[8]

B. CPI indexing of inputs is unreasonable without consideration of the final demand product price

11. Indexing is a fairly common component of input factor contracts. Rather than re-negotiating input prices on a frequent basis, buyers and sellers will negotiate a contract price and include escalation clauses to adjust input prices for changes in the rate of inflation. However, such contracts typically terminate after a few years to allow the parties to re-negotiate the terms and prices in the contract based on current market conditions.

12. The Copyright Owner's proposal for a mechanical royalty indexed to a CPI-measure, however, is not grounded in marketplace realities and is merely an extension of a flawed precedent.[9] Achieving the statutory objectives from an economic perspective does not require a constant royalty rate in real terms. In my opinion, the question before the Court is then whether copyright owners should be ensured a constant royalty rate in real terms irrespective of whether copyright users are able to adjust the price of the final demand product by the same rate of inflation.[10]

---

[8] "Digital Music Trends: DRM Declines, iPod Rises in 2007," PCWorld, December 26, 2007 ("Unlike the iTunes Store, songs sold at Amazon's store were completely unprotected and offered at high bit-rates, sold as 256kbps MP3 files. Additionally, these tracks were offered at prices lower than the Apple equivalent--89 or 99 cents for unprotected tracks versus Apple's $1.29 price for iTunes Plus tracks. Popular albums were sold for $8.99 rather than iTunes' $9.99 and higher price. Amazon MP3 also offered unprotected tracks from labels that still imposed copy protection at the iTunes Store, specifically Universal Music. Independent artists' music was also offered in unprotected form at Amazon MP3. Not long after the successful launch of Amazon MP3, Apple reduced the price of its iTunes Plus tracks from $1.29 per track to 99 cents each. Apple also removed the copy protection from much of the music found on independent labels.")

[9] Even Professor Landes concedes that his "41 cents" example shows the absurdity of input indexing without consideration to the final demand output price. As Professor Landes states, if the objective is not to keep the mechanical license in real terms constant over a 100-year period, the example is absurd. In my view, the example is not absurd, rather the results show the absurdity of adopting an inflationary index on a factor input without regards to the final demand product. See Landes Testimony at Volume 9 PM, 2538:17-2542:14.

[10] I note that at the time of the decision to index the mechanical royalty rate, the perception was that copyright users had the ability to raise price. See 46 FR 10466 at page 50. ("We find that the

13. The economic issue with the proposal for a penny rate royalty which is indexed to the CPI is that it shifts all the risk of inflation to the copyright user. If the copyright user is able to raise price to cover inflation, then the copyright user will remain whole; however, if market conditions prevent the copyright user from raising downstream prices to keep up with the increase in input costs due to the indexed mechanical royalty rate, then the copyright user will be harmed. In my opinion, the statutory objectives require an equitable distribution of risks in light of actual industry conditions and the parties' relative contributions. I believe that placing the entire risk of inflation on copyright users is inconsistent with the statute.

14. The evidence in the record thus far indicates that copyright users, such as DiMA's members, are not able to raise prices commensurate with the indexed mechanical royalty rate. Even Professor Landes recognizes that there is downward pressure on prices due to piracy and other factors.[11] Economic logic indicates that if copyright users could raise prices, they would. This is not the case. For example, Apple determined on the basis of various factors that it would price downloads at 99 cents when it entered the marketplace with iTunes in 2003. With the encouragement of its record label partners, iTunes attempted to offer a higher price for DRM-free single downloads, but it was unable to make that higher price point stick. In addition, recent entry into digital music distribution (e.g., Amazon.com pricing at 89 cents/song) indicates that pricing pressure remains strong and that prices will likely decline or remain stable rather than increase.[12] Furthermore, prices have remained constant for some subscription services even with quality improvements suggesting continued pressure on pricing. The table below shows the price for new services that have entered the marketplace in the last several years. As the table shows, prices for new services have been at or lower than pricing levels already in the market at the time of entry.

---

record companies, the copyright users, are able to increase the price of their products to insure theirselves [sic] a fair income.")

[11] See Landes Testimony at Volume 9 PM, 2464:13-22 and 2465:2-18.

[12] See "Digital Music Trends: DRM Declines, iPod Rises in 2007," PCWorld, December 26, 2007.

Table 1

Digital Music Providers: Permanent Downloads and Subscription Services
Notes: Prices, Services Offered, DRM Status, and Volumes listed are those current as of March 2008.

Company	Service	Average Price	Track Volume	DRM	Comments
Permanent Download Services					
Yahoo Music	Singles (Jukebox Service)	$0.99	2 million +		Yahoo Music launched their music store May, 2001. On February 4, 2008, Yahoo announced that it will be suspending it's Music Unlimited Service to partner with Rhapsody.
iTunes	Singles	$0.99	6 million	Yes	The iTunes Music Store launched in April, 2003. In 2007 iTunes began to offer DRM-free singles at an average price of $1.29, recently the price has been reduced to $0.99.
	Singles	$0.99	2 million	No	
	Albums	from $9.99		Yes	
Real Player Music Store	Singles	$0.99	400,000+	Yes	
	Singles (selected by Rolling Stone)	$0.49	10	Yes	
	Albums	$9.99		Yes	The Real Player music store was launched in January, 2004.
Walmart	Singles	$0.94	2 million	No	
	Albums	from $7.88		No	Walmart launched their digital music store in May, 2004
MusicGiant	HD Singles	$1.29		Yes	
	HD Singles	$1.29		No	The MusicGiant HD music store was launched in 2005. Recently
	HD Albums	$15.29		Yes	MusicGiant began to sell DRM free music in 2007.
Best Buy	Singles	$0.99	"millions"	No	Best Buy launched their digital music store in October, 2006
Amazon	Singles	$0.89	2 million	No	
	Albums	from $4.99		No	Amazon launched their digital music store in 2007.
Zune Market Place	Singles	$0.99*	2 million+	Yes	
	Singles	1.24*	1 million+	No	The Zune Market Place was launched in September ,2006. Zune began to offer DRM free music in 2007. Points which are needed to purchase music from the Market Place are equivalent to $0.008 each.
	Albums	$10.00*		No	
Subscription Services					
eMusic	Subscription (30 downloads/month)	$9.99/month	2.8 million +	No	
	Subscription (50 downloads/month)	$14.99/month	2.8 million +	No	
	Subscription (75 downloads/month)	$19.99/month	2.8 million +	No	eMusic launched their music store in 2000
Yahoo Music	Annual Subscription	$5.99/month	2 million +		Yahoo Music launched their music store May, 2001. On February 4, 2008, Yahoo announced that it will be suspending it's Music Unlimited Service to partner with Rhapsody.
	Monthly Subscription	$8.99/month	2 million +		
Rhapsody	"Unlimited" Monthly Subscription	$12.99/month	4 million +		Rhapsody launched their music store in December, 2001. The "To-Go" Subscription allows the user to transfer music to a portable device.
	"To-Go" Monthly Subscription	$14.99/month	4 million +		
Napster	Subscription	$12.99/month	5 million +	No	Napster launched their music store October, 2003
Zune Market Place	Unlimited Monthly Subscription	$14.99/month	2 million+	Yes	

*The typical single costs 79 points which is equivalent to approximately $0.99, the typical DRM free single costs 99 points which is approximately equivalent to $1.24, the typical album costs 800 points which is equivalent to $10.00

15. The risks and inequities associated with indexing one side of the market (inputs) without consideration for the other side of the market (final demand product) can be seen in Table below.

Table 2

Change in Mechanical Royalty Adjustments Due to Indexing Compared with Change in CD and Digital Single Download Prices

	Mechanical royalty	% Change	CD	% Change	Digital	% Change
1986	$ 0.050					
1987	$ 0.050	0.0%				
1988	$ 0.053	5.0%				
1989	$ 0.053	0.0%				
1990	$ 0.057	8.6%	$ 12.05			
1991	$ 0.057	0.0%	$ 13.01	8.0%		
1992	$ 0.063	9.6%	$ 13.07	0.5%		
1993	$ 0.063	0.0%	$ 13.14	0.5%		
1994	$ 0.066	5.6%	$ 12.78	-2.7%		
1995	$ 0.066	0.0%	$ 12.97	1.5%		
1996	$ 0.070	5.3%	$ 12.75	-1.7%		
1997	$ 0.070	0.0%	$ 13.17	3.3%		
1998	$ 0.071	2.2%	$ 13.48	2.4%		
1999	$ 0.071	0.0%	$ 13.65	1.3%		
2000	$ 0.076	6.3%	$ 14.02	2.7%		
2001	$ 0.076	0.0%	$ 14.64	4.4%		
2002	$ 0.080	6.0%	$ 14.99	2.4%		
2003	$ 0.080	0.0%	$ 15.06	0.5%		
2004	$ 0.085	6.3%	$ 14.93	-0.9%	$ 0.99	
2005	$ 0.085	0.0%	$ 14.91	-0.1%	$ 0.99	0.0%
2006	$ 0.091	7.1%	$ 14.90	-0.1%	$ 0.99	0.0%
1990-2005	49.1%		23.7%			

Source: RIAA, 2006 Year-End Shipment Statistics.

Since 1990, for example, the mechanical royalty rate has increased by 49% due only to the automatic inflation adjustment whereas CD prices have only increased by 23.7% during this same time period. The table also shows that the price of single digital downloads has not changed in the years during which prices have been tracked.[13]

16. A rate structure that continues the automatic inflation adjustments for copyright owners will likely continue to expand the gap between the proportion of the final downstream product that conveys to the copyright owner compared with the copyright user since there is no indication that copyright users will be able to offset

[13] The RIAA 2006 Year-End Shipment Statistics can be found at http://76.74.24.142/6BC7251F-5E09-5359-8EBD-948C37FB6AE8.pdf.

such increases with price increases to the consumer given current and likely future market conditions. This represents a transfer of wealth from the copyright user to the copyright owner simply due to inflation adjustments. In my view, this represents an inequity inconsistent with the objectives of the statute.

17. A percent of revenue royalty structure eliminates the need for inflation adjustment since the copyright owner and user would share equally in the upside and downside adjustments in the final downstream product pricing. Inflation would have the unintended consequences of benefiting or harming one party versus the other.

C. Professor Landes Mis-states the Effect of Unbundling

18. Professor Landes asserts that the availability and sale of single tracks has harmed copyright owners and resulted in a decline in compensation that can only be restored in the form of higher royalty rates on downloads of singles. He claims that the average value of music in the marketplace has increased. Contrary to Professor Landes' assertion,[14] the average value of music has not increased where pirated musical works are included in the assessment and are "valued" at a zero market price, i.e., pirated music is consumed as a substitute for "sold" music but at a zero price. If these "zero-priced" musical works are considered with purchased music, the average value of music has actually declined substantially. This affects not only copyright owners but also digital music distributors as each pirated copy represents potential lost revenues to both parties.

