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IN THE MATTER OF:)
)
DETERMINATION OF RATES) Docket No.
AND TERMS FOR MAKING AND) 16-CRB-0003-PR
DISTRIBUTING PHONORECORDS) (2018-2022)
(PHONORECORDS III),)
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REVISED AND CORRECTED TRANSCRIPT

OPEN SESSION

Pages: 1652 through 1987 (with excerpts)

Place: Washington, D.C.

Date: March 20, 2017

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7 AND TERMS FOR MAKING AND) 16-CRB-0003-PR

8 DISTRIBUTING PHONORECORDS) (2018-2022)

9 (PHONORECORDS III),)

10 -----X

11 BEFORE: THE HONORABLE SUZANNE BARNETT

12 THE HONORABLE JESSE M. FEDER

13 THE HONORABLE DAVID R. STRICKLER

14 Copyright Royalty Judges

15

16 Library of Congress

17 Madison Building

18 101 Independence Avenue, S.E.

19 Washington, D.C.

20

21 March 20, 2017

22 9:07 a.m.

23 VOLUME VII

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1 P R O C E E D I N G S

2 (9:07 a.m.)

3 JUDGE BARNETT: Good morning. Please be
4 seated. I'm sure you're familiar with the adage
5 clothes don't make the judge. I took my robe home
6 on Friday for cleaning and I came back without it
7 this morning. So I'm presiding in this. Just try
8 not to notice.

9 (Laughter.)

10 I believe we're starting with Mr. Page this
11 morning; is that correct?

12 MR. MANCINI: That's correct, Your Honor.

13 JUDGE BARNETT: Mr. Mancini.

14 MR. SEMEL: If I may, Your Honor, just as
15 a preliminary, I wanted to outline just for
16 efficiency's sake, I think with this witness, we
17 have a slightly different than -- almost all or all
18 the other witnesses coming from the Services, we
19 have a number of objections relating to evidence, a
20 number of objections to both exhibits and evidence
21 in the statement.

22 And I know you had said at the beginning
23 of the proceeding with exhibits, you might want to
24 handle that in advance, and the statements, maybe
25 handle that as we go on cross.

1 The suggestion, proposal I might make --
2 and this is probably about 20 exhibits we have
3 objections to and a lot of the statements. My
4 proposal would be, just to keep things moving, that
5 they move ahead with their direct, we may make some
6 objections seeking foundation, give them a chance to
7 lay foundation to your liking, give us a chance on
8 cross, if we need to, to question that, and then
9 reserve the right to put in some supplemental
10 briefing on this.

11 However you want, we could go through the
12 exhibits now, but it seems like there's a lot of --
13 there's a lot of objections, and it might burden the
14 proceedings for us to be breaking it in constantly.

15 JUDGE BARNETT: Mr. Mancini?

16 MR. MANCINI: We think it's a fine idea,
17 Your Honor, to have a supplemental briefing on the
18 issue. As I understand from Mr. Semel, he may have
19 objections to as many as 20 exhibits, and I think in
20 the interest of time, we ought to just reserve that
21 for later.

22 JUDGE BARNETT: It sounds like a good
23 suggestion. We'll go with that and leave you the
24 opportunity then to file some papers, both sides.

25 MR. MANCINI: Thank you, Your Honor.

1 MR. SEMEL: The one thing I would add is
2 that my intention was to just briefly make notes of
3 objections seeking foundation to prompt him so that
4 later on there isn't a question of, oh, I didn't
5 know you wanted a foundation. Okay?

6 JUDGE BARNETT: Right. You should
7 identify the objections on the record and then
8 follow them up with the writing.

9 MR. SEMEL: Great. Thank you.

10 MR. MANCINI: Thank you.

11 MR. SEMEL: And could I, though, with
12 respect to the content of the testimony itself have
13 a standing objection pending the briefing because
14 that's the sentence by sentence thing and I don't
15 know that he's going to go through every sentence.
16 So I figured I would just leave that until later.

17 JUDGE BARNETT: Your objection is on the
18 record, Mr. Semel.

19 MR. SEMEL: And then with the exhibits,
20 as he tries to put them in, we can deal with them.

21 JUDGE BARNETT: Okay.

22 MR. ISAKOFF: Your Honor, the microphones
23 were helpfully turned up the end of last week so
24 those in the back of the room can hear, and we would
25 very much appreciate it if they could be turned up

1 again.

2 MR. SEMEL: Yeah. Does that work better?
3 Does this work better?

4 MR. ISAKOFF: Well, I think they're done
5 centrally so that we can hear the Judges and the
6 witness, and it made a huge difference when that was
7 done last week.

8 JUDGE BARNETT: Testing, testing. Let us
9 know if that's not better.

10 MR. ISAKOFF: That's much better, thank
11 you.

12 JUDGE BARNETT: Okay, great.

13 MR. MANCINI: With that, Your Honor,
14 Spotify would like to call Mr. Will Page.

15 JUDGE BARNETT: Mr. Page, if you would
16 raise your right hand.

17 Whereupon--

18 WILL PAGE,
19 having been first duly sworn, was examined and
20 testified as follows:

21 MR. MANCINI: Your Honor, before we
22 begin, counsel for Spotify has also reached
23 agreement with the Copyright Owners that although
24 Mr. Page will provide both a written direct
25 testimony and a written rebuttal testimony, he can

1 appear in this proceeding once on both submissions.

2 JUDGE BARNETT: Agreed?

3 MR. SEMEL: Yes, that is agreed.

4 JUDGE BARNETT: Thank you.

5 DIRECT EXAMINATION

6 BY MR. MANCINI:

7 Q. Would you please state your name for the
8 record?

9 A. Will Page.

10 Q. And where is your employment currently?

11 A. In Spotify U.K. based in London.

12 Q. And what is your position within Spotify?

13 A. Director of economics.

14 Q. Did you have the occasion to submit a
15 written direct testimony in this proceeding?

16 A. Yes, I did.

17 Q. Mr. Page, in your binder, I ask you to
18 turn to a document that has been previously marked
19 as Trial Exhibit 1061. And let me know when you've
20 located it.

21 A. I have that here.

22 Q. Is that a copy of the written direct
23 testimony that you've submitted in this proceeding?

24 A. Yes, it is.

25 Q. And I ask you to turn your attention to

1 the last page of that document, please.

2 A. I have that here.

3 Q. Is that your signature?

4 A. Yes, it is.

5 Q. Are the statements contained therein
6 true, to the best of your information and belief?

7 A. Yes, they are.

8 MR. MANCINI: Your Honor, I'd like to
9 move into evidence Spotify Trial Exhibit 1061.

10 MR. SEMEL: We do object, maybe if this
11 could be provisional to our briefing.

12 JUDGE BARNETT: Yes. 1061 is admitted
13 with the understanding that there will be follow-up
14 written materials.

15 (Spotify Exhibit Number 1061 was marked
16 and received into evidence.)

17 BY MR. MANCINI:

18 Q. Mr. Page, did you also have the occasion
19 to submit a written rebuttal testimony in this
20 proceeding?

21 A. Yes, I did.

22 Q. If you look, again, in your binder, I ask
23 you to turn your attention to Spotify Trial Exhibit
24 1067. Let me know when you've located it.

25 A. I have that here.

1 Q. Is this document a copy of your written
2 rebuttal testimony in this proceeding?

3 A. Yes, it is.

4 Q. And let me ask you to turn your attention
5 to the last page of that document, please.

6 A. I have that here.

7 Q. Is that your signature?

8 A. Yes, it is.

9 Q. Are the statements contained herein true
10 and correct, to the best of your information and
11 belief?

12 A. Yes, they are.

13 MR. MANCINI: Your Honors, I'd like to
14 move into evidence Spotify Trial Exhibit 1067.

15 MR. SEMEL: Same objection.

16 JUDGE BARNETT: Same circumstances.

17 (Spotify Exhibit Number 1067 was marked
18 and received into evidence.)

19 BY MR. MANCINI:

20 Q. Mr. Page, now coming back to your current
21 employment as director of economics at Spotify, how
22 long have you been in that position?

23 A. For just under four and a half years.

24 Q. And did you hold any positions at Spotify
25 prior to that time?

1 A. No, I did not.

2 Q. Were you previously employed, to Spotify?

3 A. No.

4 Q. Where were you employed prior to working
5 at Spotify?

6 A. I was employed at PRS For Music based in
7 London.

8 Q. And what was your role at PRS?

9 A. Chief economist.

10 Q. And what is PRS?

11 A. PRS For Music is akin to ASCAP or BMI in
12 the United States. It's a collection society that
13 represents interests of songwriters, music
14 publishers within the U.K.

15 Q. And how many years were you at PRS?

16 A. I was there for six years.

17 Q. And where were you employed prior to
18 working at PRS?

19 A. The U.K. Government Economic Service,
20 based in Edinburgh, Scotland.

21 Q. What was your roles and responsibilities
22 at the government economics in U.K. government?

23 A. A combination of macroeconomics,
24 forecasting and projections of spending, and
25 microeconomics in developing evidence-based policy.

1 Q. And what is your academic training?

2 A. A four-year honors degree from University
3 of Strathclyde in Glasgow and a one-year Master's
4 degree from the University of Edinburgh.

5 Q. Coming back to your current role at
6 Spotify as director of economics, what are your
7 roles and responsibilities?

8 A. Again, a combination of macroeconomics
9 and the landscape of the market and microeconomics
10 such as new market launches.

11 Q. When you say the landscape of the market,
12 have you had the occasion to study the landscape of
13 the music industry at the time Spotify was formed?

14 A. Yes, I have.

15 Q. And did you observe any industry trends
16 in the music industry at the time of Spotify's
17 foundation?

18 A. Yes.

19 Q. And what were some of those trends in
20 existence at the time?

21 A. Well, we're going back to 2006, which is
22 important. It's when I started in the music
23 industry and it's also when Spotify was formed. And
24 the music industry in Sweden, where -- where Spotify
25 came from, represented a global trend where piracy

1 was increasing and revenues were falling. There was
2 nothing unusual about that. The industry was
3 staring into an abyss globally at that point. But
4 the local twist to Sweden was many of the piracy
5 sites that were known around the world were coming
6 from Sweden.

7 So to give you some examples, uTorrent
8 and Kazar and probably most famously The Pirate Bay
9 all came from Sweden. So not just was Sweden seeing
10 their revenues decline and piracy grow, but they
11 were also seeing these globally famous piracy sites
12 come from the country so there was an environment of
13 piracy in Sweden, which made the birth of Spotify
14 particularly interesting.

15 Q. And was there something about the birth
16 of Spotify or its model that was a response to that
17 landscape of piracy?

18 A. Yes. If you go back to 2006, and again
19 as a lonely economist in the business, what I saw
20 was the debate about piracy was 95 percent focused
21 on sticks and 5 percent focused on carrots.
22 Everything was thinking about legal measures to stop
23 piracy, and they weren't necessarily thinking about
24 superior models to piracy.

25 And my thoughts at the time were very

1 similar to that of Daniel Ek, our founder, which was
2 that consumption of music was not a problem at that
3 point in time. Monetization of music was. This
4 point could be transferred to many other media
5 formats today.

6 So the vision that Spotify had back in
7 2006 that I shared back in 2006 was if you can build
8 a superior alternative to piracy, those consumers
9 will come and we can get the industry onto a
10 sustainable recovery.