19. Professor Landes appears to assume that (1) the past allocation of music via bundled CDs or vinyl albums was the most efficient or optimal one in providing adequate compensation to copyright creators and owners and that (2) overall compensation derived from bundled musical works should serve as the standard for efficiency and compensation in a digital environment. In making these assumptions, he fails to consider that CD and album bundling, and the associated distribution technology, were limited in their ability to match supply with demand for musical works. Inclusion of works in the same CD or album bundle could lead to under-

[14] See Landes Testimony at Volume 9 PM, 2542:15-2549:6.

compensation of certain copyright creators and owners with musical works desired by consumers and over-compensation of certain copyright creators and owners with musical works not desired by consumers. This could result in overproduction of some musical works and underproduction of other works relative to circumstances where the correct pricing signals make their way into the marketplace. With the advent of an efficient technology for distribution of unbundled musical works, the marketplace is better able to equate price with the value the consumer places on a particular musical work. The ability to unbundle musical works, provides a mechanism by which both individual copyright creators and the owners of aggregated musical works are provided with pricing signals that permit more efficient "production" decisions.[15]

20. Thus, Professor Landes' justification for higher royalty rates is not supported by the superiority of unbundled versus bundled musical works in terms of economic efficiency and appropriate market signaling.

D. Professor Landes' Benchmarks are Inappropriate

21. Finally, there are issues with the "benchmark" analysis offered by Professor Landes to support the Copyright Owners' proposed rates. Professor Landes argues that "the fundamental purpose of the benchmarks, right, is not the absolute values, but it's the relative values."[16] This use of benchmarks is directed towards deriving a percent of the royalty pool, i.e., relative value, for mechanical rights. From synchronization agreements, he determines that publishers and record companies split the total content pool 50-50.[17] Using a legislatively derived split of the content pool for digital audio tapes, he finds royalties are split one-third to musical works and two-thirds to sound recordings.[18] Examining ringtone agreements, Professor Landes finds song creators'

[15] I note that aggregators (e.g., publishers, record companies) may benefit from bundling, but the maximization of musical works contemplated by the statute is the creation and availability of individual works to the consumer, not of "bundled" works.

[16] See Landes Testimony at Volume 9 PM, 2597:7-9.

[17] Landes Amended Report at ¶ 49.

[18] Landes Amended Report at ¶ 50.

share of total royalties for the song and sound recording is around 20 percent.[19] He then uses these benchmarks to conclude that the Copyright Owners' rate proposals for permanent and limited downloads (and so-called "interactive streaming") is reasonable because they fall within the overall content pool benchmark range of 20-50% being allocated to mechanical royalties compared with sound recording royalties for these other uses (ringtones, synch rights, and the AHRA).[20]

22. In my view, Professor Landes is correct that determining appropriate relative value is a goal of the statutory objectives, but he relies on the *wrong relative value* for selecting benchmarks. Specifically, he uses as his benchmark the relative value of royalties accruing to the Copyright Owners of musical works compared with the copyright owners of sound recordings (the so-called "content pool"). But the Section 801(b)(1) statutory objectives do not address the relative value of rights compared with each other. Instead, the statutory objectives focus on the relative compensation due to mechanical rights copyright owners and users given their relative contributions to the actual final product made available to the public. For this reason, it is my opinion that Professor Landes' use of a content pool approach is mis-directed and inconsistent with the statutory objectives, and therefore, these benchmarks are economically inappropriate for determining mechanical royalties for reproduction of DPDs.

23. There are additional issues associated with the different benchmarks proposed by Professor Landes as relevant for the Court's decision regarding the rate structure and the appropriate level of rate compensation.

24. First, Professor Landes acknowledged during his cross-examination that ringtones comprise a different market than permanent and conditional downloads and that using a penny comparison rather than a percentage (which was used throughout the rest of his testimony) is essentially a flawed comparison.[21] Ringtone agreements are an

[19] Landes Amended Report at ¶ 51.

[20] Landes Amended Report at ¶ 53.

[21] See Landes Testimony at Volume 9 PM, 2481:18-2482:7.

inappropriate benchmark in setting mechanical royalties for permanent and conditional downloads. Ringtones are highly differentiated from permanent and conditional downloads with different supply and demand conditions. Consumers would not consider ringtones to be substitutes for downloads, or vice versa.[22] Furthermore, I believe it is important to place into context that most ringtone agreements that were considered by Professor Landes were negotiated at the very early stages of this "market" opening. Gaining market access to this new product would likely have influenced greatly the negotiation of rates. In addition, ringtones were not subject to the same piracy threats when agreements were initially negotiated. As the marketplace and competition for ringtones have developed, ringtone prices have tended to decline.[23] Professor Landes has not adjusted his benchmark for these fundamental differences, making his reliance on ringtone royalty rates inappropriate.

25. Similarly, there are issues with Professor Landes' reliance on digital audio tape. As Professor Landes conceded in testimony, the Audio Home Recording Act reflects

---

[22] See Landes Testimony at Volume 9 PM, 2481:18-2482:7("Q. Well, it's true, isn't it, that the snippet sells in the marketplace for two or three times as much as a download, right? A. Yes. It's a different market, really, the ring tone market. Q. So by going to these cents comparisons, as opposed to all the percentages you've been comparing throughout your testimony, you basically are comparing apples to oranges, right? A. I don't think this comparison is my strongest comparison. Okay?"); Testimony of Ralph Peer 1684:16-1685:3 **(**"Q. Is it fair to say that the rates that were set for ring tones in these agreements are for a product that's quite different than CD sales or for downloads? A. I'm sorry. Are ring tones different from CD sales? Well, they're different in what it is you get for them and they're different in their marketing channels. Q. So "yes" is the answer to that? A. Yes, there's differences."); Testimony of Richard Boulton 2953:4-2954:7 ("…certainly in the United Kingdom [ringtones] are a very sort of different product in a different market. Q. In what way are they different? A. Ring tones are essentially about personalizing a mobile phone. They use up to 30 seconds of music. The price point for them is very different. In the United Kingdom at the time of this proceeding the retail price for a ring tone was about four times the retail price of a download. The background to the way those rates had been set was different against a context of monophonic and polyphonic tones, and the rates were announced to be subject to challenge. The mobile operators had said that the rates were not acceptable to them. That was their main download business at the time. And the BPI had announced an intention to challenge the rates as well. So in the context of recently established rates that were announced to be under challenge, it seemed to me that in the U.K. at least they weren't reliable indicators of what the rates should be for permanent downloads.")

[23]Ringtones are offered in the marketplace at various price points. See, for example, http://moringtone.mobi/ringtonecomparison.html. Other sources of information on ringtone pricing are contained in Attachment B.

Congressional policy to allocate royalties in a particular manner.[24] It is not an allocation that is market-based or that reflects the statutory objectives that must be achieved in this proceeding. In my view, the marketplace for digital audio recording rights is not comparable to permanent and conditional digital downloads at issue in this proceeding, and therefore, does not provide an appropriate benchmark in setting royalty rates for mechanical rights.

26. Another "benchmark" is the current 9.1 cents, which was derived through agreements essentially ratifying the 1981 decision of the Copyright Royalty Tribunal, adjusted for inflation over time.[25] As a benchmark, it suffers for two principal reasons. First, there have been sweeping changes in market conditions since the time of its adoption, which the Copyright Owners themselves acknowledge. Second, it is based on a rate setting determination in which there was an explicit assumption that increases in the mechanical royalty rate could be passed on to consumers by copyright users.[26] Reliance on 9.1 cents as a benchmark is inappropriate without explicit recognition of the effects of these market changes on the supply and demand of musical works.

27. With respect to the rate structure proposed, Professor Landes does not acknowledge that subscription services have been operating under agreements without express penny rates, or with rates other than flat payments, or subject to retroactive adjustment, precisely because the parties were not able to reach agreement on such rates, choosing instead to defer to this proceeding. These agreements, therefore, are not inconsistent with a percentage of revenue rate structure.

[24] See Landes Testimony at Volume 9 PM, 2554:18-2556:13.

[25] The Court should not totally discount the relevance of reasoning in the 1981 decision in this proceeding while giving weight to the current rate and rate structure as a benchmark for compensating copyright owners because the current rate of 9.1 cents and penny rate structure are derived from that 1981 decision.

[26] 46 FR 10466 at p. 50.

III. Setting Rates Above The High End Of The Proposed DiMA Range and Setting a Minima Should Be Undertaken Only With Substantial Caution

28. In evaluating the information and analyses presented by Professor Landes in support of higher rates for mechanical royalties, I reviewed the underlying logic and information as well as the documentary evidence. I have also taken into consideration the proposed upward revision in the rates that have recently been proposed by DiMA members above their initial proposal. The new proposal also includes clarifications on the revenue base that more closely track the revenue definition used in the SDARS decision.[27] This revised proposal maintains what in my view are important distinctions in setting rates that reflect inherent differences in the consumption of permanent versus conditional downloads, and primarily download services versus subscription services.

29. It is less clear that DiMA's amended rates reflect the appropriate industry-wide rate covering not just incumbents but also firms that would enter de novo or would consider introducing new business models. As a result, these newly-proposed rates are at the highest end of the range that I would independently justify as consistent with the statutory objectives.

[27] I have also examined issues raised by the Court with regard to the practicality of implementing a percentage of revenue methodology. I have interviewed DiMA members with regard to their experience in operating under systems that require allocation of revenues from various services and application of percentage rates. For example, I have reviewed the forms filed with BMI, which involve designation of revenues from subscription services into categories of revenues for which royalties will be assessed. In this regard, the BMI arrangements require subscription services to report separately the revenues for categories relevant to BMI (e.g., non-interactive and interactive streaming public performance rights), and hence provide a means to assess revenues associated with downloads (for which there is a zero public performance royalty). The same data and format provides a "mirror" image of the calculations and allocations that can be done on which to assess a royalty for downloads. Similarly, review of the UK agreement shows that the definitions are designed to specify the scope of revenues that form the rate base. Experience with other public performance reporting arrangements shows that revenues can be assigned to relevant categories and assessed differential rates as required. These agreements and reporting formats show that companies are able practically to identify categories, compile reports, and apply the relevant and different percentages on a standardized form. See, for example, BMI, "Digital Music Subscription Service Music Performance Agreement Quarterly Report Form, Sample as used by RealNetworks." 2007; EMI, "US Subscription Service Revenue & Usage Report Form, Sample as used by MediaNet." January 2008.

30. In considering these amended rates and terms proposed by DiMA, therefore, the Court should consider that they reflect the perspectives of a number of incumbents (similar to the UK agreement negotiated among existing digital music providers), and should weigh carefully whether these rates reflect the appropriate balancing of interests across existing *and* possible future copyright users. DiMA's amended rates would provide sufficient compensation for Copyright Owners were they to be adopted as the actual binding rates. The appropriateness of compensation should be evaluated, in my view, based on independent evaluation of these specific rights for digital music in the U.S. as compared to appropriate benchmarks, and not to artificial benchmarks based on current penny rates today of the perceived value of works in 1981.

31. Further caution with regard to rate determination comes from a review of the testimony. For example, Professor Landes admits that an increase in the demand for musical works will depend on technology changes rather than an increase in songwriters producing more songs, all else equal.[28] In turn this suggests that the concentration of a given incremental pool of money used to increase distribution technology innovation has the potential to stimulate more output than the same pool of money dissipated among a large number of copyright owners in the form of royalty compensation. The distribution of musical works will depend on copyright users investing in new technologies that will increase consumer demand for musical works. To achieve this, copyright users must be provided sufficient returns to undertake these investments. The goal is to balance the costs/investments to make music legally available and sold. Lower royalty rates can be thought of as a shared "investment" by copyright owners, or as providing incentives to copyright users, to make such investments. Copyright Owners will benefit from this additional investment as the demand for musical works increases.

32. In contrast, attempting to distribute these incremental revenues back to the copyright owners in the form of higher royalty rates will not necessarily maximize the

[28]See Landes Testimony at Volume 9 PM, 2541:15-18 and 2508:16-2516:22.

availability of musical works or overall compensation to copyright owners. In particular, this is a constrained optimization problem, given that there is substantial leakage from the system in the form of pirated works that was not present in vinyl. In other words, a $1 investment by the copyright users in making secure and legal transactions possible will be more productive in maximizing sustained availability and consumption of royalty-bearing musical works going forward than that $1 being returned to the copyright owner in the form of a single royalty payment. On balance, this argues against raising royalty rates and in favor of the rates in the range proposed by DiMA. The efficiency in the re-investment in digital distribution technologies of that $1 may return far more to the industry as a whole in the long run, including the copyright owners, than $1 return to the copyright owner in the form of compensation. An example of such circumstances is where new technologies have the potential dramatically to expand the scope of individuals that can easily access royalty bearing works, but require new and risky investments subject to downstream pricing constraints. In such circumstances, royalty rates that are set too high could deter output expansion (and royalty expansion) activity.[29]

33. As I discussed in my initial testimony, it is my view that a minimum fee is likely inconsistent with the statutory objectives and unnecessary under a properly constructed percent of revenue rate structure. Minima in a nascent industry may act as a barrier to entry and expansion, both of which should be encouraged rather than constrained. Moreover, where a minimum fee is determined on an industry-wide basis across a number of firms in a dynamic setting, there is the substantial risk that it may fail to differentiate sufficiently between start-up (and potentially successful expansion firm situations) and expansion or product extension by more experienced firms, and thus could inadvertently impose high costs on newer firms. Moreover, some of the product extensions considered by more experienced firms may be subject to different

[29] It is my understanding that there are a number of new technologies involving mobile devices and in-home devices that are under consideration as ventures that could provide dramatically expanded scope of digital music use, but that have the characteristics of investment requirements, competitive market circumstances, and pressures on pricing. See, e.g., Nokia World 2007: Nokia outlines its vision of Internet evolution and commitment to environmental sustainability, Nokia Press Release, December 04, 2007 at http://www.nokia.com/A4136001?newsid=1172937

pricing pressures than their existing models. That is why from an economic perspective a minimum fee may be more appropriate in a proceeding to set rates for a closed set of industry participants and less appropriate where all the participants are not known or perhaps not yet in the business.

34. Nonetheless, it is my understanding that there is a recognized concern on the part of the parties to this proceeding that sufficient uncertainty exists as to the nature of likely future business models in this nascent industry that warrants consideration of minima.[30] As I understand the concern, the possibility exists that there may be business models (or product variations) in which it may be sufficiently difficult to attribute positive revenues such that a percent of revenue rate structure, unless completely specified, would not adequately compensate copyright owners. Where these prospects constitute a sufficiently large volume of business and are not otherwise captured by a revenue methodology or where prescribing a revenue methodology is very costly for specific transactions and would impede expansion, the concern is that there is some risk that copyright owners will not be compensated for their intellectual property.[31]

35. As I noted in my testimony, parties to mechanical royalty agreements often settle upon a minimum fee. In my view, it is relevant that if the Court were to make use of these agreements in its consideration of minima, it should take into consideration that parties to such agreements by definition have successfully entered the marketplace and are generating positive revenue sufficient to cover these likely minima. I also understand that in setting the minima in the UK settlements, the parties considered the

[30] It is my understanding that the copyright owners do not object to a percent of revenue rate structure for downloads if it includes a penny rate minima. See Testimony of Roger Faxon at 762:20-766:7. See also Testimony of David Israelite at 1519:10-19. ("…we were doing this [tiered rate structure that incorporates a % of revenue and minima], in part, as an attempt to be flexible, because we've been told this is -- this is what they want is the flexibility of this type of pricing. And we've always been open to it in these types of models as long as we've had the protection of a floor in case something we can't predict happens or they figure out ways to – to take revenue outside of any definition that's given to us.")

[31] I would note that the mere possibility of such prospects does not itself provide a compelling foundation for a unit or "penny" rate, which assumes that the value per work is fixed across all works and can precisely and accurately be estimated.

adopted minima to be set at a level that would not likely be invoked given anticipated marketplace conditions. They are truly "minimums" that represent what the parties understand to be a floor – a minimum alternative – that is intended to provide payment to copyright owners in the case of significant and unforeseen negative market conditions. For these reasons, I would recommend the Court critically examine proposals for minima with consideration that the burden of such minima may tend to fall disproportionately on new entrants. In my opinion, any minima set by the Court should be set at a level that would not deter entry or innovative business models that would encourage access and maximization of music distribution, which ultimately benefits copyright owners in the long run. This would be most consistent with the statutory objectives.

IV. The Appropriate *Mechanical* Royalty Rate for Interactive Streaming Should be Set at or Near Zero.

36. I was also asked to respond to analyses and proposals advanced by the copyright owners with regard to the appropriate rate structure and rate for mechanical royalties in this proceeding for interactive streaming.[32] In undertaking this response, I reviewed the materials and testimony, available agreements with regard to streaming (for either interactive or non-interactive), interviewed knowledgeable industry participants, and publicly available materials on the issue.[33] For purposes of this report, I use the term "streaming" to refer to the process of sending a continuous flow of digital data packets from a source to the user —whether it be music, video, or some other form of content—that creates no "accessible" permanent storage of the content with the user. This process occurs in several stages:

- A raw media file is encoded (typically compressed) and stored on a content server.
- The server sends a regulated stream of data packets to the user's media player.

[32] See Landes Amended Report at Section V (¶¶82-88).

[33] Materials reviewed and considered are listed in Attachment B to this Report.

- The media player receives the stream of data packets, decodes it, and plays the media file. This step often requires that portions of the file temporary reside in the user's memory for a period sufficient to re-assemble and send the file in a form which the user can visually and audibly comprehend.

- Once "sent" to the user, the data packets are rendered inaccessible and imperceptible to the user. A complete copy of the file (such as a video or musical work) may or may not be placed on the user's hard drive, depending on the technology employed, but only to facilitate the rendering of the stream.[34]

37. As with all Internet transmissions, regardless of whether the data is streamed or not, temporary copies are created. These copies may temporarily reside at the source (server), along the network transmission route, and at the final user's site. Depending on the technology or type of streaming, there may be one or more storage cache copies on one or more servers created as well as some data packets stored in buffers that briefly reside on the user's hard drive. The amount of copying involved in streaming may vary as a technical matter to support the quality of the streaming but without regard to whether the streaming is "interactive" or not. Streaming that is accomplished without any copies at the user end conveys no additional value to the consumption of musical works that is not already captured within the royalty streams and therefore, should not be subject to any mechanical royalty.

38. As I understand the technology, the reproduction of a musical work on the user end of this process does not differ depending on whether the user is receiving interactive or non-interactive streaming. I further understand that any reproduction involved at the user end exists only to enable the public performance of the content.

[34] See Testimony of Timojhen Mark of AOL and Testimony of Alexander Kirk of Rhapsody America.

39. I understand that the copyright owners are not presently seeking a mechanical royalty rate for copies that support non-interactive streaming.[35] I interpret this to mean that they view the appropriate value of copies made in the process of non-interactive streaming is zero. Copyright Owners, however, are seeking a mechanical rights royalty payment for interactive streaming.[36] I have focused my inquiry in responding to this proposal on differences in demand and supply characteristics of interactive and non-interactive streaming, whether any such differences imply a difference in *mechanical* royalties as opposed to other royalties (e.g., public performance rights), and whether reflecting any such differences in mechanical royalties as opposed to other royalties leads to economic inefficiency or distortion in marketplace incentives.

40. Based on my understanding of the technology and process involved, it appears that the distinction made by the Copyright Owners rests with the interactive versus non-interactive nature of the user's request for streaming (the real-time performance demanded by the user), not the nature of the reproduction or copies that may be created in order to facilitate the streaming. In other words, the "noted" difference between interactive and non-interactive streaming derives from the value that interactive streaming creates for the user with respect to the ability to choose the specific content that will be streamed. The possible value difference does not appear to emanate from differences in the reproduction or distribution to the user of any copies. As an economic matter, the value distinction between interactive and non-interactive streaming therefore arises from the nature of the public performance of the content or musical works requested by the user—i.e., the user experience of control

---

[35] See, e.g., DMCA Sec 104 Report, December 12-13, 2001, Statement Of Carey Ramos, Esq., Paul, Weiss, Rifkind, Wharton & Garrison, On Behalf Of The National Music Publishers Association at pp. 17-18 ("For radio-style webcasting—and I want to emphasize this—we have expressly agreed not to seek mechanical licenses. The reason we believe on-demand streaming requires a mechanical license is that it involves the making of copies and it displaces record sales. Common sense says that if consumers are able to hear a song on demand—that is, whenever they want—they are less likely to go out and buy that record. This displacement will have a direct and substantial effect on songwriters' and music publishers' income."). See also, Joint Statement of the Recording Industry Association of America, Inc., National Music Publishers' Association, Inc. and The Harry Fox Agency, Inc. In the Matter of Mechanical and Digital Phonorecord Delivery Compulsory License dated December 6, 2001, (Exhibit CO 0003).