11 Q. And have you had the occasion to study
12 the impact that Spotify has had on piracy?

13 A. Yes, I have.

14 Q. And do you speak about any of those
15 studies in your written testimony?

16 A. Yes, I refer to a study published in the
17 summer of 2013 called Adventures in the Netherlands.

18 Q. Let me ask you to turn your attention to
19 an exhibit marked 220 in your binder, document
20 called Adventures in the Netherlands.

21 A. I have that here.

22 Q. Is this a true and correct copy of the
23 study that you just referred to?

24 A. Yes, it is.

25 Q. And who performed this study?

1 A. I conducted this study.

2 Q. Did you conduct this study in connection
3 with anyone else?

4 A. I collaborated with an independent
5 measurement company, MusicMetric, and also with
6 rightsholders and independent academics to vet the
7 work.

8 MR. MANCINI: Your Honors, I'd like to
9 move into evidence Trial Exhibit 220.

10 MR. SEMEL: Objection here is that the
11 data underlying the study was not produced. We can
12 address that in the briefing as well.

13 JUDGE BARNETT: Thank you. So the
14 exhibit is admitted provisionally and the objection
15 is noted.

16 (Amazon Exhibit Number 220 was marked and
17 received into evidence.)

18 BY MR. MANCINI:

19 Q. Mr. Page, why did you choose the
20 Netherlands to perform this study?

21 A. I was conscious there were many academic
22 studies arguing to and fro about the impact of
23 piracy before setting about this project. I wanted
24 to advance the methods to which we measure piracy by
25 working with MusicMetric, that is, we could apply

1 network measurement as opposed to relying on
2 surveys. That in itself was a big step forward.

3 But the reason for Holland is twofold.
4 Firstly, and perhaps a point of irony, is that we
5 had really cracked the Dutch music market in 2012,
6 which I understand was the last time CRB process met
7 on this issue. That is we had proven the business
8 in many north European countries more than five
9 years ago.

10 And so not only was it the case that we
11 had had a lot of success in Holland and we could
12 look at our impact on piracy, but the legal twist to
13 this is fascinating, which is under Dutch law at
14 that particular time, the act of downloading a
15 BitTorrent file from an unlicensed music site was
16 not considered unlawful. I am not a lawyer, but I
17 want to be stress here it wasn't against the law.
18 Indeed, we used to joke that in Holland copyright
19 infringement was treated like cannabis; both were
20 allowed under Dutch law.

21 So the question I wanted to pose here was
22 can Spotify reduce piracy even when it's not
23 actually against the law?

24 Q. And what were the conclusions you reached
25 from that question?

1 A. So there are two conclusions I would draw
2 from the study. And the first was that we have an
3 encouraging downward trend in piracy in Holland, and
4 from this study and from many other supporting
5 documents that have come out of Holland since.

6 I should also cite with respect to my
7 written direct testimony and my written direct
8 rebuttal that the Dutch music industry is now the
9 best-performing market in the western world.
10 Revenues at the half-year stage were growing at
11 close to 23 percent, which is fantastic. It's a
12 huge goal that Spotify set out to do. We have
13 reduced piracy and we have increased revenues. That
14 twofold double dynamic is critical to what we set
15 out to do over ten years ago.

16 The second conclusion I would draw from
17 this study comes from chapter 3 of the report, and
18 that's where we were looking at some artist case
19 studies and the impact Spotify was having with
20 regards to piracy. Now, the important point of
21 chapter 3 is to understand that when people debate
22 sales versus streams, that presents a zero sum gain.
23 What I wanted to do was triangulate the question by
24 saying consumers can go to the Internet to buy
25 content, to access content through legal venues such

1 as Spotify's steaming model, but also to steal
2 content from piracy sites. So there are three ways
3 in which you can get content from the Internet, not
4 just two.

5 Q. And in your study, do you point to any
6 specific examples to illustrate your conclusions?

7 A. Yes. We performed two case studies
8 involving four artists, four international pop
9 artists, who all released their albums in the second
10 week of November of 2012. And two of those artists
11 engaged with Spotify; the other two withheld. And
12 that allowed me to conduct a sort of very
13 provisional AB experiment to look at the impact we
14 were having in the marketplace.

15 Q. I'd ask you to turn your attention to the
16 monitor in front of you. You have a demonstrative
17 that encapsulates, I believe, the results of those
18 two engagement studies; is that correct?

19 A. That is correct.

20 Q. What does this chart tell us?

21 A. So the chart may be a little bit
22 confusing on first glance, but to iterate, it's a
23 secondary access chart. That is we're plotting
24 sales and BitTorrent files on the left-hand access
25 and Spotify streams on the right-hand access. As we

1 go through the color codings, Spotify appropriately
2 is in green, sales are in white, and Torrent files
3 are in red.

4 And the two others that we're looking at
5 here are One Direction, with their album Take Me
6 Home, and Robby Williams with the album Take the
7 Crown. Both of these artists engaged with Spotify
8 and worked with this Freemium model to allow a legal
9 access alternative for the consumer.

10 And what we learned is the first
11 question, which is did you sell more than you were
12 stolen, that is, is the white line above the red
13 line? And in both artists, they sold three to four
14 times as much as they were stolen.

15 The second question in the way that we
16 phrased the logic of this experiment was given the
17 question one, how did you do in Spotify with respect
18 to streams? And the green lane shows considerable
19 progress on streaming volumes as well.

20 So to reiterate the first question, did
21 you sell more than you were stolen, and were you
22 stolen more than you were sold, and then the second
23 question is then what happened on streaming? We
24 felt this was the best objective logical approach to
25 -- to taking on this case study.

1 So to reiterate, the artists engaged with
2 Spotify, One Direction and Robby Williams, they both
3 sold considerably more than they were stolen, and
4 they both had considerable success on Spotify.

5 Q. And what did you find with respect to the
6 artists that did not engage with Spotify? And here
7 I'm going to turn your attention to a demonstrative
8 which is also taken from your report.

9 A. Great. So with this, we're now looking
10 at Taylor Swift's album Red and Rihanna's album
11 Unapologetic. And the twist here is that both these
12 artists withheld their content from Spotify. So
13 what we're asking here is did you sell more than you
14 were stolen? Question one. And, again,
15 objectively, how did you perform in Spotify?
16 Question two.

17 And what you can see is that the red and
18 white lines are basically moving in tandem. Across
19 the period of time, both artists were stolen as much
20 as they were sold. And to question two, they had no
21 success in Spotify.

22 Now, to reiterate, we go through in the
23 report all the caveats associated with this work.
24 We want to be explicitly clear about what you can
25 and cannot conclude. But what's clear for me is

1 artists who engage with Spotify have success in our
2 service and are able to reduce the level of piracy
3 they were experiencing. It's a very, very important
4 lesson. Firstly, it's not just about sales and
5 streams; it's about sales, streams, and piracy.
6 And, secondly, we can now appreciate the impact
7 Spotify has had in reducing piracy. And to
8 reiterate, reducing piracy in a country where it
9 wasn't even unlawful to steal a file.

10 JUDGE STRICKLER: Mr. Page, good morning.

11 THE WITNESS: Good morning.

12 JUDGE STRICKLER: Do you believe that the
13 results of this study or these studies that you've
14 just talked about can be extrapolated to the U.S.
15 market?

16 THE WITNESS: I would -- we haven't
17 conducted this type of study in America,
18 unfortunately. But I think the lesson that Holland
19 teaches us if we can crush piracy in a country where
20 piracy wasn't against the law, then it would
21 therefore hold that there's a considerable chance we
22 can crush piracy here in America, where it is
23 against the law. To remember the twist to the story
24 of Holland is I'm taking the most relaxed copyright
25 laws I can find in the western world and we still

1 did it. We still reduced piracy, and to go back to
2 the half year results, we still drew revenues. So I
3 would argue that you can apply that lesson to
4 countries with stronger copyright laws and expect a
5 similar effect.

6 JUDGE STRICKLER: Did I see that you've
7 made a comparison in your report between the results
8 in the Netherlands and in Italy?

9 THE WITNESS: Yes.

10 JUDGE STRICKLER: Why did you pick Italy
11 as the comparative?

12 THE WITNESS: So Italy was another
13 country which had rampant piracy. And to stress, I
14 worked with rightsholders in working out which would
15 be good countries to pick, and also in 2012 we had
16 yet to properly launch in Italy as well. So we're
17 taking a country where Spotify was active in and had
18 received scale. Remember we cannot reduce piracy
19 until we achieve scale.

20 And then we take Italy as a country where
21 we were only partially launched towards the end of
22 that year and we had no scale. And what was
23 interesting there was the level of piracy in Holland
24 was considerably smaller than that of Italy. And
25 that gave us a cross-country example within Europe

1 to further enhance results in terms of our impact in
2 reducing piracy in Holland.

3 JUDGE STRICKLER: Did you make any
4 determinations from the survey with regard to Italy?

5 THE WITNESS: And so I think what we can
6 learn from Italy was that piracy was more prominent
7 or more present, you could argue based on the data,
8 and, therefore, it would have been nice to have been
9 able to return to Italy and study again the impacts
10 over time.

11 But I should stress the ability to use
12 MusicMetric data was limited because the company got
13 acquired by Apple and -- which restricted what we
14 could do going forward with this particular
15 measurement company.

16 JUDGE STRICKLER: Thank you.

17 BY MR. MANCINI:

18 Q. Switching topics, Mr. Page, in your role
19 as director of economics, have you also had occasion
20 to study the performance of the music industry since
21 before and after the advent of piracy?

22 A. Yes, I have.

23 Q. And, specifically, did you have any
24 occasion to study the performance of the recorded
25 music industry since before and after the advent of

1 piracy?

2 A. Yes, I have.

3 Q. And what data did you look at to study
4 the performance of the recorded music industry?

5 A. I was able to refer to IFPI data, that
6 is, the international trade body for record labels,
7 and study the U.S. music revenues over time.

8 Q. And the data that you reviewed from the
9 IFPI, is that publicly available?

10 A. Yes, it is.

11 Q. Is it voluminous?

12 A. Yes.

13 Q. And did you prepare a summary chart of
14 that data?

15 A. Yes, I refer to it in my written direct
16 testimony and my written direct rebuttal.

17 Q. And if I could turn your attention now to
18 Demonstrative Number 3, which should be on your
19 slide. Is this the summary chart of the IFPI data
20 that you testified to in your written rebuttal
21 testimony?

22 A. Yes, it is.

23 Q. And who prepared this chart?

24 A. I prepared this chart.

25 Q. And, again, what data did you use to

1 prepare this chart?

2 A. I used the IFPI official database to
3 create this chart.

4 MR. MANCINI: Your Honor, we'd like to
5 move into evidence Spotify Exhibit 1021.

6 MR. SEMEL: Yes, Your Honor. This is the
7 beginning, I think, of probably a number of
8 objections like this. This is third-party data.
9 This is a fact witness. What he's engaging in is
10 what we'd typically seek from an expert witness.

11 But the -- the witness has not been
12 subjected to expert discovery, has not produced his
13 materials relied upon, his workpapers, or anything.
14 This is really just third-party data being submitted
15 to the Court by a fact witness, of which he
16 admittedly has no personal knowledge.