[36] See Testimony of David Israelite at 1411:13-17.

over the content streamed. Agreements, including those between digital music providers and BMI, show that there is a distinction in the rate for public performance rights associated with interactive as opposed to non-interactive streaming, with the former set somewhat higher than the latter.[37]

41. Based on the record, I do not find support for the proposition that any value distinction between non-interactive and interactive streaming should be reflected in a difference in rates for mechanical royalties, or that such differences cannot be captured in the public performance licenses. Moreover, where the economic value associated with streaming is created by the ability to choose the content streamed, and results in increased observed valuation for the public performance rights, then the appropriate forum in which to reflect such differences is in the performance rights not the mechanical rights. This is consistent with the copyright owners accepting an effective "zero rate" for non-interactive streaming and also in public performance licenses that assign a higher royalty rate for interactive streaming compared with non-interactive streaming.[38]

42. These factors indicate that any statutory rate for interactive streaming should be at or near zero. If the Court does set a rate, that rate should be as close to zero as possible.[39]

---

[37] See, e.g., BMI agreements; see also ABC Kids Music, Agarita Music, Buena Vista Music Co., Falferious Music, Five Hundred South Songs, Half Heart Music, Hollywood Pictures Music, Holpic Music Inc,, MRX Music Corp., Mirimax Film Music, Inc., MMX Music Corp., Nashville Songs, NEZ Music, Inc., Seven Peaks Music, Seven Summits Music, Touchstone Pictures Music & Songs, Inc., Walt Disney Music Company and Wonderland Music Company, Inc. Limited Download Mechanical License Agreement with RealNetworks, Inc. effective November 1, 2006.

[38] There is an additional consideration where public performance payments made by digital services (or demanded by copyright owners) does already encompass the "value" created by interactive as opposed to non-interactive streaming. A reasonable royalty for the *mechanical* rights associated with interactive streaming where copies may be made at the user end should ensure that the copyright owner is not compensated twice for the same value conveyed in streaming a musical composition. Otherwise, this raises the risk of overcompensation to copyright owners, which in my view is inconsistent with the statutory objectives of 801(b)(1).

[39] I have crossed-checked the rates by reference to other licensing agreements provided in discovery. In these agreements, the mechanical and public performance royalties are set at very low levels. In my view, if these agreements are used as a reference point by the Court in

V. The License For Making And Distributing Phonorecords Should Be Clarified to Include All Rights And Payments Necessary To Engage In The Licensed Activity.

43. Making and distributing phonorecords to end consumers digitally involves many copies that are not received by those consumers; the purpose and value of which is to deliver the work. As I understand the technology, the number of copies created to

---

evaluating the proposed statutory rate, they should be regarded as a high upper bound and should be discounted substantially. See for example: Background Music Service Agreement, Bus Radio, Inc. ("Licensee") and The Harry Fox Agency, Inc. ("HFA") effective 12/20/06; Background Music License, PlayNetwork, Inc. (formerly known Stelix Music Company) ("Licensee") and The Harry Fox Agency, Inc. ("Agent") effective 10/01/00; TouchTunes Music Corporation, Careers-BMG Music Publishing, Inc. and BMG Songs, Inc. ("Publisher") and TouchTunes Music Corporation ("Licensee") effective 08/19/04; TouchTunes Music Corporation, Careers-BMG Music Publishing, Inc., BMG Songs, Inc. ("Publisher") and TouchTunes Digital Jukebox ("Licensee") effective 01/02/01; TouchTunes Music Corporation, MCA Music Publishing and Polygram Music Publishing ("Licensor", Publisher" or "Universal") and TouchTunes Digital Jukebox ("Licensee" or "TT") effective 01/02/01; TouchTunes, UMG and TouchTunes Offer Letter effective 10/13/04; Digital Jukebox Musical Composition License, TouchTunes Digital Jukebox, Inc. ("Licensee") and Careers-BMG Music Publishing, Inc. and BMG Songs, Inc. effective 07/15/98; Digital Jukebox Musical Composition License, TouchTunes Digital Jukebox, Inc. ("Licensee") and MCA Music Publishing ("Publisher") effective 07/01/98; Digital Jukebox Musical Composition License, TouchTunes Digital Jukebox, Inc. ("Licensee") and PolyGram International Publishing, Inc. (ASCAP), Songs of PolyGram International , Inc. (BMI) and PolyGram International Tunes, Inc. (SESAC) ("Publisher") effective 07/01/98; Universal Music Publishing, TouchTunes Digital Jukebox, Inc. ("Licensee") and PolyGram International Publishing, Inc. (ASCAP), Songs of PolyGram International , Inc. (BMI) and PolyGram International Tunes, Inc. (SESAC) ("Publisher") effective 01/01/00; Universal Music Publishing, Digital Jukebox Musical Composition License and TouchTunes Digital Jukebox, Inc. effective 01/01/00; Digital Jukebox Musical Composition License, AMI Entertainment, Inc. ("Licensee") and BMG Songs, Inc., Careers-BMG Music Publishing, Inc. and Multisongs, Inc. ("Publisher") effective 05/01/04; Digital Jukebox Musical Composition License, Ecast Inc. ("Licensee") and Zomba Songs Inc., Zomba Melodies Inc. & Zomba Enterprises Inc. ("Publisher") effective 05/01/04; Digital Jukebox License, Zomba Songs Inc and Zomba Entertainment Inc. ("Licensor") and Barden Entertainment, Inc. ("Licensee") effective 09/01/03; Digital Jukebox License, BMG Songs, Inc and Careers-BMG Music Publishing, Inc.,("Licensor") and Barden Entertainment, Inc. ("Licensee") effective 09/01/03; Digital Jukebox Publisher License, TouchTunes Music Corporation ("Licensee") and Zomba Songs Inc., Zomba Enterprises Inc. and Zomba Melodies Inc. ("Publisher") effective 10/01/01; Digital Jukebox Service Licensing Agreement, AMI Entertainment, Inc. ("Licensee") The Harry Fox Agency, Inc., ("HFA") effective 05/20/04; TouchTune Music Corporation, Universal Music Group ("Publisher")and TouchTunes Music Corporation ("Licensee") effective 08/19/04; Digital Jukebox Musical Composition License, Ecast Inc ("License") and Universal Music Publishing Group ("Publisher") effective 02/02/04; First Amendment to the Musical Composition License, Ecast, Inc. ("Ecast") and Universal Music Publishing Group ("Publisher") effective 07/01/06; Digital Jukebox Musical Composition License, AMI Entertainment, Inc. ("Licensee") and Universal Music Publishing Group ("Publisher") effective 05/25/04.

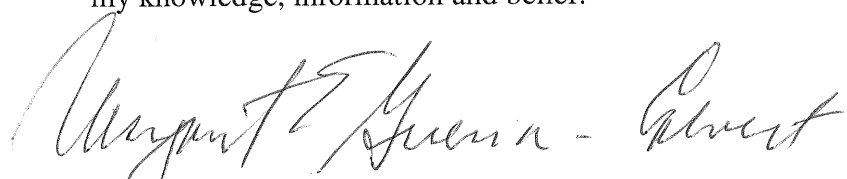
accomplish the "delivery" function is often automatically determined by computer algorithms and can change frequently depending on the scale of operations, upgrades, bandwidth speeds, geographic distribution of customers, and other factors. As a result, there is not an affirmative or active "decision" being made by the service provider or end consumer on the number of such intermediary copies to be made. These mechanics indicate the complexity that makes it virtually impossible to count, monitor, and therefore assess a royalty for copies, the number of which can be constantly changing via optimization of the overall system.

44. From an economics perspective, ambiguities with regard to the "completeness of the contract" could be addressed either by specifying that all of the relevant rights (including all copies) are covered by the license and that the rate represents the appropriate payment for the full set of rights, or by express statement that these copies used to facilitate the delivery have an associated rate of zero. The economic logic for setting a license for these copies at zero derives from the fact that these copies are necessary to engage in the activity of making and distributing phonorecords by digital transmission, for which a mechanical rate is being set under the statute. There would not be a need separate and apart from the mechanical royalty for use of the musical work, to attach additional economic value or non-zero royalty rates to these copies.

VII. Conclusion

45. Nothing in the direct testimony or other materials I have reviewed has altered my opinion that a rate methodology based on a percentage of revenue best achieves the statutory objectives to be applied in this proceeding. I previously found that the DiMA proposal would meet these statutory objectives, and conclude that the proposed modifications do as well.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief:



April 4, 2008

COMPASS LEXECON
1101 K Street, NW
Washington, DC 20005

p: (202) 263-1449 | f: (202) 589-3480
www.compasslexecon.com

MARGARET E. GUERIN-CALVERT

Email: mguerin-calvert@compasslexecon.com

EDUCATION

1976	A.B., Economics, Brown University
1979	M.P.A., (Masters in Public Affairs), Woodrow Wilson School of Public and International Affairs, Princeton University

PROFESSIONAL EXPERIENCE

2003-present	Vice Chairman and Senior Managing Director, COMPASS LEXECON (formerly Competition Policy Associates) As of January 2006, also Senior Managing Director, FTI Consulting Inc.
1994-2003	Principal, Economists Incorporated
1990-1994	Assistant Chief, Economic Regulatory Section, Economic Analysis Group, Antitrust Division, U.S. Department of Justice
1987-1990	Senior Economist, Economists Incorporated
1986-1987	Director of Analytical Resources Unit, Economic Analysis Group, Antitrust Division
1985-1986	Economist, Economic Analysis Group, Antitrust Division, U.S. Department of Justice
1982-1985	Economist, Financial Structure Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System
1979-1982	Economist, Economic Policy Office, Antitrust Division, U.S. Department of Justice
1976-1977	Research Associate, Energy Economics Group, Arthur D. Little, Inc.

TEACHING EXPERIENCE

1984	Adjunct Lecturer, Institute of Policy Sciences, Duke University
1984-1989	Executive Education for Top State Managers, conducted by The Institute of Policy Sciences, Duke University
1983	Lecturer, Board of Governors of the Federal Reserve System and American Institute of Banking
1979	Teaching Assistant, Princeton University

TESTIMONY

Investigation into the Competitive Marketing of Air Transportation, CAB

Arbitration Between First Texas Savings Association and Financial Interchange Network

In Re "Apollo" Air Passenger Computer Reservation System (CRS) MDL DKT. No. 760 M-21-49-MP

U.S. v. Ivaco, Inc.; Canron, Inc.; and Jackson Jordan, Inc.