17 JUDGE BARNETT: Thank you.

18 MR. MANCINI: Your Honor, do you want me
19 to respond or we'll put it within the supplemental
20 submission?

21 JUDGE BARNETT: Let's just put it in the
22 supplemental submission. This is 1021?

23 MR. MANCINI: It is, yes, Exhibit 1021.

24 JUDGE BARNETT: Provisionally admitted.

25 MR. MANCINI: Thank you.

1 (Spotify Exhibit Number 1021 was marked
2 and received into evidence.)

3 BY MR. MANCINI:

4 Q. Going back to this IFPI summary chart,
5 Mr. Page, what were some of the industry trends you
6 observed that were impacting revenues for the
7 recorded music industry?

8 A. So I'm conscious of a lot of information
9 in the slide, but firstly let's just understand the
10 rows and columns. Our time period here is from 1997
11 to 2015. And on the Y axis, you have the different
12 formats of revenues that were making up the U.S.
13 music market at that time.

14 And let's remind ourselves this is
15 recorded music revenues, not publishing revenues.
16 Fair to say that we should remind ourselves, too,
17 that publishing revenues are contained in many of
18 these figures through pass-through.

19 So if we're taking a look at the area
20 that has been blown up here, which runs from 1997 to
21 2002, the first observation is there really is only
22 one line that's populated with revenue there, which
23 is physical revenues. That is to say the U.S. music
24 market was dominated by CD sales during that period.

25 And our second observation is when did

1 those numbers reach a peak? And they reached a peak
2 in 1999 at 8.4 billion U.S. dollars. That was the
3 same year that Napster entered the lexicon of the
4 modern-day culture of the American music consumer
5 and equally in Europe the same year that WinApp came
6 to success in European countries.

7 So what we can see there is that the year
8 that piracy again, the year that Napster entered the
9 sort of cultural language of American music buyers,
10 was the year that physical revenues started going
11 into decline.

12 Q. And taking the next few years, were you
13 able to identify any further trends a few years out?

14 A. Yes, I believe we're highlighting here
15 the midpoint of this table, which runs from 2003 to
16 2008. And I think the first observation is you can
17 start to see more rows get populated, that is,
18 revenue streams were becoming more diversified.
19 We're not just having all of our eggs in one basket,
20 so the entire industry is no longer just dependent
21 on CD sales.

22 The second top row there is download
23 revenues, without doubt dominated by iTunes and we
24 should remind ourselves iTunes actually launched in
25 America in 2003 but revenues start flowing through

1 in 2004. But what we can also see is as revenues
2 from iTunes start to grow, and as we go to the lower
3 end of that chart, the total revenues of the
4 industry continue to fall.

5 I think this is interesting. And when I
6 read the copyright holders arguments, there was
7 almost an nostalgia about the iTunes model, that
8 replicating the ownership model but in a digital
9 space. And I remember at the time, prior even to
10 joining the PRS, what was clear to me was this model
11 of replicating the ownership model in digital space
12 wasn't going to fill the gap, not in America and not
13 on a global stage.

14 So as iTunes and download revenues
15 started to expand, the overall pie started to
16 contract.

17 Q. And now finally coming to the last few
18 years of this chart, were you able to observe any
19 further industry trends impacting revenues for the
20 U.S. recorded music industry?

21 A. Right. So just to recapture, now we're
22 looking at 2009 to 2015. And we can see even more
23 rows being populated with even more revenues. For
24 example, synchronization revenue began in 2010. I
25 want to stress for everyone in the courtroom, when

1 you're trying to understand market data, you have to
2 be aware that there was synchronization revenues
3 before 2010, but only at that point did the IFPI
4 choose to register it.

5 But we can also see as we go down to
6 rows -- I would say, fourth and fifth rows and we
7 can see the introduction of streaming. That's
8 titled Subscription Streams Income which is paid
9 and, to reiterate, and I apologize to the Judges
10 because this is very confusing, our free revenues
11 are contained in that subscription income row and
12 ad-supported streaming income, which is defined as
13 IFPI as being video streaming revenue, mainly,
14 obviously, that of YouTube, Vivo, the Dailymotion,
15 and other services.

16 So that complexity explained what we can
17 now look at here is the growth of streaming income
18 and which starts at relatively small figures but, by
19 2015, is offering a very significant part of the
20 music industry's overall portfolio.

21 Then I draw your attention down towards
22 the percentage changes at the lower end of the
23 table. What you can see there is now a stability
24 and even growth appearing in the fortunes of the
25 U.S. music industry. That is, we see growth of

1 4.3 percent, .9 percent, 3.6 percent, a small dip
2 and then growth of 1.4 percent. So what we can
3 conclude there, I would argue, is firstly we learn
4 that when piracy was introduced, revenues started to
5 go into decline. Secondly, when downloads were
6 introduced, revenues for the best part continued to
7 contracting. And, thirdly, only with a diversified
8 portfolio of revenues and importantly with the
9 introduction of streaming, an access model, not an
10 ownership model, and giving the consumer access to
11 content they weren't getting access to anyway from
12 piracy sites, do we start to see the fortunes of
13 music industry change in the United States and
14 globally. And to reiterate my written direct
15 rebuttal and testimony, we're now seeing half-year
16 results the U.S. shows in the positive -- most
17 positive, strongest growth signal since 1998.

18 Q. And so what was the net impact of
19 streaming on the recorded music industry?

20 A. The net impact of streaming was to
21 essentially bring to the music industry an ARPU
22 model, that is, average revenue per user. And this
23 is a term that was foreign language to many
24 rightsholders back when I joined the business in
25 2006.

1 So, previously, and for the best part of
2 five decades, we've been selling products to the
3 consumers. We hadn't been selling access. And by
4 moving to a streaming model, we were able to look at
5 the average revenue per user. And that's important
6 because the number of people buying product was
7 shrinking. The amount of money they were spending
8 on product was shrinking too. This is all prior to
9 the introduction of streaming. But by moving the
10 model to access, which is what the Napster
11 generation were used to anyway, we were able to grow
12 ARPU, not just for the existing music buyers but
13 also for the vast majority of the population, of the
14 adult on-line population, not just in the United
15 States but in every western market I've seen which
16 spent zero.

17 And this for me was the one driving force
18 which gave me belief in our model, which is we can
19 be concerned about what happens to music buyers, as
20 you mentioned move to access, but what we mustn't
21 forget is the majority of an adult on-line
22 population spends nothing on music. How are you
23 going to monetize them? So bringing the new
24 propositions to the market is important.

25 And just to reiterate a point I've

1 reminded many lawyers, and there are many lawyers in
2 this room, if the majority of an adult on-line
3 population spends zero on music, you cannot
4 cannibalize zero.

5 Q. Turning now, Mr. Page from recorded music
6 to musical works, have you had the occasion to study
7 trends in the musical works industry over the last
8 decade or so?

9 A. Yes, I have.

10 Q. And where in your testimony can we find
11 studies on trends in the musical works industry over
12 the last decade?

13 A. With respect to my written direct
14 rebuttal, we would be looking at pages -- we're
15 going to be looking at paragraphs 36 through to 42.

16 Q. And what are the studies that you speak
17 to in that portion of your written direct testimony
18 that analyze the music works industry over the last
19 decade or so?

20 A. Firstly, just an apology, I said written
21 direct rebuttal; I meant to say written direct
22 testimony. And so I was able to look at the
23 performance of the American performing rights
24 organizations over time. I was also able to look at
25 the performance of U.S. music publishers over time.

1 Finally, I conducted my own work to illustrate the
2 global value of music copyright, both in 2015, and
3 since submitting my written direct testimony, I've
4 updated that work for 2016 as well.

5 Q. Let's take each of those studies in turn.
6 With respect to the analysis you did of performing
7 rights organizations, where can we find that in your
8 testimony?

9 A. So specifically looking at my written
10 direct testimony, we are referring to paragraphs 39
11 and 40.

12 Q. And what data did you study and/or review
13 in analyzing the performance of the performing
14 rights industry?

15 A. So I used publicly available data that
16 both ASCAP and BMI report every year that they
17 finalize their gross collection figures.

18 Q. And what did your analysis show with
19 respect to your study of the historical performance
20 of performance rights organizations?

21 A. What it showed was a contrasting picture,
22 or you could call it contrasting fortunes, as we
23 discuss the pain that record labels saw
24 post-Napster, that of the decline in 1999, which
25 went through for a decade onwards, the picture for

1 the performing rights organizations is in stark
2 contrast to those declines. That is, just about
3 every year without fail, both ASCAP and BMI have
4 reported record collections and you would therefore
5 assume record distributions to their U.S. songwriter
6 and U.S. publisher members. Indeed, I could only
7 find three instances in the time period where record
8 collections were not reported.

9 Q. And specifically what data with respect
10 to those performing rights organizations did you
11 study?

12 A. So this is the data that's released, for
13 example, in music and copyright, where these figures
14 are reported, but also on their web site where they
15 report through their press release their annual
16 achievements.

17 Q. And who are the main performing rights
18 organizations in the U.S.?

19 A. So my understanding is you now have four,
20 but the two largest ones here are ASCAP and BMI.

21 Q. And did you study any ASCAP data?

22 A. Yes.

23 Q. And if I could turn your attention to
24 demonstrative 4. Can you tell us what this shows
25 about the revenue inputs from ASCAP data?

1 A. So, firstly, this is a pie chart, and I
2 want to give the Judges some time context here.
3 Record-breaking collections means a record-breaking
4 size of pie. This pie has gotten bigger over the
5 past decade and a half where most other media
6 formats, not just music, have seen pain. But this
7 also presents a portfolio of revenues that ASCAP
8 collects. Now, this is their definitions. I want
9 to be clear here. That their definitions are not
10 entirely transferable to other collecting societies
11 in America, as well as other global institutions as
12 well.

13 But you can see a breakdown of revenues.
14 And in this chart, though, I'm highlighting new
15 media, which made up 5.5 percent of the pie. And I
16 wish to also report from my written direct testimony
17 and what I -- what I say here is that new media,
18 which Spotify contributed towards, the biggest rise
19 in all of ASCAP's domestic income sources were total
20 collections, increasing 36.3 percent to 56.1 million
21 from 41 million in 2014.

22 So what we're learning here is firstly
23 ASCAP had been reporting record collections for much
24 of the past decade and a half. Secondly, they have
25 a broad portfolio of revenues in contrast to the

1 record labels, if you remember the 1999 chart, where
2 there's just one form of revenue. And, thirdly, new
3 media captures Spotify's contribution. One of the
4 reasons why ASCAP was able to report record
5 collections was new media was growing. And one of
6 the reasons new media was growing was that Spotify
7 was driving that growth.

8 JUDGE STRICKLER: Do you know who else is
9 included in new media, not only just Spotify but
10 what other types of media? Particularly, does it
11 include non-interactive as well?

12 THE WITNESS: I don't. I'm actually
13 quoting from their press release, but just thinking
14 this one through, other on-demand streaming services
15 would be in there, but you may find other forms of
16 exploitation, such as ringtones can be classified as
17 new media as well. And -- but I apologize I
18 couldn't give you a clearer breakdown based on their
19 own disclosure as to what's consistent in there.
20 They do specifically state Spotify is classified in
21 that segment.

22 JUDGE STRICKLER: Thank you.

23 BY MR. MANCINI:

24 Q. And, Mr. Page, did you also have occasion
25 to study BMI data about the various inputs to their

1 collections?

2 A. Yes, I did.

3 Q. Let me turn your attention to
4 Demonstrative Number 5. Can you tell us what you
5 learned by analyzing BMI data about the various
6 inputs to their revenue?

7 A. So, again, I want to reiterate what we
8 learned about ASCAP, record -- record-breaking
9 collections from a record-breaking size of pie and,
10 to reiterate, success or gains where most other
11 media formats saw pains.

12 And we can see again for the Judges'
13 benefit a different set of classifications, which is
14 why you can't necessarily compare like with like
15 here. You have broadcast media, international
16 collections, general licensing, and then digital.
17 And then to quote from my written direct testimony
18 here, which is in paragraph 40, what I say there is
19 total collections increased 4.6 percent in the 12
20 months to end of June, to over 1 billion in the 12
21 months. Distribution grew 6.2 percent, digital
22 revenues, which Spotify contributed towards, grew
23 50.5 percent.

24 So a very similar story, record-breaking
25 collections, over a billion dollars coming from one

1 of the two largest American PROs, and one of the
2 reasons it's record breaking is digital. And the
3 reason why digital is growing is Spotify.

4 JUDGE STRICKLER: And, again, you --
5 given that you're relying on BMI's classifications,
6 are you able to subclassify within digital?

7 THE WITNESS: No, I am not, but I want to
8 stress for the Judges' benefit that you may have
9 different terms of digital. So, for example, the
10 revenues that come from Pandora could be in one of
11 those segments for BMI but in a different segment
12 for ASCAP. I apologize because I don't know how
13 they would classify those revenues. They don't make
14 that public.

15 JUDGE STRICKLER: Do you have any
16 knowledge as to whether digital also includes
17 digital downloads in this Demonstrative 5?

18 THE WITNESS: In this example, I would
19 argue without certainty that it is because --

20 JUDGE STRICKLER: That it is inclusive of
21 digital downloads?

22 THE WITNESS: Yes. And I simply say that
23 through working at the PRS and being familiar with
24 these terms. I can't see how you could file
25 downloads in general licensing, which is licensing

1 high streets, hair dressers, restaurants, even this
2 library; broadcast media would be television
3 revenues and radio revenues, and international would
4 be overseas income. So I would imagine that
5 download is digital as well, which captures a point
6 which is that streaming gains are offsetting
7 downloads pain.

8 JUDGE STRICKLER: Thank you.

9 BY MR. MANCINI:

10 Q. And, Mr. Page, did you also have occasion
11 to study music publishing revenues in the last
12 decade?

13 A. Yes, I did.

14 Q. And what specifically did you study with
15 respect to music publishing revenues?

16 A. So I refer to paragraph 37 of my written
17 direct testimony and -- which is a bar chart which
18 was sourced from Enders Analysis, a respected
19 consultancy.

20 Q. Let me ask you to turn your attention to
21 the slide before you, Demonstrative Number 6, is
22 this a copy of the chart you're referring to from
23 your direct testimony?

24 A. Yes, it is.

25 Q. And what does this chart tell us?

1 A. So this chart plots U.S. music publishing
2 revenues or, for the Judges' benefit, I would call
3 this turnover and -- from 2010 out to a forecast for
4 2019. And what we can see here is revenues are
5 broken down into three categories, performance,
6 mechanical, and synchronization.

7 And I want to reiterate for the Judges'
8 benefit that this is where classifications can get a
9 little bit confusing. You're seeing publishers use
10 one term and collecting societies use another, yet
11 collecting societies pass a lot of money through to
12 publishers. And -- but what I think we can take
13 from this chart is at best what we are seeing here
14 is stability in revenues and then growth going
15 forward.

16 But we can also see interest in the
17 breakdown of revenues. And mechanical revenues in
18 the copyright holders' arguments that I read through
19 were seen as being in trouble, in decline,
20 disappearing. But it's quite interesting to
21 observe, firstly, sustained growth in music
22 publishing turnover but, secondly, the blue segment
23 of this chart doesn't appear to be shrinking that
24 fast. I think this captures an important point,
25 which is there's more to mechanical revenues than

1 just downloads and streaming. There are many forms
2 of mechanical collections that publishers --
3 publishers gain beyond that as well.

4 So to reiterate, what we saw in our first
5 and second demonstratives on this issue was the
6 contribution Spotify is making to the performing
7 right, that is, paying the PROs who then pay
8 publishers and songwriters, a point that has to be
9 made explicitly clear. And then, secondly, we can
10 take a look at the turnover of U.S. music publishing
11 revenues and we can see the contribution we're
12 making to the mechanical right. And to reiterate,
13 the publishing business looks to be in good health,
14 and mechanical revenues do not look to be in the
15 same level of decline that was portrayed in the
16 Copyright Holders' written direct testimonies.

17 Q. And finally, Mr. Page, I believe you
18 testified a few moments ago about a third study you
19 performed yourself that addressed the total musical
20 works revenues in the last decade.

21 A. Yes.

22 Q. And what was that study?

23 A. This study was published in the on-line
24 music journals and blog Music Business Worldwide,
25 and we called it "The Global Value of Music

1 Copyright."

2 Q. And who performed this study?

3 A. I performed this study.

4 Q. And what data did you analyze in
5 performing this study?

6 A. I essentially had three pieces of a very,
7 very complicated jigsaw. And I want to stress for
8 the Judges' benefit this does get a little bit
9 complicated, but I'll take it from a very, very high
10 level. We have the IFPI's recording industry in
11 numbers, which is, roughly speaking, a 15 billion
12 dollar valuation of recorded music revenues. We
13 have the SESAC global music report, which I should
14 address is reported in euros, we convert to dollars,
15 which captures the total value of collecting
16 societies. And the third piece of the puzzle is
17 music publisher turnover. Not all music publishing
18 revenue comes from the collecting societies. They
19 also have synchronization and grant rights they
20 collect themselves.

21 So to get to a global value of musical
22 copyright for the first time in the industry's
23 history, and it really was a bit of a landmark
24 achievement to get this work finished, you have to
25 have all three pieces of the jigsaw together, then

1 cancel out the double counting that exists between
2 the two.

3 For example, if you look back to IFPI
4 data, those physical revenues that we report in the
5 IFPI contains mechanical copyright collections which
6 are passed on to publishers. So you have double
7 counting there.

8 So I was able to merge all three pieces
9 of the jigsaw together, remove the double counting,
10 and for the first time ever, represent the global
11 value of musical copyright.

12 Q. And with respect to those three data
13 inputs, are they publicly available?

14 A. Yes.

15 Q. And were they voluminous?

16 A. Yes.

17 Q. And you summarize them in this report?

18 A. So the data was the IFPI's recorded
19 industry in numbers. That report is now termed
20 Global Music Report. And the SESAC report is
21 published on-line on the SESAC web site. And,
22 thirdly, the publisher numbers came from a media
23 study called "Music Publishing in Crossroads," where
24 they provide a global turnover estimate for music
25 publishing.

1 JUDGE STRICKLER: So this report is -- is
2 about global revenue, so that means worldwide
3 revenue?

4 THE WITNESS: Correct.

5 JUDGE STRICKLER: And so each entity that
6 had -- in each country where entities had to pay or
7 were able to receive revenue, were subject to its
8 own particular structure, legal structure, with
9 regard to the -- to the payment of rates, right?

10 THE WITNESS: Correct.

11 JUDGE STRICKLER: Is that addressed in
12 this report?

13 THE WITNESS: Yes. So if we think about
14 some of the anomalies that happened in the global
15 copyright marketplace, and particularly here in
16 America, you have to adapt to the fact that not all
17 rights are the same, not all rights are exploited or
18 licensed in the same way.

19 And a classic example is FM radio in
20 America where ASCAP, BMI, SESAC, and presumably GMR
21 will collect moneys from radio stations, but record
22 labels do not collect money from FM and AM radio.
23 Indeed, the three countries in the world which don't
24 license AM and FM radio just now are North Korea,
25 Zimbabwe, and the United States of America. That

1 anomaly is captured in this work. A second example,
2 just to remind the Judges in this courtroom here --

3 JUDGE STRICKLER: Can I just interrupt
4 you so I don't miss the thread?

5 THE WITNESS: Sure.

6 JUDGE STRICKLER: Was that anomaly
7 captured in this?

8 THE WITNESS: Yes, yes.

9 JUDGE STRICKLER: And how did -- how did
10 you capture it?

11 THE WITNESS: So the SESAC report talks
12 about five regions. So with SESAC, you're able to
13 look at collections for North America, for Europe,
14 for Africa, and for Asia separately.

15 A second important anomaly here is
16 international reciprocity. So American collecting
17 societies, as we saw in the previous pie chart, are
18 collecting lots of money from overseas, lots of
19 money. There are three exporters of music in the
20 world, the United States, the United Kingdom, and,
21 bizarrely, Sweden. And these countries generate
22 revenues from the export of their music.

23 And that was also canceled out in double
24 counting adjustments for this work as well.

25 JUDGE STRICKLER: So these are cash flow

1 revenues; you didn't make any implicit adjustments
2 for the value of music because -- and attribute
3 revenues to terrestrial radio, for example?

4 THE WITNESS: No. I just -- I took a
5 very top --

6 JUDGE STRICKLER: For sound recordings?

7 THE WITNESS: Yeah, I took a very top
8 line view of turnover, that is, how much money came
9 in the factory gate as opposed to making assumptions
10 about the treatments of rights. So it's a very sort
11 of cash-driven model.

12 JUDGE STRICKLER: Thank you.

13 THE WITNESS: And I can also add there
14 the international reciprocity point is very
15 important, given that you last met five years ago in
16 these particular CRB proceedings, which is the
17 American PROs would have been collecting the
18 benefits of Spotify long before 2012 as the Swedish
19 and Norwegian and Dutch collecting societies passed
20 those revenues through to American publishers and
21 songwriters. It's an important consideration when
22 you're trying to get to a global value.

23 BY MR. MANCINI:

24 Q. And just to reiterate, Mr. Page, what
25 were the conclusions you reached about the overall

1 global value of the music copyright industry?

2 A. So the conclusions I reached were, if I
3 may offer, driven by annoyance I had with how people
4 were looking at the music market, that is, when
5 quarterly earnings for value were published,
6 everyone was looking at Spotify's impact on
7 Universal Record Company. Nobody that I met of all
8 the analysts were looking at Spotify's impact on
9 Universal Music Publishing Company.

10 By merging the two together, we can
11 appreciate the true value of copyright, not just
12 some. And by doing so, we can appreciate Spotify's
13 true contribution to the industry, labels, PROs, and
14 publishers, not just some.

15 And to get to a figure of 25 billion is,
16 explicitly obvious, much bigger than 15. So the
17 value of copyright globally is worth more than what
18 previously was perceived as a 15 billion dollar pie.

19 JUDGE STRICKLER: I have another question
20 for you.

21 THE WITNESS: Sure.

22 JUDGE STRICKLER: With regard to the same
23 demonstrative 7. Since you -- you subtracted
24 mechanicals from physical and digital music
25 revenues, do mechanicals show up as your item for

1 IFPI performance rights or does it show up somewhere
2 else?

3 THE WITNESS: So in this demonstrative,
4 it's captured in the value of publishers and PROs.

5 JUDGE STRICKLER: So which part -- which
6 part of the pie chart?

7 THE WITNESS: The global musical works,
8 which is the blue section of the pie chart, will
9 capture the mechanicals which had been transferred
10 from IFPI yearbook into that blue segment. So I'll
11 give you a very simple example. If the global
12 recorded music industry has reported as being worth
13 15 billion dollars, to use a round number, around
14 about 1 and a half billion belongs to publishers
15 through pass-through, that is, for all physical
16 revenues, mechanicals are captured in the IFPI
17 yearbook, and for certain countries, only certain
18 countries, digital revenues, that being download
19 revenues, will also include mechanical. United
20 States being one; Mexico, for a period, was another;
21 India was another one as well.