Consent Order Proceeding before the Competition Tribunal, Canada Between The Director of Investigation and Research and Air Canada, Air Canada Services, Inc., PWA Corporation, Canadian Airlines International, and the Gemini Group Automated Distribution Systems Inc.

In the Matter of an Application by the Director of Investigation and Research under Section 79 of the Competition Act and in the Matter of certain practices by the D & B Companies of Canada Ltd. (Respondent), before the Competition Tribunal

Beville v. Curry, et al.; Comanche County District Court, Case No. CJ-95-115

U.S. v. Northshore Health System, et al.

Testimony before Committee on Banking and Financial Services, U.S. House of Representatives (April 29, 1998)

Easy Gardener, Inc. v. Dalen Products, Inc.

Trigen – Oklahoma City Energy Corporation v. Oklahoma Gas & Electric Company

State of California v. Sutter Health; Alta Bates; and Summit Medical Center

Ernest T. Smith, III et al. v. N. H. Department of Revenue Administration, et al.

St. Luke's Hospital v. California Pacific Medical Center; Sutter Health System

In Re: Cigarette Antitrust Litigation and related cases, *Holiday Wholesale Grocery Co., et al. v. Philip Morris Inc., et al*., MDL Docket No.: 1342 Civil Action No.: 1:00-cv-0447-JOF and *Artemio Del Serrone, Steven Ren, Heather Snay, Jon Ren, Keith Pine, and Bill Reed, on behalf of themselves and all others similarly situated v. Philip Morris Inc., R.J. Reynolds Tobacco Co., Brown & Williamson Tobacco Corp., Lorillard Tobacco Co., Liggett Group, Inc., and Brooke Group, Ltd.*, Case No. 00-004035 CZ, State of Michigan in the Circuit Court for the County of Wayne

In Re: Vitamin Antitrust Litigation; Misc. No. 99-197 (THF) MDL No. 1285

Economic Report in Response to European Commission's Statement of Objections Dated 22 May 2003

European Commission Hearing, Case No Comp/E-2/37.533-Choline Chloride

Report of Robert D. Willig and Margaret E. Guerin-Calvert to the NZCC *An Economic Analysis of the Consumer Benefits and Competitive Effects of the Proposed Alliance Between Qantas Airways and Air New Zealand*

Report of Robert D. Willig and Margaret E. Guerin-Calvert to the NZCC *An Economic Assessment of Professor Tim Hazledine's Model of the Proposed Alliance Between Qantas and Air New Zealand*

Presentations by Robert D. Willig and Margaret E. Guerin-Calvert to the NZCC *An Economic Analysis of the Consumer Benefits and Competitive Effects of the Proposed Alliance Between Qantas Airways and Air New Zealand; Consumer Benefits*

Erol Riza, M.D. et al., Plaintiffs v. Mercy Health System Physician Hospital Organization, et al, Defendants, Case No. CO199904796/Case NO.CI0200104455

Federal Trade Commission, et al. v. Arch Coal, Inc., et al. Case No.1:04CV00534 (JDB).

Comments of Margaret E. Guerin-Calvert, Competition Policy Associates, Inc., Washington, DC on Revision of Regulation (EEC) 2299/89 on a code of conduct for computerized reservation systems (CRS), July 8, 2004

In the Matter of an Appeal from Determinations of the Commerce Commission, Between Air New Zealand Limited and Qantas Airways Limited and Commerce Commission, High Court of New Zealand, CIV 2003 404 6590

Economic Assessment of Issues in FERC NOPR for the Alaska Natural Gas Pipeline, December 17, 2004

In Re: DRAM Antitrust Litigation, Master File No. M-02-1486PJH, MDL No. 1486, United States District Court, Northern District of California

In Re: Carbon Black Antitrust Litigation, MDL Docket No. 1543, No. 03-CV-10191-DPW (D. Mass.)

Ryan Rodriguez, et.al. v. West Publishing Corporation, et. al., Central District of California, Case No. CV 05-3222 R(MCx).

Neotonus, Inc. v. American Medical Association and American Urological Association, In the United States District Court for the Northern District of Georgia Atlanta Division Civil Case No. 1: 04-CV-2050

Budget Pest Prevention, Inc., et. al. v. Bayer Corporation, Bayer CropScience, L.P., and BASF Corporation, In the United States District Court for the Western District of North Carolina Asheville Division, Case No. 1:05-CV-90

National Recycling, Inc. v. Waste Management of Massachusetts, Inc., Browning-Ferris Industries, Inc., and SEMASS Partnership LP, United States District Court for the District of Massachusetts, Case No. 03-12174-NMG

In the Matter of Mechanical and Digital Phonorecord Delivery Rate Adjustment Proceeding, Testimony before the Copyright Royalty Board of the Library of Congress, Washington, DC, Docket No. 2006-3 CRB DPRA

In the matter of *United States v. ASCAP Application of America Online, Inc.; United States v. ASCAP, Application of RealNetworks, Inc.* and *United States v. ASCAP, Application of Yahoo! Inc.*, United States District Court Southern District of New York, Civil Action No. 41-1395 (WCC). May 4, 2007

Abbott Laboratories, an Illinois corporation, *Fournier Industrie et Sante*, a French corporation, and *Laboratoires Fournier, S.A.*, a French corporation, Plaintiffs, v. *Teva Pharmaceuticals USA, Inc.*, a Delaware corporation, Defendant; Civil Action No. 02-1512 (KAJ); *Teva Pharmaceuticals USA, Inc.*, a Delaware corporation, *Teva Pharmaceutical Industries, Ltd.*, an Israeli corporation, and *Novopharm, Ltd.*, a Canadian Corporation, Counterclaim Plaintiffs, v. *Abbott Laboratories*, an Illinois corporation, *Fournier Industrie et Sante*, a French corporation, and *Laboratoires Fournier, S.A.*, a French corporation, Counterclaim Defendants; *Abbott Laboratories*, an Illinois corporation, *Fournier Industrie et Sante*, a French corporation, and *Laboratoires Fournier, S.A.*, a French corporation, Plaintiffs, v. *Impax Laboratories, Inc.*, a Delaware corporation, Defendant; Civil Action No. 03-120-KAJ; *Impax Laboratories, Inc.*, a Delaware corporation, Counterclaim Plaintiff, v. *Abbott Laboratories*, an Illinois corporation, *Fournier Industrie et Sante*, a French corporation, and *Laboratoires Fournier, S.A.*, a French corporation, Counterclaim Defendants.; *in re TriCor direct purchaser antitrust litigation*; Civil Action No. 05-340 (KAJ); *in re TriCor indirect purchaser antitrust litigation*; Civil Action No. 05-360 (KAJ)

State of California ex rel. Lockyer et al., Plaintiffs *v. Infineon Technologies AG et al.*, Defendants. Case No. C-06-04333 PJH US District Court for the Northern District of California, San Francisco Division

Natchitoches Parish Hospital Service District, on behalf of itself and all others similarly situated, Plaintiff, v. Tyco International, Ltd., Tyco International, (U.S.), Inc., Tyco Healthcare Group, L.P., The Kendall Healthcare Products Company, Civil Action No. 05-12024 PBS.

RESEARCH, PUBLICATIONS AND PRESENTATIONS

Presentation at the American Bar Association Spring Conference, March 28-30, 2006, *Using Economic Experts*.

"Merchant Benefits and Public Policy towards Interchange: An Economic Assessment," *The Review of Network Economics*, Vol. 4 Issue 4, December 2005. pp 384 - 414 (with Janusz A. Ordover, New York University and Competition Policy Associates), and also at the Federal Reserve Bank of New York and the Review of Network Economics conference on "Antitrust Activity in Card-Based Payment Systems: Causes and Consequences," September 15, 2005.

"The Role of the Economist/Economics in 'Proving' Coordinated Effects," the Milton Handler Annual Antitrust Review sponsored by the Association of the Bar of the City of New York. Published in *Columbia Business Law Review*. 2004 Milton Handler Antitrust Review, Colum. Bus. L. Rev. 345 Vol 2005 (2).

Comments on "Regulations Amending the Canadian Computer Reservation Systems (CRS)," November 2003

Testimony at the FTC and DOJ Hearings on Healthcare and Competition and Law and Policy, February – May 2003

Presentation before the Computer Industry an Internet Committee Program, *Antitrust Counterclaims in Patent Infringement Lawsuits,* American Bar Association – Section of Antitrust Law, Spring Meeting, April 2-4, 2003.

"Economic Analysis of DOT Proposals to Change the CRS Rules," Appendix to Comments of Galileo International, (with I. Curtis Jernigan, and Gloria Hurdle), March 15, 2003.

"Economic Analysis of Healthcare Cost Studies Commissioned by Blue Cross Blue Shield Association," (with David Argue, Paul Godek, Barry Harris, Stephanie Mirrow), February 25, 2003.

"U.S. Antitrust Law Developments," *Canadian Competition Record*, Winter 2002-2003.

"What's New in Networks?" *Antitrust Litigator*, Summer 2002.

"Competition and Innovation in the Context of Network Economics," at the DOJ/FTC Hearings on Competition and Intellectual Property Law in the Knowledge-Based Economy, February 20, 2002.

"U.S. Antitrust Law Developments," Canadian Competition Record, Winter 2001-2002.

"Review of Selected Economic Literature on Merger Analysis," (with Stephanie Mirrow and Su Sun), July 2001. *Perspectives on the Concepts of Time, Change, and Materiality in Antitrust Enforcement*. Section of Antitrust Law, American Bar Association, (also presented at ABA Annual Meeting, August 2001).

"U.S. Antitrust Law Developments," Canadian Competition Record, Winter 2000-2001.

"Presenting Damages Evidence" before the Practicing Law Institute, Antitrust Litigation: Strategies for Success, November 30, 2000.

"Overview of B2Bs: Which Ones Raise Antitrust Issues?" before the Sixth Annual Health Care Forum, Northwestern University School of Law, November 2-3, 2000.

"An Economist's Perspective on B2Bs," Economists Ink, Fall 2000.

"How Do the New Competitor Collaboration Guidelines Address the New Economy?" before the ABA, Antitrust Section, Joint Ventures and Strategic Alliances, November 11-12, 1999.

"The Role of the Expert in Damages Analysis" before the Practicing Law Institute, November 8, 1999.