22 So that's where you have your double
23 counting adjustment.

24 JUDGE STRICKLER: Thank you.

25 THE WITNESS: It's very important for the

1 clarity of who gets what from the business.

2 BY MR. MANCINI:

3 Q. And, Mr. Page, a copy of this chart is
4 reproduced on page 15, paragraph 36 of your written
5 direct testimony, is it not?

6 A. It is.

7 MR. MANCINI: Your Honors, at this point,
8 we're going to be discussing confidential Spotify
9 data, so we'd like to move to restricted session.

10 JUDGE BARNETT: Anyone who is in the
11 courtroom who is not privy to privileged or
12 confidential information, if you would please wait
13 outside.

14 MR. MANCINI: Your Honor, if I may, I --
15 I believe an agreement was reached with Copyright
16 Owners, Spotify's in-house lawyers who are here and
17 are privy to this information may remain.

18 MR. SEMEL: We have no objection.

19 JUDGE BARNETT: Certainly. As long as
20 this is only confidential information from Spotify
21 and not from other parties.

22 MR. MANCINI: Yes, it is, indeed, Your
23 Honor. Thank you.

24 (Whereupon, the trial proceeded in
25 confidential session.)

1 O P E N S E S S I O N

2 MR. SEMEL: Thank you. If all goes well,
3 it will stay that way throughout our time.

4 JUDGE BARNETT: Thank you.

5 BY MR. SEMEL:

6 Q. Mr. Page, you have been working at
7 Spotify since 2012; is that right?

8 A. That is correct.

9 Q. And you have also been granted stock
10 options in the company, correct?

11 A. Depending on how you define "granted,"
12 that is to a degree correct.

13 Q. In your written direct testimony, you
14 discuss reports concerning piracy trends in a number
15 of foreign countries, including Sweden and Denmark
16 and Norway, correct?

17 A. That is correct.

18 Q. And, in fact, as I think you touched on
19 briefly before, foreign countries have different
20 laws and enforcement mechanisms than the United
21 States does, correct?

22 A. That is correct.

23 Q. And you are not an expert in those laws,
24 correct?

25 A. In every country that I study try and get

1 a good familiarity from the legal context in those
2 particular countries.

3 Q. And your written testimony includes no
4 analysis of the effects of national legal or
5 enforcement schemes on piracy trends, correct?

6 A. In my written direct testimony, I don't
7 refer to legal schemes, but in the report Adventures
8 in the Netherlands, I do refer to a takedown of The
9 Pirate Bay web site, which happened during that
10 period.

11 Q. Right. And -- but your testimony doesn't
12 discuss whether -- what the effects of national
13 legal schemes are on piracy trends, correct?

14 A. That is correct.

15 Q. And your written testimony does not even
16 claim that piracy trends are, in fact, the same
17 across jurisdictions, correct?

18 A. It would be -- it would be unrealistic to
19 assume that could even possibly happen.

20 Q. And your written testimony does not
21 provide any methodology for translating a report of
22 a piracy trend in one jurisdiction to another
23 jurisdiction, correct?

24 A. No, that is not correct. With respect to
25 the Adventures in Netherlands study, I draw your

1 attention to chapter 4, indeed one of the Judges
2 actually referred to this earlier, where we do a
3 comparison with Italy, which is a like-for-like
4 comparison in terms of counting unique IP addresses
5 involved in at least one act of BitTorrent music
6 piracy, but you have to be very clear on the
7 definition here, to make sure it's a good
8 comparative economic example.

9 And I also refer in my written direct
10 testimony to the situation in Australia where the
11 legal setting was explored in the presentation.
12 And, again, due to the acquisition of my data source
13 company, MusicMetric, by Apple, we weren't able to
14 publish that work, but the legal situation was the
15 real driver of that particular work; namely, what
16 happens when the music industry offers an access
17 model to compete with piracy, but the TV and film
18 industries do not.

19 Q. Okay. So to be clear then, your written
20 testimony does not provide any methodology for
21 translating reports of piracy trends in other
22 jurisdictions to the United States, correct?

23 A. Correct, only insofar as I wasn't able to
24 use MusicMetric data to do an equivalent American
25 study at the time, but I do cite evidence of a

1 downward decline in piracy levels in America within
2 my written direct testimony.

3 Q. Are you referring to the discussion of --
4 in paragraph 23 on page 9 of your written direct
5 testimony?

6 A. Do you want to cite a sentence from that
7 paragraph?

8 Q. What's that?

9 A. For need of speed, do you want to cite a
10 sentence from that paragraph?

11 Q. It's -- this is the Sandvine report.

12 A. Yeah, that is correct.

13 Q. Okay. And that's a study of North
14 America, correct?

15 A. That's a study of North America, although
16 my understanding was that the press release referred
17 to United States within the actual press statement.

18 Q. And do you know if it was North America
19 including Mexico?

20 A. No, I do not.

21 Q. Do you know if it included the Caribbean?

22 A. No, I do not.

23 Q. And you didn't do this study or
24 participate in the research, correct?

25 A. That is correct.

1 Q. And you do not possess the data
2 underlying the study, correct?

3 A. That is correct, but if I could add, it
4 struck me as interesting that for a subject that
5 matters so much to me, I was surprised there was so
6 little research on piracy within the United States.
7 So to be aware of Sandvine had attempted to try and
8 measure something that is very, very hard to measure
9 was interesting.

10 What really struck me was their press
11 comment where they actually cited Spotify by name in
12 explaining why piracy rates in America were falling.

13 Q. And you, yourself, are very interested in
14 piracy, correct?

15 A. Correct.

16 Q. And you, yourself have done some research
17 concerning piracy trends, correct?

18 A. That is correct.

19 Q. But you have never done any research
20 concerning piracy in the United States, correct?
21 That's just a yes or no.

22 A. Yes, insofar I have done global work in
23 piracy which has included the United States, but I
24 haven't isolated the United States as a specific
25 country.

1 Q. Okay. And you are unaware of any
2 research undertaken by Spotify -- by Spotify on
3 piracy in the United States specifically?

4 A. Not to the best of my knowledge, I can't
5 remember Spotify conducting that work.

6 Q. Although Spotify -- the U.S. is Spotify's
7 largest market as an individual country, correct?

8 A. In absolute terms, but we also have to
9 remember a per capita comparison could yield
10 different results.

11 Q. You refer, to as I mentioned, some
12 studies in other countries, including on page 4 of
13 your direct report, you refer to certain studies or,
14 I don't know if I would call them studies, you refer
15 to certain documents that discuss piracy in Sweden,
16 Denmark, and Norway, correct?

17 A. Correct.

18 Q. You did not participate in these studies,
19 correct?

20 A. No. These are studies in large part
21 conducted by the rightsholders themselves. These
22 are the trade bodies for Sweden, Denmark, and Norway
23 that were publishing their own work to which we had
24 no involvement at all.

25 Q. And you don't possess the data underlying

1 any of these reports, correct?

2 A. That is correct.

3 Q. You, on page -- sorry -- on page 8 of
4 your report, you -- paragraph 20, you begin
5 discussion of some research you did in the
6 Australian music market, correct?

7 A. Correct.

8 Q. You say Spotify but, in fact, you were
9 involved in this directly, right?

10 A. Correct. The similar arrangement that I
11 did with MusicMetric, in that we commissioned them
12 to perform network measurement, again taking all
13 care and precautions with regards to privacy, and
14 how we could commission the work. And we had
15 experts ensure that we were vetting the data to
16 which I wish to apologize again that we weren't able
17 to publish this work due to the acquisition by
18 Apple.

19 Q. Right. And, in fact, you don't have the
20 data underlying -- so the chart at the top of page
21 9, that is the chart that goes along with this
22 Australian survey, correct?

23 A. That is correct.

24 Q. And you don't have the data that
25 underlies that chart, correct?

1 A. We have that data.

2 Q. I'm sorry?

3 A. We have that data.

4 Q. Well, you did not produce that data in
5 this proceeding, correct?

6 A. That is correct.

7 Q. And in your deposition you testified that
8 you did not possess it, correct?

9 A. Well, we -- forgive me if I misremembered
10 our deposition, but the data is held by ourselves,
11 but I just wish to clarify that the acquisition of
12 MusicMetric by Apple happened several weeks after
13 this work was presented.

14 So there may be legal issues in terms of
15 how that data is dealt with.

16 Q. Does MusicMetric possess the data?

17 A. They would possess that data.

18 Q. And so by -- by "we," you meant sort of
19 you and MusicMetric?

20 A. Yeah, yeah.

21 Q. All right.

22 A. So we worked around how we were going to
23 perform network measurement, which in itself is a
24 complex issue, and then when we produced the data,
25 had the data inspect, verified results. So, for

1 example, they would present this slide. I would
2 present the data on the slide. If I was
3 satisfactory with the data and the slide itself,
4 that would go into the presentation. And this was
5 one of three exhibits that we presented publicly in
6 what was a televised conference in Australia in the
7 autumn of 2014.

8 Q. But -- okay. But to be clear though, you
9 yourself, as opposed to MusicMetric, which is now
10 owned by Apple, don't possess the data underlying
11 this chart, correct?

12 A. I believe we do have that data saved. I
13 just wish to reiterate whether there may be legal
14 implications in terms of releasing data which has
15 been acquired by another company. But from my
16 perspective, I have no problems with that data. If
17 you wish to inspect it or if you wish to see the
18 full presentation, I'm more than happy to.

19 Q. Well, it was not produced in this case,
20 though, correct?

21 A. Yeah, it was not produced not just in
22 this case study but in this one press release on
23 TorrentFreak, which was the only way of exhibiting
24 this work.

25 Q. And this chart, in fact, the one you have

1 here, was actually cut and pasted from a web site,
2 correct?

3 A. That is correct, but it is the same chart
4 that was represented during the keynote presentation
5 in Brisbane, Australia.

6 Q. And the web site is TorrentFreak.com,
7 correct?

8 A. Correct.

9 Q. And if we look at this chart at the top
10 of page 9, that top line, that is -- represents
11 individual BitTorrent files; is that right?

12 A. Yes. The -- the blue line on the top
13 line there is unique instances of a music BitTorrent
14 file being downloaded from the network.

15 Q. Okay. And BitTorrent is a piracy site,
16 correct?

17 A. BitTorrent, I would call it more like a
18 protocol. It encompasses many piracy sites and also
19 driven by many search engines. It's worth thinking
20 about The Pirate Bay which, again, came from Sweden
21 as a signpost to where BitTorrent files are hosted.

22 Q. But BitTorrent, of course is not the only
23 method by which people pirate; it's just one among a
24 number, correct?

25 A. That is correct.

1 Q. And if we look at this line, am I right
2 that you've added those -- the red pop callouts and
3 the yellow lines to this chart from TorrentFreak?

4 A. Correct.

5 Q. And the -- the one on the left basically
6 indicates that you've chosen a timeline that begins
7 when Spotify launched in Australia, correct?

8 A. That is correct.

9 Q. So this is in effect to show what
10 happened after you launched in Australia?

11 A. That is correct.

12 Q. And the blue line at the top, again, we
13 don't have the underlying data so we can't get
14 particularly granular -- granular, so I'm just
15 eyeballing this, but the blue line ends the chart --
16 is it around February or March of 2014?

17 A. March 2014 --

18 Q. March. Okay.

19 A. -- is when the study concluded.

20 Q. So the blue line, which is the -- kind of
21 level of files downloaded, is that exactly the same
22 point as it is at the beginning of the chart in --
23 when Spotify launches, correct?

24 A. Correct. If I could ask would it help if
25 I explained the blue line and the green line in a

1 little bit more detail?

2 Q. I think you could probably do that on
3 redirect if your counsel feels that it's important
4 to flesh out.

5 And you've chosen to highlight two yellow
6 bands in the middle which correspond to, I think
7 what you term, holiday periods, correct?

8 A. Well, I refer to them as the festive
9 period or the Christmas release schedule. That is
10 to stress that in most music markets, with respect
11 to ownership, that of CD sales or downloads, the
12 record industry and the publishers alike will see
13 around about 35 to 40 percent of their business
14 happen in the fourth quarter of a calendar year.

15 So this is a point where release schedule
16 is strongest, where record labels and publishers
17 will put out their strongest releases to maximize
18 demand during that period.

19 So looking at this from what was the
20 first time ever we've done time trend analytics of
21 piracy, I wanted to pick the release schedule
22 Christmas festive period as my control for measuring
23 the trend.

24 Q. But, again, you did not actually compare
25 the release schedule for 2012 to the release

1 schedule of 2013, correct?

2 A. So we had anecdotally checked to make
3 sure the release schedules were equally strong
4 during these periods. And then since our
5 deposition, I've gone back and checked again to
6 ensure there is no self-contradictory evidence there
7 which would suggest a weaker Christmas reschedule in
8 the 2013-'14 period than in the 2012-'13 period.

9 Q. And you have not produced any of the data
10 that you may have relied upon in reaching that
11 understanding, correct?

12 A. I don't have access to record industry
13 sales data in Australia. If this was in the U.K. or
14 Holland or United States, that would be possible.
15 But if I can just offer one very important example
16 of an artist who released in the Christmas release
17 schedule 2013, who we didn't even know about in
18 2012, is the New Zealand artist Lorde, spelled
19 L-o-r-d-e. And that for me is a perfect example of
20 an artist who is a real Spotify success story who
21 has released in that Christmas release schedule and
22 did incredibly well on Spotify, incredibly well with
23 sales, but did not see a significant impact on
24 piracy.

25 And that helps reiterate firstly what we

1 learned earlier from the Netherlands study, which is
2 those artist case studies of the impact on sales,
3 streams, and piracy, but secondly Spotify is a
4 discovery tool. And in the past, I previously
5 published on-line articles showing how Sean Parker's
6 addition of Lorde to his playlist led to the viral
7 growth of the artist on our service.

8 JUDGE STRICKLER: Question for you,
9 Mr. Page, excuse me. In paragraph 20 of your
10 written direct report, you -- you tag the research
11 that was done that's shown in this demonstrative in
12 your -- at the top and your exhibit or chart --
13 chart that's on page 9. It was in 2014, and you say
14 Spotify conducted research on the Australian music
15 market.

16 THE WITNESS: Correct.

17 JUDGE STRICKLER: What was the purpose of
18 the -- of this research?

19 THE WITNESS: So I should also expand on
20 the word "music." The actual origins of the study,
21 of the presentation that was televised, of the
22 interview that we did with Malcolm Turnbull at the
23 time was to look at music compared to TV and film.
24 And this, to your other question, brings in the
25 legal context.

1 In Australia at that point, there was
2 debate about fair use, and there was also debate
3 about ISP liability for copyright infringement. So
4 there's a very interesting legal backdrop to this
5 study.

6 What was clear to me was that music was
7 operating with carrots, lots of carrots, compared to
8 sticks. Pandora is in Australia. There are local
9 services in Australia that Americans in this
10 courtroom would not be familiar with. And Spotify
11 got into Australia and we got in there at a fair
12 price. I think this is an important point.

13 And iTunes download album could cost 23
14 to 24 Australian dollars, and we launched at \$11.99.
15 So a superior alternative to piracy at a fair price.

16 JUDGE STRICKLER: Okay. But -- but,
17 again, my basic question is -- is a little simpler
18 than that. Why did you conduct the research?

19 THE WITNESS: Because the TV and film
20 industries were, in my view, behaving in a way that
21 created piracy. They were pricing prohibitively.
22 Foxtail accounts were incredibly expensive. And
23 this was very important to the nature of the study.
24 They were windowing content by two to three months.

25 JUDGE STRICKLER: Well, my point though

1 is -- is a simple -- or my question is a simpler
2 question. You say Spotify conducted research and
3 Spotify utilized its own resources to do the
4 research. What was the reason, what was the
5 economic or financial benefit for Spotify in doing
6 such a -- such research?

7 THE WITNESS: Just like with Netherlands,
8 the transferable lesson is what can Spotify do in a
9 market where copyright infringement wasn't actually
10 unlawful? The transferable lesson I want to take
11 away from this was what happens when Spotify offers
12 an alternative to piracy but the TV and film
13 companies are behaving in a way that creates piracy?

14 Now, remember, cross-usage is very
15 important here. If I use KickAss Torrents to get
16 Homelands, to get Game of Thrones, to get my
17 favorite TV content, I could equally use KickAss
18 Torrents to get music as well.

19 JUDGE STRICKLER: Did Spotify utilize
20 this research to -- to provide product or price
21 product in Australia or any other market?

22 THE WITNESS: When you say "price
23 product," can you clarify what that means?

24 JUDGE STRICKLER: Price -- price of
25 subscription services or -- or any other services

1 that it was offering, whether it was ad supported or
2 otherwise?

3 THE WITNESS: I think it underlines the
4 point about the importance of the price that we
5 launched at, which was 11 Aussie dollars 99. Had we
6 gone into a higher price, we may -- we may not have
7 had the same level of scale, and that would
8 therefore mean we'd never have an impact on piracy,
9 and importantly if you look back at 2015 recording
10 numbers yearbook, the Australia industry wouldn't
11 recover. To reiterate, Australia industry is now
12 growing, and from this chart, we can see piracy is
13 falling.

14 JUDGE STRICKLER: So -- go ahead.

15 JUDGE FEDER: Let's try to get at this
16 maybe a slightly different way. Was there a
17 specific business purpose for conducting this study
18 or was this, shall we say, Spotify's contribution to
19 a public policy debate in Australia?

20 THE WITNESS: I saw it as an objective
21 contribution to the debate around public policy at
22 the time in that what we learned from the
23 Netherlands, which was quite interesting at this
24 point in time which was not only was the Netherlands
25 first success story outside of Scandinavia for

1 Spotify but equally for Netflix as well, a legal
2 alternative to piracy of TV and film content. And
3 it's interesting to see Australia now has Netflix.
4 It didn't have in 2014. But the important point for
5 me, the A-B experiment which you can tease out of
6 Australia that you can't tease out of anywhere else
7 is the fact that the TV and film industries were
8 windowing content by two to three months -- I had
9 finished Homelands before my friends in Australia
10 started it -- and also pricing at prohibitive rates.

11 So that was the transferable lesson I
12 wanted to get out, which is not all copyright
13 holders behave the same way. Musical rightsholders,
14 traditional music services have worked hard to
15 reduce piracy with carrots, but when TV and film
16 don't, it creates an asymmetric effect. And that's
17 really what I wanted to explore.

18 JUDGE STRICKLER: So this work was done
19 for public policy -- to explore public policy in
20 Australia as opposed to any particular economic
21 benefit for Spotify per se?

22 THE WITNESS: I would leave -- it was for
23 the benefit of public policy, and I would reiterate
24 to see Netflix launch in Australia at a fair
25 reasonable price is a sign that hopefully it had a

1 good impact on this. We learned during the study
2 that there was more piracy of Game of Thrones in
3 Australia than there was for music combined. That's
4 a problem for Australia. And it's consumption of
5 content on-line that's going unmonetized, the same
6 problem that Daniel Ek was looking at in 2006, the
7 same problem I was looking the when I moved down
8 from Scotland to London in 2006.

9 JUDGE STRICKLER: Did you -- did you use
10 this research to price streaming services in
11 Australia or anywhere else after the research was
12 concluded?

13 THE WITNESS: I've used this research to
14 defend a fair price for music, and maybe this
15 alludes to earlier discussions as well, which is the
16 risk of raising prices in a country like Australia
17 which are used to what they would all rip-off
18 prices, not only risks losing demand under the curve
19 but potentially a backlash from the consumer.

20 JUDGE STRICKLER: When you say you use
21 this research to defend pricing, defend it against
22 what?

23 THE WITNESS: Against -- you have what
24 you have and our company in the space of ten years
25 now has 50 million people paying a monthly fee for

1 something that was voluntary to pay. That is an
2 incredible achievement for a Swedish tech company
3 which many people in this room wouldn't have heard
4 of five years prior.

5 JUDGE STRICKLER: Maybe my question was
6 poor.

7 THE WITNESS: What happens if you lose
8 them?

9 JUDGE STRICKLER: My question may be
10 poor. Defending it in what form?

11 THE WITNESS: The importance of having a
12 fair price --

13 JUDGE STRICKLER: No, in what forum?

14 THE WITNESS: Oh, just within internal
15 discussions within our company around pricing
16 issues.

17 JUDGE STRICKLER: Thank you.

18 BY MR. SEMEL:

19 Q. And I believe you mentioned that you --
20 you presented this, it was never published, but you
21 did present it; was it at a festival or a --

22 A. The name of the conference was the Big
23 Sound Conference in Brisbane, Australia.

24 Q. Okay.

25 A. And it happened in September of 2014, two

1 days before the Scottish referendum.

2 Q. And, in fact, Spotify also gains a public
3 relations benefit from being seen as a company that
4 has positive effects on piracy, correct?

5 A. I don't think that is restricted to just
6 Spotify. I think it's applause of the entire music
7 industry that we are now moving forward to reducing
8 piracy and increasing revenues. And, indeed, I
9 would argue that as a point of irony, for the past
10 15 years, newspapers have been laughing at the music
11 industry and now they're constantly asking me to
12 attend their management off-sites. They want to
13 learn from how we did it.

14 Q. If we turn to page 21 of your written
15 direct testimony, you have a chart at the top of the
16 page, and I just want to clarify. Oh, I'm sorry,
17 I've been passed a note. I don't know that I
18 clarified in our last thing.

19 You did not produce to us the -- the data
20 underlying your survey of the Australian release
21 schedule, correct?

22 A. No, but --

23 Q. And -- and that was also not anything
24 that you did prior to the creation of your written
25 direct testimony, correct?

1 A. Correct.

2 Q. Okay.

3 JUDGE STRICKLER: Counsel, not that it's
4 dispositive of anything necessarily, but was the
5 underlying data requested in discovery?

6 MR. SEMEL: We certainly requested data
7 concerning piracy and all the -- the -- I can give
8 you more specific requests, but, yes, absolutely
9 data was requested concerning piracy. So if there
10 was a study done of piracy, I think it definitely
11 would have fallen under that request, any
12 documentation done concerning such a study.