"Bank Mergers and the 1992 Merger Guidelines: The Bank of America/Security Pacific Transaction," (with Janusz Ordover), September 1999 (prepared for presentation at the 25th Anniversary of the Economics Analysis Group at the US Department of Justice). *Review of Industrial Organization, 16: 151 – 165, 2000.*

"Maximizing current and future network competition in payment systems" (with Janusz Ordover) before the American Bar Association, Antitrust Section, Antitrust Issues in High-Tech Industries Workshop, Scottsdale, AZ, February 25-26, 1999.

Supplemental Analysis of "Inherent Reasonableness" Survey, prepared for HIMA (with Matthew Mercurio); February 1999.

Report on DMERC "Inherent Reasonableness" Survey, prepared for HIMA (with Matthew Mercurio); November 1998.

Summary Report: Interviews of Representative HIMA Members' Views on FASA, prepared for HIMA (with Matthew Mercurio); July 1997.

"Networks and Network Externalities: What the Antitrust Lawyer Needs to Know: Concepts and Theory," before the American Bar Association, Antitrust Section, 45th Annual Spring Meeting, Washington, DC, April 10, 1997.

"Insights into Efficiencies from Analyses of Efficiencies in Hospital and Bank Mergers," before the American Bar Association, Antitrust Law Section, Washington, DC, November 7-8, 1996.

"Issues in Managed Care "Markets," before the American Bar Association Forum on Health Law and Antitrust Law Section (with Robert B. Greenbaum), New Orleans, Louisiana, October 24-25, 1996.

"Current Merger Policy: Banking and ATM Network Mergers," *Antitrust Bulletin*, Vol. XLI, No. 2, Summer 1996.

"ATM and Bank Electronic Networks: Competitive Issues and Technological Change," for presentation at the 71st Annual WEA International Conference, June 29, 1996.

"Assessing the Implications of Kodak for Franchise Market Power Issues," before the American Bar Association, Antitrust Law Section, Spring Meeting, Washington, DC, March 27, 1996.

"Current Merger Policy: Banking and ATM Network Mergers," before the OCC Conference, November 1995.

"Economists and Empirical Analysis in the Merger Review Process: Beyond Market Share and HHI Calculations," before the American Bar Association, Antitrust Law Section and the International Bar Association Antitrust and Trade Law Committee, Washington, DC, November 9-10, 1995.

"Network Merger Analysis," for presentation at the 43rd Annual American Bar Association, Antitrust Law Section, April 6, 1995.

"Assessing the Implications of Bank Merger Transactions after Interstate Banking and Branching Legislation: Lessons to Be Drawn From Bank Merger Cases and Analysis in the '90's," for presentation at ACI Third Annual Bank Regulation Conference, Washington, DC, March 16, 1995.

"Key Issues in Antitrust Analysis of Bank Mergers in the 1990's," for presentation at the Bank Mergers and Acquisitions Program Practicing Law Institute, September 12-13, 1994.

"Economic Issues in Network Merger Analysis," for presentation at Mergers: The Cutting Edge before the American Bar Association, 1994 Annual Meeting, New Orleans, August 9, 1994.

"Vertical Integration as a Threat to Competition Airline Computer Reservation Systems," in J. Kwoka Jr. and L. White, eds. *The Antitrust Revolution*, (2nd edition), 1993.

"The 1992 Agency Horizontal Merger Guidelines and the Department of Justice's Approach to Bank Merger Analysis," *Antitrust Bulletin*, Vol. XXXVII, No. 3, Fall 1992, (with Janusz Ordover).

"The 1992 Agency Horizontal Merger Guidelines and the Department of Justice Approach to Bank Mergers," in *Proceedings of the 28th Annual Conference on Bank Structure and Competition*, May 1992, (with Janusz Ordover).

Electronic Services Networks: *A Business and Public Policy Challenge*, Praeger, 1991, (with S. Wildman).

"Computer Reservations Systems and their Network Linkages to the Airline Industry," in *Electronic Services, Networks: A Business and Public Policy Challenge*, Praeger, 1991, (with R. Noll).

"Electronic Services Networks Functions, Structures, and Public Policy" in *Electronic Services Networks: A Business and Public Policy Challenge*, Praeger, 1991, (with S. Wildman).

"New Developments in Airline Merger Analysis: Changes in the Industry and the Evidence," *Regulatory Reform*, January 1988.

"State and Federal Regulation in the Market for Corporate Control," EAG Discussion Paper, EAG 86-4, *Antitrust Bulletin*, Winter 1988, (with R. McGuckin and F. Warren-Boulton).

"Current Issues in Airline Mergers," presented at the Stanford Conference on Firm Ownership and Competition, June 19-20, 1987.

"The 1982 Department of Justice Guidelines: Applications to Banking Markets," *Issues in Bank Regulation*, Winter 1983, reprinted in T. Havrilesky, R. Schweitzer, and J. Boorman, ed. *Dynamics of Banking*, Harlan Davidson, Inc., 1985.

Department of Justice, *Report to Congress on the Computer Reservations Industry*, December 1985.

"New Rules of the Game: Modifying Bank Merger Analysis to Account for Regulatory Changes," presented at the Association of Public Policy and Management Conference, New Orleans, October 1984

"The Determinants of Thrift Institutions' Commercial Lending Activity," *Chicago Bank Structure and Competition Compendium,* September 1983, (with C. Dunham).

"How Quickly Can Thrifts Move into Commercial Lending?" *New England Economic Review*, November/December 1983, (with C. Dunham).

Department of Justice, *Report to Congress on Competition in the Coal Industry*, March 1982.

Direct and Rebuttal Testimony in the *Investigation into the Competitive Marketing of Air Transportation*, at the Civil Aeronautics Board, August 1980.

National Benefits/Costs of Enhanced Oil Recovery Research Final Report, Arthur D. Little, Inc., submitted to the Energy Research and Development Administration, August 1976, (with F. Mansvelt-Beck and T. Rothermal)

OTHER PROFESSIONAL ACTIVITIES

Chair of the Membership Committee, Member Economic Evidence Task Force, Antitrust Section, American Bar Association

Member, American Economics Association

PAST PROFESSIONAL ACTIVITIES

Chair, Interagency Task Force on Bank Competition (at the U.S. Department of Justice, Antitrust Division)

Chair of the Exemptions and Immunities Task Force, Council Member, Chair, Financial Markets and Institutions Committee, Member Advisory Board on Section Reserves, Antitrust Section, American Bar Association

ATTACHMENT B

Trial Testimony

Trial Testimony of Victoria Bassetti.

Trial Testimony of Steve Bogard.

Trial Testimony of Richard Boulton.

Trial Testimony of Rick Carnes.

Trial Testimony of Eduardo Cue.

Trial Testimony of Claire Enders.

Trial Testimony of Roger Faxon.

Trial Testimony of Colin Finkelstein.

Trial Testimony of Nicholas Firth.

Trial Testimony of Philip Galdston.

Trial Testimony of Margaret Guerin-Calvert.

Trial Testimony of David Hughes.

Trial Testimony of David Israelite.

Trial Testimony of William Landes.

Trial Testimony of Alan McGlade.

Trial Testimony of Linda McLaughlin.

Trial Testimony of David Munns.

Trial Testimony of Helen Murphy.

Trial Testimony of Stephen Paulus.

Trial Testimony of Ralph Peer.

Trial Testimony of Timothy Quirk.

Trial Testimony of Irwin Robinson.

Trial Testimony of Maia Sharp.

Trial Testimony of Victoria Shaw.

Trial Testimony of Geoffrey Taylor.

Trial Testimony of David Teece.

Trial Testimony of Ronald Wilcox.

Industry Reports

Card, David, "Latest US Digital Music Forecast." JupiterResearch November 19,2007. Online available http://weblogs.JupiterResearch.com/analysts/card/archives/2007/11/latest_us_digit.html.

JupiterResearch, "JupiterResearch Forecasts Digital Transition Underway, but Digital Sales Not Enough to Save Music Industry." November 19, 2007. Online available http://www.jupiterresearch.com/bin/item.pl/press:press_release/2007/id=07.11.19-music-forecast.html/.

Expert Reports and Testimony

Amended Expert Report of William Landes, October 29, 2007.

Testimony of Timojhen Mark, AOL.

Testimony of Alexander Kirk, Rhapsody America.

Interrogatory Responses

Responses and Objections on Behalf of National Music Publishers' Association, Inc., The Songwriters Guild of America and Nashville Songwriters Association International to the Recording Industry Association of America's and Digital Media Association's First Set of Interrogatories. September 7, 2007.

Responses and Objections on Behalf of National Music Publishers' Association, Inc., The Songwriters Guild of America and Nashville Songwriters Association International to the Recording Industry Association of America's and Digital Media Association's Second Set of Interrogatories. October 1, 2007.

Post Trial Contentions

Applicants Post Trial Contentions, Public Version, dated January 11, 2008 (with Appendices).

Agreements

ABC Kids Music, Agarita Music, Buena Vista Music Co., Falferious Music, Five Hundred South Songs, Half Heart Music, Hollywood Pictures Music, Holpic Music Inc,, MRX Music Corp., Mirimax Film Music, Inc., MMX Music Corp., Nashville Songs, NEZ Music, Inc., Seven Peaks Music, Seven Summits Music, Touchstone Pictures Music & Songs, Inc., Walt Disney Music Company and Wonderland Music Company, Inc. Limited Download Mechanical License Agreement with RealNetworks, Inc. effective November 1, 2006.

BMI Digital Music Subscription Service Music Performance Agreement with RealNetworks, Inc. and Listen.com, Inc. effective December 22, 2004.

BMI Digital Music Subscription Service Music Settlement Agreement with RealNetworks, Inc. and Listen.com, Inc. effective December 22, 2004.

BMG Songs, Inc., Careers-BMG Music Publishing, Inc. Multisongs, Inc. Digital Jukebox Musical Composition License Agreement with AMI Entertainment, Inc. effective May 1, 2004.

BMG Songs, Inc. and Careers-BMG Music publishing, Inc. Digital Jukebox License Agreement with Barden Entertainment, Inc. effective September 1, 2003.

Careers-BMG Music Publishing, Inc. and BMG Songs, Inc. Agreement Amendment with TouchTunes Music Corporation effective August 19, 2004.

Careers-BMG Music Publishing, Inc., BMG Songs, Inc. Agreement Amendment with TouchTunes Digital Jukebox effective January 2, 2001.

Careers-BMG Music Publishing, Inc. BMG Songs, Inc. Digital Jukebox Musical Composition License Agreement with TouchTunes Digital Jukebox, Inc. effective July 15, 1998.

The Harry Fox Agency, Inc. Background Music Service Agreement with Bus Radio, Inc. effective December 20, 2006.

The Harry Fox Agency, Inc. Background Music License Agreement with PlayNetwork, lnc. effective October 1, 2000.