13 JUDGE STRICKLER: And, again, not that
14 it's necessarily dispositive of anything, but when
15 -- when underlying data with regard to this study or
16 the Netherlands study was -- or you believe was
17 requested through a more omnibus request, was there
18 any motion to compel production?

19 MR. SEMEL: So in this case, we were
20 actually told in the deposition that there was no
21 underlying data, that he was not in possession of
22 it. So we didn't make the motion to compel because
23 there was apparently nothing to get.

24 This new information is something I just
25 found out about five minutes ago.

1 JUDGE STRICKLER: Thank you.

2 THE WITNESS: If I can just quickly add,
3 in both instances --

4 JUDGE STRICKLER: Wait. Maybe -- maybe
5 if you get a question on redirect from your counsel.

6 THE WITNESS: Absolutely. It's just that
7 I'm willing to provide whatever is requested.

8 JUDGE STRICKLER: Let's wait -- let's
9 wait for an appropriate question.

10 THE WITNESS: Sure.

11 BY MR. SEMEL:

12 Q. So getting to this chart at the top of
13 21, I just want to clarify, this is not a table that
14 you created, correct?

15 A. That is correct.

16 Q. And you did not have any hand in the
17 gathering or the crunching, shall we say, of the
18 data that went into the table, correct?

19 A. That is correct.

20 Q. And you do not know who did, correct?

21 A. Correct.

22 Q. And you got this from a web site that
23 Spotify put out, correct?

24 A. Yeah. This is the Spotify for artists
25 web site, which was launched in late 2013.

1 Q. Right.

2 A. And these are U.S.-specific figures.

3 Q. Right. So just to be clear, you have no
4 idea where these numbers came from specifically,
5 correct? Other than the fact that they came from a
6 web page?

7 A. That is correct.

8 Q. If we turn to page 13 of your direct
9 testimony, we have another chart here. This is -- I
10 want to be clear. First of all, this is a chart of
11 Canada album sales, correct?

12 A. Correct. This is digital album sales.
13 To reiterate, digital album sales in Canada in 2012
14 to 2015 Q-1. And the source of the data is Nielsen
15 SoundScan, the authoritative source on Canadian
16 recorded music industry trends.

17 Q. And am I correct that in your written
18 direct testimony, there is no analysis discussing
19 how Canadian album sales are relevant to trends in
20 the United States, correct?

21 A. That is incorrect. Indeed, if I can
22 highlight paragraph 30 of the direct testimony, I go
23 into extreme depth to explain why this is incredibly
24 relevant to this particular case.

25 JUDGE BARNETT: You need to wait for a

1 question, Mr. Page.

2 BY MR. SEMEL:

3 Q. Okay. Outside of paragraph 30, there is
4 no analysis to explain how Canadian album sales are
5 relevant to the United States, correct?

6 A. I wish to cite further paragraphs, and
7 paragraphs 29 and paragraphs 31 also touch on the
8 relevance of this particular Canadian case study to
9 the debate about streaming.

10 Q. And did you create this chart?

11 A. Yes, I did it in conjunction with Nielsen
12 and had Nielsen vet my analysis.

13 JUDGE STRICKLER: The chart you're
14 referring to is the one on page 13?

15 MR. SEMEL: Yes, yes. That's what I was.

16 THE WITNESS: Yeah, the one that we have
17 on our screen just now.

18 BY MR. SEMEL:

19 Q. And was it created for this proceeding?

20 A. No. It was created in an earlier
21 iteration, so we didn't have as recent data as we
22 were able to display here, and for an internal
23 discussion about Spotify and debate about
24 cannibalization.

25 Q. I'm sorry, you said it was created in

1 earlier version, and then I guess it was re-created
2 in this version?

3 A. Yeah, basically, I just went back to
4 Nielsen and said if we can get updated data, we can
5 update the story.

6 Q. Right. And was that done as part of this
7 proceeding?

8 A. This particular chart has been presented
9 at internal meetings in Spotify several times, and
10 the importance of it, the additional more recent
11 data is you actually see the uplift in the blue
12 lines happening at the end of that particular time
13 period. So that's a new revelation for the internal
14 discussions and I think a relevant part of the
15 evidence for these particular CRB proceedings.

16 Q. And the data here, I understand, right,
17 the data did not come from you, correct? It came
18 from Nielsen?

19 A. Nielsen SoundScan, which, again --

20 Q. And the underlying data was not produced
21 in this case, correct?

22 A. Correct, but you could actually access
23 the same data from yourself from Nielsen by request.

24 Q. And do you know how the data was -- do
25 you know the methodology used to gather the data?

1 A. The methodology of gathering and
2 structuring this chart, well, yes, I requested
3 additional album sales by week over time, and then I
4 also requested additional track sales by week over
5 time. And what I did, which I was interested to see
6 that the Canadian music industry didn't do, was
7 compare week against same week prior year. And that
8 was important in terms of identifying a trend.

9 So in 2013, the actual download figures
10 for Canada showed growth on 2012, if you take a
11 calendar year view, but by looking at it as week
12 against week prior year, I was able to identify this
13 very interesting trend where you see the decline
14 happening in the third quarter of that year.

15 JUDGE STRICKLER: Because you detect the
16 seasonality in the -- in the streaming service -- in
17 the sale of downloads?

18 THE WITNESS: It wasn't seasonality.
19 Seasonality would be -- see a spike around the
20 Christmas period, and then, by doing it this way,
21 you could see whether that spike around the
22 Christmas period is as big as the spike previously,
23 but this was able to capture the dramatic effects
24 which took place in the third week of September
25 where you can see the blue lines, that is, growth of

1 digital albums went into red for a lengthy period
2 thereafter.

3 That is, to reiterate, iTunes sales went
4 into decline in a country where Spotify didn't
5 exist, where streaming hadn't taken off, where there
6 was no Pandora and no iTunes radio. The usual blame
7 game for cannibalization wasn't present in Canada to
8 explain that downward trend.

9 BY MR. SEMEL:

10 Q. And was there a reason that you chose
11 Canada for this research?

12 A. Yes, and it actually goes back to prior
13 to 2012, when the CRB last met. We had launched in
14 America in the summer of 2011, a soft launch, but we
15 hadn't launched in Canada until Christmas 2014. So
16 there was a long period there -- indeed, we had
17 Canadian officials coming to our office in London,
18 saying when are you going to launch in Canada? You
19 launched in Colombia, but when will you launch in
20 Canada? As a point of irony, there's a website
21 called Cantada.com, you which shows all the cool
22 stuff you can get in America but you can't get in
23 Canada, Cantada, their sense of humor, not mine.
24 And that had Spotify on the front page for many,
25 many years.

1 So what was interesting was we were
2 getting criticized for cannibalization in countries
3 like Britain and America, where downloads went into
4 decline around the third quarter of 2013, but you
5 can't criticize Spotify for cannibalization in
6 Canada when iTunes went into decline at exactly the
7 same period. So that was an accidental A-B
8 experiment, which I think was informative to the
9 debate about streaming access and downloads
10 ownership.

11 JUDGE STRICKLER: So was this analysis
12 also done for -- for Spotify's own internal
13 commercial purposes?

14 THE WITNESS: Well, I did it internally,
15 but I also took the information back to Nielsen, and
16 Nielsen had certainly discussed this analysis with
17 their representatives in the Canadian recorded and
18 publishing industry as well.

19 JUDGE STRICKLER: What was the purpose of
20 the internal -- the internal purpose of the
21 analysis?

22 THE WITNESS: I wanted to know why iTunes
23 were going into decline. And what I learned was you
24 can't attribute the decline to Spotify if Spotify is
25 not there to cause it.

1 JUDGE STRICKLER: Why was that important
2 to Spotify to know?

3 THE WITNESS: For myself, it was --
4 cannibalization is a concern. It is also an
5 opportunity. As people move from ownership to
6 access, that could lead to cannibalization of
7 existing buying revenues for those high buyers,
8 equally a widening of the revenue base and growth of
9 revenues for those non-music buyers.

10 So it can go either way, but putting
11 aside the debate about cannibalization, which
12 dominated the discussions at that particular point,
13 I was interested in the causality. Was Spotify the
14 cause of the decline in ownership?

15 JUDGE STRICKLER: And did you understand
16 that by identifying the causality, that would assist
17 Spotify in some way in increasing its revenues,
18 whether in Canada or otherwise?

19 THE WITNESS: It wasn't just revenues,
20 not in the slightest. What I wanted to do was
21 understand the causal effects.

22 JUDGE STRICKLER: As an academic
23 interest?

24 THE WITNESS: Precisely.

25 JUDGE STRICKLER: Thank you.

1 BY MR. SEMEL:

2 Q. But to be clear, although Spotify was not
3 available in Canada during these -- this period,
4 plenty of other streaming services were, such as
5 YouTube or Pandora or the like, correct?

6 A. You are correct to highlight YouTube,
7 but, to stress, Pandora was not. And I think to
8 this day, and correct me if I'm wrong, Pandora is
9 still not available in Canada.

10 Q. YouTube is, though?

11 A. YouTube is, yeah.

12 Q. I want to turn to your written rebuttal
13 testimony, on page 4 of your written rebuttal
14 testimony. In paragraph 8 you state that -- going
15 down about five lines, "that songwriters are better
16 off under the streaming structure because they are
17 receiving more revenue directly from PROs."

18 Do you see that?

19 A. I see that.

20 Q. You do not know the terms of any
21 performance rights licenses, correct?

22 A. I don't know the terms of the licenses,
23 but I wish to clarify I am aware of distribution
24 policy through working for PRS For Music for six
25 years.

1 Q. But you've never been privy to any terms
2 of any licenses for the performance rights for
3 musical works, correct?

4 A. Correct.

5 Q. And you don't know the percentage of cut
6 that is taken by PROs under their licenses with
7 songwriters, correct?

8 A. It should be stressed under songwriters
9 and music publishers have experienced that cut.

10 Q. Correct. But there is a cut taken,
11 correct?

12 A. Yeah --

13 Q. You don't know what it is, but there is
14 one?

15 A. Some people refer to it as commission,
16 but the technical and correct description, for the
17 Judges' benefit, is administrative cost because they
18 are not-for-profit entities.

19 Q. Right, administrative cost. And when
20 advances are recouped, songwriters will likely wind
21 up with less for moneys that are passed through
22 performance rights organizations because they have
23 an administrative cost, correct?

24 A. That is incorrect.

25 Q. But you don't know the terms of any of

1 the licenses, correct?

2 A. I don't know the terms of the licenses,
3 but your statement assumes that only songwriters
4 experience that cost. That cost is applied to
5 songwriters and music publishers equally.

6 Q. Indeed. And you have -- you have no idea
7 how much in performance rights organization fees
8 songwriters and publishers pay in the aggregate,
9 correct?

10 A. You would need to clarify what fees
11 refers to here.

12 Q. Administrative fees.

13 A. Administrative costs?

14 Q. Yeah, administrative costs.

15 A. Okay. So in an example such as the U.K.,
16 somewhere around about 15 percent would be the
17 administrative costs a not-for-profit PRO would
18 deduct for the -- for the processing and
19 distribution of those royalties.

20 Q. I understand, but you don't know the
21 terms of any of the licenses for the performance
22 rights, correct?

23 A. Of the licensees --

24 Q. I think we established that.

25 A. Of the licensees, no, but administrative

1 cost, I have a good general awareness.