The Harry Fox Agency, Inc. Digital Jukebox Service Licensing Agreement with AMI Entertainment, Inc. effective May 20, 2004.

The Harry Fox Agency, Inc. “Opt-Out Notice: TruSonic Background Music Service” Letter to Publisher or Society dated February 2, 2004.

MCA Music Digital Jukebox Musical Composition License Agreement with TouchTunes Digital Jukebox, Inc. effective July 1, 1998.

MCA Music Publishing and Polygram Music publishing Agreement Amendment with TouchTunes Digital Jukebox effective January 2, 2001.

PolyGram lnternational Publishing, Inc. (ASCAP, Songs of PolyGram International , Inc. (BMI PolyGram lnternational Tunes, Inc. (SESAC))) Agreement Amendment with TouchTunes Digital Jukebox, Inc. effective January 1, 2000.

PolyGram lnternational Publishing, Inc. (ASCAP, Songs of PolyGram International , Inc. (BMI PolyGram lnternational Tunes, Inc. (SESAC))) Digital Jukebox Musical Composition License Agreement with TouchTunes Digital Jukebox, Inc. effective July 1, 1998.

SESAC Performance License Agreement with RealNetworks, Inc. effective January 1, 2008.

Silver Bow Funding, LLC f/b/o Neil Young d/b/a Silver Fiddle Music and Broken Fiddle Music and Broken Arrow Music License Agreement with RealNetworks, Inc. effective November 6, 2006.

TouchTunes Music Corporation Agreement Amendment with TouchTunes Digital Jukebox, Inc. effective January 1, 2000.

UMG and TouchTunes Offer Letter dated October 13, 2004.

Zomba Songs and Zomba Entertainment Inc. Digital Jukebox License Agreement with Barden Entertainment, Inc. effective September 1, 2003.

Zomba Songs Inc., Zomba Enterprises lnc. Zomba Melodies Inc. Digital Jukebox Publisher License Agreement with TouchTunes Music Corporation, Inc. effective October 1, 2001.

Zomba Songs Inc., Zomba Melodies lnc. & Zomba Enterprises Inc. Digital Jukebox Musical Composition License Agreement with Ecast, Inc. effective July 1, 2003.

Universal Music Group Agreement Amendment with TuchTunes Music Corporation effective August 19, 2004.

Universal Music Publishing Group Digital Jukebox Musical Composition License Agreement with AMI Entertainment, Inc. effective May 25, 2004.

Universal Music Publishing Group Digital Jukebox Musical Composition License Agreement with Ecast Inc. effective February 2, 2004.

Universal Music Publishing Group First Amendment to the Musical Composition License with Ecast Inc. effective July 1, 2006.

Digital Music Subscription Report Forms

BMI, "Digital Music Subscription Service Music Performance Agreement Quarterly Report Form, Sample as used by RealNetworks." 2007.

EMI, "US Subscription Service Revenue & Usage Report Form, Sample as used by MediaNet." January 2008.

Press Releases

Nokia, "Nokia World 2007: Nokia outlines its vision of Internet evolution and commitment to environmental sustainability." December 04, 2007. Online available http://www.nokia.com/A4136001?newsid=1172937.

RealNetworks, "Consumer Electronics Leaders Embrace Rhapsody DNA Platform." January 8, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/ces-rhap.html.

RealNetworks, "IRiver and RealNetworks Release Clix Rhapsody." July 9, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/iriver_clixrhap.html.

RealNetworks, "MTV Networks, RealNetworks and Verizon Wireless Join Forces to Offer a New Integrated Digital Music Experience." August 21, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/rhap_announcement.html.

RealNetworks, "New Realplayer Goes Portable by Providing Video Transfers to the iPod." November 15, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/rp11.html.

RealNetworks, "Philips Teams with Rhapsody to Launch New Lines of Portable and In-Home Audio Products." January 6, 2008. Online available http://www.realnetworks.com/company/press/releases/2008/rhap_philips.html.

RealNetworks, "RealNetworks Acquires Sony Netservices, Extending Global Leadership in Mobile Entertainment Services." May 16, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/real_sonyns.html.

RealNetworks, "RealNetworks and IRiver to Launch Two New Rhapsody Enhanced IRiver MP3 Player Lines." January 8, 2007. Online Available http://www.realnetworks.com/company/press/releases/2007/real_iriver.html.

RealNetworks, "RealNetworks and Lyricfind Bring Searchable Song Lyrics to Rhapsody Online." July 9, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/real_lyricfind.html.

RealNetworks, “RealNetworks and Nokia Make Wi-Fi Rhapsody a Reality with Nokia N800 Internet Tablet.” March 27, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/rhap_nokia.html.

RealNetworks, “RealNetworks Announces European Music Services Agreement with Vodafone.” May 16, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/real_vodafone.html.

RealNetworks, “RealNetworks Brings PC-Free Rhapsody Experience to the Logitech Squeezebox and Transporter Devices.” January 8, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/rhap_logitech.html.

RealNetworks, “RealNetworks Delivers EmoticonSMS to China Telecom Subscribers.” November 13, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/esms.html.

RealNetworks, “RealNetworks Launches Rhapsody 4.0 & Teams to Deliver First Rhapsody-Optimized MP3 Player.” October 5, 2006. Online available http://www.realnetworks.com/company/press/releases/2006/rhap4.html

RealNetworks, “RealNetworks Makes Multimedia Ringback Services Globally Available.” October 23, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/ctia07-3.html.

RealNetworks, “RealNetworks Showcases its ‘Entertainment as a Service’ Strategy at CES 2008.” January 7, 2008. Online available http://www.realnetworks.com/company/press/releases/2008/ces08.html.

RealNetworks, “RealNetworks Showcases Its Vision for Providing Consumers with Digital Entertainment That They Can Make Their Own at CTIA.” October 23, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/ctia07-1.html.

RealNetworks, “RealNetworks Teams Up With TiVo to Bring Rhapsody to the Living Room.” January 8, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/real_tivo.html.

RealNetworks, “RealNetworks to Showcase Mobile Entertainment-As-A-Service at Mobile World Congress Barcelona.” February 11, 2008. Online available http://www.realnetworks.com/company/press/releases/2008/mwc08_overview.html.

RealNetworks, “Rhapsody and TiVo Deliver Millions of Songs Direct to the Living Room.” October 9, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/rhap_tivo.html.

RealNetworks, “Rhapsody and Yahoo! Announce Strategic Partnership in Digital Music.” February 4, 2008. Online available

http://www.realnetworks.com/company/press/releases/2008/rhap_020408_159673265.html.

RealNetworks, “Rhapsody Teams with Universal Music Group for DRM-Free Music Test.” August 10, 2007. Online Available http://www.realnetworks.com/company/press/releases/2007/rhap_umg.html.

RealNetworks, “SK Telecom Extends Melon Partnership with RealNetworks.” February 11, 2008. Online available http://www.realnetworks.com/company/press/releases/2008/mwc08_sktelecom.html.

RealNetworks, “Wendy’s and Rhapsody Team Up to Give Away Up to One Hundred Million Song.” November 12, 2007. Online available http://www.realnetworks.com/company/press/releases/2007/rhap_wendys.html.

Sonos, “RealNetworks and Sonos Team to Offer First Multi-Room Digital Music Service.” January 5, 2005. Online available http://www.sonos.com/news_and_reviews/press_releases/2005/pr_010505_real.htm.

Sonos, “Sonos Tunes Up Wireless Multi-Room Digital Music with Plug-And-Play Access to Millions of Songs.” September 14, 2006. Online available http://www.sonos.com/news_and_reviews/press_releases/2006/pr_091406_elvis.htm.

Other Material

Aitken, Benjamin, “Download, Stream, Or Somewhere In Between: The Potential For Legal Music Use In Podcasting.” 2006 Duke L. & Tech. Rev. 0012 April 13, 2006. Online available http://www.law.duke.edu/journals/dltr/articles/2006DLTR0012.html.

Copyright Royalty Tribunal, “Adjustment of Royalty Payable Under Compulsory License for Making and
Distributing Phonorecords; Rates and Adjustment of Rates.” 46 FR 10466, February 3, 1981.

Digital Millennium Copyright Act Section 104 Report Hearing Before The Subcommittee On Courts, The Internet, And Intellectual Property Of The Committee On The Judiciary House Of Representatives One Hundred Seventh Congress First Session December 12-13, 2001.

The Harry Fox Agency, Inc. “Business Development Department Update” dated June 27, 2007.

Joint Statement of the Recording Industry Association of America, Inc., National Music Publishers’ Association, Inc. and The Harry Fox Agency, Inc. In the Matter of Mechanical and Digital Phonorecord Delivery Compulsory License dated December 6, 2001.

Recording Industry Association of America "2006 Year End Shipment Statistics." Online available http://76.74.24.142/6BC7251F-5E09-5359-8EBD-948C37FB6AE8.pdf.

Reply Comments of the Digital Media Association In the Matter of Mechanical and Digital Phonorecord Delivery Compulsory License dated February 27, 2002.

U.S. Copyright Office, "115 Roundtable Meeting Transcript." June 15, 2007.

U.S. Copyright Office, "Copyright Royalty Rates Section 115, the Mechanical License." Online available http://www.copyright.gov/carp/m200a.html.

Subscription Services

Bell, Donald "Subscription Music's Future Part 1." CNET March 3, 2008. Online available http://reviews.cnet.com/8301-6490_7-9882719-49.html.

Bell, Donald "Subscription Music's Future Part 2." CNET March 4, 2008. Online available http://reviews.cnet.com/8301-6490_7-9883692-49.html.

Hansell, Saul "Where is Apple's Rental Service for Music?" The New York Times January 17, 2008. Online available http://bits.blogs.nytimes.com/2008/01/17/where-is-apples-rental-service-for-music/.

Hansell, Saul "Two Views of Digital Music Subscriptions." The New York Times February 4, 2008. Online available http://bits.blogs.nytimes.com/2008/02/04/two-views-of-digital-music-subscriptions/.

IFPI "2007 Digital Music Report." January 2007. Online available http://www.ifpi.org/content/library/digital-music-report-2007.pdf.

IFPI "2008 Digital Music Report." January 2008. Online available http://www.ifpi.org/content/library/DMR2008.pdf.

Kirn, Peter "Yottamusic Dead; Subscription Music in Intensive Care." Create Digital Music. January 1, 2003.2008. Online available http://createdigitalmusic.com/2008/01/03/yottamusic-dead-subscription-music-in-intensive-care/.

LaGesse, David "Universal Music Pushes a Subscription Service." U.S. News and World Report. December 6, 2007. Online available http://www.usnews.com/blogs/daves-download/2007/12/6/universal-music-pushes-a-subscription-service.html.

Spellman, Peter "Staying Ahead Of the Curve: Music Marketing Trends You Can Count On." Music Careers. November 26, 2007. Online available http://www.musiccareers.net/articles/careers_in_music/music_marketing_trends/.

Strange, Adario“Music Business Pioneer Says IPod Will Soon Be Obsolete.” Wired Blog Network. September 4, 2007. Online available http://blog.wired.com/business/2007/09/music-business-.html.

“Top 10 Trends In Music For 2008” Our Digital Music January 9, 2008. Online available http://www.ourdigitalmusic.com/top-10-trends-in-music-for-2008/.

Digital Music Download and Subscription Service Prices

Amazonmp3,”Play Anywhere, DRM-Free Music Downloads.” Online available http://www.amazon.com/gp/dmusic/help/learn_more.html/ref=amb_link_4805422_1?pf_rd_m=ATVPDKIKX0DER&pf_rd_s=center-1&pf_rd_r=0C8V7F0PGP6Q8M72QNM7&pf_rd_t=101&pf_rd_p=361800601&pf_rd_i=163856011.

Apple, “iTunes Store Homepage.” 2008. Online available http://www.apple.com/itunes/store/music.html.

Bestbuy.com, “99¢ DRM-Free MP3s.” Online available. http://www.bestbuy.com/site/olspage.jsp?id=pcmcat130600050000&type=category.

Bestbuy.com, “About Best Buy Digital Music Store.” Online available http://www.real.com/rhapsody/bbdms/moreinfo.

Block, Ryan, “Microsoft beefs up Zune music and community experience.” Engadget. Online available http://www.engadget.com/2007/10/02/microsoft-beefs-up-zune-music-and-community-experience/.

Bruno, Anthony, “Music service featuring high-def files launches” Entertainment News Wire. October 3, 2005. Online available http://www.allbusiness.com/services/amusement-recreation-services/4742134-1.html.

eMusic.com, “About Us.” Online available http://www.emusic.com/about/index.html.

eMusic.com, “Main Page.” Online available http://www.emusic.com/.

eMusic.com, “Step 2: Plan Information.” Online available https://www.emusic.com/registration/2.html?SNID=8ADF5DA71BB9D4ECA53A3CA0BF47C1BF.

eMusic.com, “Subscription Agreement.” Online available http://www.emusic.com/legal/terms.html.

Evers, Joris “Real Music Store Opens for Business.” PC World. Online available http://www.pcworld.com/article/id,114108-page,1/article.html.

Kavilanz, Parija B. “Best Buy launches digital music store.” CNNMoney.com. Online available http://money.cnn.com/2006/10/05/news/companies/bestbuy_musicstore/index.htm?section=money_latest.

Kreps, Daniel, “Napster Joins DRM-Free Revolution, Announces Start of MP3 Sales.” Rock and Roll Daily. Online available http://www.rollingstone.com/rockdaily/index.php/2008/01/07/napster-joins-drm-free-revolution-announces-start-of-mp3-sales/.

Kawamoto, Dawn “Amazon to offer DRM-free music downloads.” CNET. Online available http://www.news.com/2100-1025_3-6184178.html.

McCarthy, Caroline, “Yahoo axes music service, strikes deal with Rhapsody.” CNET. Online available http://www.news.com/8301-13577_3-9863937-36.html.

Miller, Paul, “Microsoft launches the Zune!” Engadget. Online available http://www.engadget.com/2006/09/14/microsoft-launches-the-zune/.

MusicGiant “Frequently Asked Questions.” Online available http://musicgiants.com/faq.html.

Napster, “Napster 2.0 Makes Tracks” Nov 6, 2003. Online available http://investor.napster.com/releasedetail.cfm?ReleaseID=121908.

Napster, “Unlimited Music On Demand” Online available http://www.napster.com/choose/index_default_copy.html.

Ovide, Shira, “MySpace Announces Online Music Business.” The Wall Street Journal April 3, 2008. Online available http://online.wsj.com/article_print/SB120723678802486609.html.

RealMusic, “Music Store Help Overview.” Online available http://musicstore.real.com/music_store/help?tab=over.

RealMusic, “Music Store Main Page.” Online available http://musicstore.real.com/music_store/home.

RealMusic, “Music Store Terms of Use.” Online available http://musicstore.real.com/music_store/help?tab=terms.

Rhapsody, “Join The Best Buy Digital Music Store.” Online available https://order2.real.com/rhapsody/monthly/30dnocc/bestbuy?pcode=bby&ocode=bbdms&cpath=bby_togo&rsrc=bbyglobalhome&h=387.

Rhapsody, “Membership Plans: Your Music,Your Choice.” Online available http://learn.rhapsody.com/plans?pageid=unagi.11894418.wrapper&pageregion=div_02&src=learn_rhap_whatis&pcode=rn&opage=learn_rhap_whatis.

Robb, Charlie “MusicGiants partners with Olive to offer lossless DRM-free downloads.” AVguide.com. Online available http://www.avguide.com/news/2007/10/12/musicgiants-partners-with-olive-to-offer-lossless-drm-free-downloads/.

Walmart.com, “Music Downloads.” Online available http://musicdownloads.walmart.com/catalog/servlet/MainServlet.

Walmart.com, “Music Downloads General Questions.” Online available http://musicdownloads.walmart.com/catalog/servlet/HelpTopicServlet?topicIndex=0.

Wikipedia, “iTunes Store.” March 25, 2008. Online available http://en.wikipedia.org/wiki/ITunes_Store.

Wikipedia, “Yahoo! Music Unlimited” March 22, 2008 http://en.wikipedia.org/wiki/Yahoo!_Music_Unlimited.

Yahoo! Music Unlimited, “Download Music.” Online available http://music.yahoo.com/artist/singledownload/?songid=51211747&hasYME=0.

Yahoo! Music Unlimited, “Music Store Main Page.” Online available http://music.yahoo.com/ymu/?tab=getstarted.

Yahoo! Music Unlimited, “What is a Burnable (Permanent) Download?” Online available http://help.yahoo.com/l/us/yahoo/music/jukebox/glossary/glossary03.html.

Zune, “Zune Market Place.” Online available http://www.zune.net/en-US/products/zunemarketplace.

Zune, “Zune Market Place Interface” Accessed March 28, 2008.

Ringtone Pricing

Apple, “Ring a Tune.” Online available http://www.apple.com/itunes/store/ringtones.html.

AT&T Media Mall, “FAQs: Purchasing and Pricing.” Online available http://mediamall.wireless.att.com/sf/storefront/endUserHTMLFAQ.jsp?faqid=CFSFMIF3&pc=U&dc=.

Jamster. “Main Page.” Online available http://ad.jamster.com/landingpages/campaigns/int_o_flow/fire_hottones_gray/?adv_partne.

Lawson, Stephen, “Jamster slammed for mobile selling practices.” Internet News for Internet Business April 5, 2005 Online available http://archive.thestandard.com/internetnews/002933.php.

Liltone.com, “Main Page.” Online available http://www.liltone.com/ltpublicbeta/.

Moringtone.Mobi, “Ringtone download Service Comparison.” Online available http://moringtone.mobi/ringtonecomparison.html.

The Online Reporter, “Cingular intros music tones from major labels.(Cingular Wireless L.L.C.)(Brief Article).”March 2004. Online available http://findarticles.com/p/articles/mi_hb5932/is_200403/ai_n23877743.

Pogue, David, “A Baffling New Phenomenon: Customized Ringtones.” The New York Times September 13, 2007. Online available http://www.nytimes.com/2007/09/13/technology/circuits/13pogue-email.html?_r=2&oref=slogin&oref=slogin.

Sood, Natesh, “iTunes now selling ringtones for iPhone.” Gadgetell.com September 6, 2007. Online available http://www.gadgetell.com/tech/comment/itunes-now-selling-ringtones-for-iphone/.

Sprint, “How much does a ringer cost?” Online available http://search.sprint.com/inquiraapp/ui.jsp?ui_mode=answer&prior_transaction_id=1340956&iq_action=5&answer_id=16777219&highlight_info=6292276,9,15&turl=http%3A%2F%2Fsupport%2Esprint%2Ecom%2Fdoc%2Fsp7544%2Exml%3Fid16%3Dringer_costs#__highlight.

“Sprint Signs Deals Bringing Music to Customers' Ears” Kansas City Business Journal June 30, 2003. Online available http://kansascity.bizjournals.com/kansascity/stories/2003/06/30/daily8.html.

“Start-Up Provides “Free + User-Generated” Alternative Service To Chaotic Ringtone Market.”1880 Press Release November 20, 2007. Online available http://www.1888pressrelease.com/stat-up-provides-free-+-user-generated-alternative-service-pr-fr492mp30.html.

T-Mobile, “Ask T-Mobile: Range of Ringtone Prices.” Online available http://search.t-mobile.com/inquiraapp/ui.jsp?ui_mode=question&question_box=range+of+ringtone+prices.

T-Mobile, “Company Information.” Online available http://www.t-mobile.com/Company/CompanyInfo.aspx?tp=Abt_Tab_CompanyOverview&tsp=Abt_Sub_History.

Universal Music Group, “Universal Music Group And Sprint Sign Agreement To Offer Mobile Music Fans New Ringer Choices Featuring Some Of The World’S Most Renowned Artists.” August 14, 2003. Online available http://new.umusic.com/News.aspx?NewsId=180.

Verizon Wireless, “Ringtones: Browse Ringtone Providers.” Online available http://products.vzw.com/search_providers.aspx?id=search_providers&appSearchParentCategoryId=244&appSearchCategoryId=258&platformId=1025.

Verizon Wireless, “Sony Music Entertainment and Verizon Wireless Launch First “Real Music” Ringtone Offering for Verizon Wireless Customers.” March 24, 2004. Online available http://news.vzw.com/news/2004/03/pr2004-03-24b.html.

DRM Pricing Trends

Breen, Christopher, “Digital Music Trends: DRM Declines, iPod Rises in 2007.” PC World December 26, 2007. Online available http://www.pcworld.com/printable/article/id,140851/printable.html.

Graham, Jefferson “Competition Sneaks Up on iTunes.” MacNewsWorld March 26, 2008. Online available http://www.macnewsworld.com/story/62304.html.

Zafra, Arnold, “Amazon quickly hits #2 with DRM-free online music.” Gadgetell March 27, 2008. Online available http://www.gadgetell.com/tech/comment/amazon-quickly-hits-2-with-drm-free-online-music/.