2 Q. But these fees which, as far as you know,
3 are not paid on mechanical license income, correct?

4 A. That is incorrect.

5 Q. You do not know the terms of any of the
6 mechanical licenses, correct?

7 A. Again, we are confusing and conflicting
8 two words of "licensing" and "fees." I would be
9 aware of the administrative cost structure of
10 processing mechanical royalties in certain markets,
11 just through experience in working for PRS for Music
12 for six years, but I don't want to confuse that with
13 the licensing terms that those mechanical rights
14 bodies might conduct with rights users.

15 Q. Well, with regard to mechanical licenses,
16 you are not privy to any of the terms of any
17 licenses for the mechanical -- mechanical licenses
18 for musical works, correct?

19 A. Correct.

20 Q. I'd like to turn to page 11 of your
21 rebuttal testimony. Look at -- there's a section A
22 in the middle of the page that says the Copyright
23 Owners cannot name one scenario in which musical
24 works are licensed on a per-play rate.

25 JUDGE STRICKLER: Where are you?

1 Which --

2 MR. SEMEL: I'm sorry. On page 11 of the
3 written rebuttal testimony.

4 JUDGE STRICKLER: Page 11?

5 MR. SEMEL: Page 11, yeah, sorry.
6 There's a section that begins in the middle of the
7 page.

8 BY MR. SEMEL:

9 Q. Did you draft this section of your
10 testimony?

11 A. Yes, I did.

12 Q. And did you conceive of this as an
13 argument that you wanted to make in your rebuttal
14 testimony?

15 A. Yes, I did.

16 Q. Did you conclude that you had personal
17 knowledge of this subject matter?

18 A. Yes, I did.

19 Q. But you stated that you do not know the
20 terms of a single musical works license, correct?

21 A. Correct.

22 Q. Have you reviewed the musical works
23 licenses that were produced in this case?

24 A. In this statement here?

25 Q. No, no. I meant have you reviewed the

1 musical works licenses, there have been a number of
2 them that have been produced, as part of this
3 proceeding?

4 A. I have a general awareness of musical
5 works licensing but not a specific one.

6 Q. Right. And the musical works licenses
7 produced in this case are restricted material,
8 correct?

9 A. Correct.

10 Q. And you have not been given access to
11 that material, correct?

12 A. Correct.

13 Q. And, in fact, you don't even know the
14 terms of Spotify's musical works licenses, correct?

15 A. Correct.

16 Q. You have never consulted within Spotify
17 on content agreements, correct?

18 A. Correct.

19 Q. You have never seen any of the content
20 agreements that Spotify has entered into, correct?

21 A. Correct.

22 Q. You are not aware of any of the terms of
23 any of the content agreements that Spotify has,
24 correct?

25 A. Correct.

1 Q. You do not even know whether Spotify pays
2 publishers or songwriters on a per-play basis,
3 correct?

4 A. Correct.

5 Q. You have no understanding of what royalty
6 rates have been deployed in commercial agreements in
7 the space that is covered by this proceeding,
8 correct?

9 A. Insofar as the inputs, that is, what is
10 being negotiated, correct.

11 Q. And you have never been privy to -- I
12 think we covered this but maybe not. You've never
13 been privy to any terms of any content licenses for
14 mechanical rights, correct?

15 A. Correct.

16 JUDGE STRICKLER: Question for you,
17 related to counsel's question. He highlighted
18 heading A, the Copyright Owners cannot name one
19 scenario in which musical works are licensed on a
20 per-play rate.

21 Did you mean by that that you reviewed
22 the -- the restricted version of their -- of their
23 direct testimonies and that is that they did not
24 name such a scenario, or are you saying that they
25 would never be able to -- because of your knowledge

1 of the industry, would not be able to name a
2 scenario in which musical works were licensed on a
3 per-play rate.

4 THE WITNESS: The former.

5 JUDGE STRICKLER: Thank you.

6 BY MR. SEMEL:

7 Q. To be clear, you did not review the
8 restricted versions of the testimony in this case,
9 correct?

10 A. I reviewed the 16 written direct
11 testimonies from the copyright holders.

12 JUDGE STRICKLER: They're divided into
13 restricted and public versions. So the question is,
14 if I -- if I may, counsel, is did you review -- I
15 assume you read the public versions; you did not
16 have access, authority to read restricted?

17 THE WITNESS: That's right. That's
18 absolutely correct, the redacted versions.

19 JUDGE STRICKLER: Thank you.

20 BY MR. SEMEL:

21 Q. And it was your understanding that any
22 musical works terms would have been underneath the
23 black bars in the public version, correct? Would
24 have been redacted?

25 A. That would not be a fair statement with

1 regards to how I concluded from reading the 16
2 written direct testimonies.

3 Q. You say in paragraph 23 at the beginning
4 of this sentence -- oh, no sorry. In paragraph 24,
5 you note -- about a -- an argument that is made that
6 ignores the realities of music promotion and
7 consumption, terrestrial radio, like interactive
8 streaming, pays on a percentage of revenue basis.

9 First of all, what do you mean by
10 interactive streaming in that sentence?

11 A. So there may be transatlantic differences
12 in terminology, but if you view web casting as akin
13 to Pandora, then interactive streaming is akin to
14 Spotify tech services.

15 Q. And where did you obtain the factual
16 information that interactive streaming pays on a
17 percentage of revenue basis?

18 A. I think I can say I consulted with
19 colleagues within my company, but also having a good
20 awareness of the industry landscape in America, one
21 of many countries I have to cover, I've been made
22 aware of that.

23 Q. But I do believe we just established that
24 you do not know the single term of a single license
25 for -- a single content license in the space,

1 correct?

2 A. Correct.

3 Q. And you cannot identify a single
4 mechanical license that operates exclusively on a
5 percentage of revenue basis, correct?

6 A. Correct.

7 Q. In fact, you cannot identify the terms of
8 any mechanical licenses, correct?

9 A. Correct.

10 Q. Do you know the terms of Spotify's rate
11 proposal in this case?

12 A. No, I'm not aware of our current proposal
13 in this particular case.

14 Q. You include a few pieces of financial
15 information for Spotify in your written direct
16 testimony. I'm not going to go to them because
17 they're restricted and I don't need to close the
18 session for these purposes, but you do not have
19 visibility or personal knowledge of financial data
20 at Spotify, correct?

21 A. That is too ambiguously worded for me to
22 be able to answer.

23 Q. You do not do -- you do not have
24 visibility over the financial data, I think is how
25 you said in your deposition; does that sound right?

1 A. That is correct.

2 Q. And none of your analyses have involved
3 analysis of Spotify's gross margins?

4 A. That is correct.

5 Q. And none of your analyses have involved
6 analyses of Spotify's revenues?

7 A. Our revenues in the macroeconomic context
8 for our contributions in the music industry but
9 perhaps not in the financial context of managing
10 mechanics, for example.

11 Q. Right. And you are not aware of any
12 analysis that Spotify has done concerning the impact
13 of mechanical royalty rates on its growth, correct?

14 A. That is correct.

15 Q. And you are aware that Spotify currently
16 has some bundled plan offerings, correct?

17 A. I'm aware of bundling on a global level
18 in our 60 markets, correct.

19 Q. Have you heard of the New York Times
20 bundle?

21 A. Yes, I've read about that in the press.

22 Q. But you have not evaluated the economic
23 ramifications for Spotify of proposed bundling terms
24 -- deals, correct?

25 A. Correct. I would be involved in the

1 landscape of what music are facing and how two
2 incentives can be aligned.

3 Q. And you have not evaluated the effect of
4 bundling programs on Spotify's revenues, profits, or
5 margins, correct?

6 A. Correct, much more economic analysis than
7 financial.

8 Q. You have also not done financial analysis
9 concerning the impact of the mechanical royalty rate
10 structure on Spotify's future or the viability of
11 its plans, correct?

12 A. Correct.

13 Q. If we could look at page 12 of your
14 rebuttal testimony, we'll be looking at paragraph
15 25 -- oh, actually, right above that, really, you
16 have a -- a section that discusses overall
17 publishing revenue.

18 A lot of publishing revenue -- is it your
19 understanding that the Copyright Owners in this
20 case, a number of publishers produced financials in
21 connection with this proceeding. Do you understand
22 that?

23 A. Correct, but to reiterate, I looked at
24 redacted versions of their statements.

25 Q. Right. That's what I was going to

1 clarify. You did not have access to that
2 information, correct?

3 A. Yeah, correct.

4 Q. So anything you are talking about here is
5 coming from a third-party source, correct?

6 A. Correct.

7 Q. You don't have direct access to any
8 publisher revenue information, correct?

9 A. Again, if I can distinguish financial and
10 economic data here, for example, a global musical --
11 global value of musical copyright, the turnover of
12 musical publishing globally, at the end there's
13 analysis referring to the turnover of U.S. music
14 publishers specifically.

15 So I would consider that as economic
16 information, not financial information in terms of
17 the management of accounts or the detailed margins
18 that publishers would disclose in that redacted
19 form.

20 Q. Right. But you're -- you are utilizing
21 third-party information, information compiled by
22 other people that's available publicly or for
23 purchase in connection with your analysis of
24 publisher revenue, correct?

25 A. Correct.

1 Q. If we look at page -- sorry, page 14,
2 paragraph 29, you have a discussion of synch
3 licenses are inappropriate comparisons. I just want
4 to clarify, you -- maybe this was wrapped up in the
5 questions we had earlier, but you don't know the
6 terms of any licenses for synchronization in the
7 musical work space, correct?

8 A. What I do know is you can't generalize in
9 those terms because they're directly licensed,
10 they're all unique to the terms of the particular
11 case.

12 Q. But you don't know the terms of any of
13 the licenses, correct?

14 A. Again, I wish to stress you can't
15 generalize terms. You can't say what the terms of
16 the synch license when every single synch license is
17 done differently.

18 JUDGE STRICKLER: Well, you would only
19 know that if you saw the licenses, right?

20 THE WITNESS: Yeah, but --

21 JUDGE STRICKLER: You might -- you might
22 be able to generalize if you had seen them?

23 THE WITNESS: You may be able to
24 generalize. You may conclude that they're a too
25 disparate nature to generalize from. The point

1 being they're all unique to the terms, so I would
2 hesitate to say there is a way that you can
3 generalize synchronization licensing.

4 JUDGE STRICKLER: Well, just to sort of a
5 logical point, and perhaps I'm missing it, if you
6 can't -- if you don't see the licenses, how do you
7 know you can't generalize? How do you know they're
8 not essentially standard? You could, through
9 economic logic, suggest that they would be
10 different, but you wouldn't know that unless you
11 actually looked at them and said there is no
12 generalization that you can make.

13 THE WITNESS: That's a fair --

14 JUDGE STRICKLER: Is that a fair
15 statement?

16 THE WITNESS: It's a fair and reasonable
17 point, but if I could augment that point by saying,
18 as you move up the value chain of synchronization
19 licensing from a small TV commercial worth 20,000
20 dollars to a major Coca-Cola campaign which could be
21 worth millions of dollars, you'd expect as value
22 grows, the uniqueness of the synchronization deal
23 itself will grow with it as well. So you would have
24 a sort of a bargain bin of standardized
25 synchronization licensing, but as you move up the

1 value chain, you would have more unique terms to
2 that contract, making them more -- more distinct
3 from each other.

4 JUDGE STRICKLER: So economic logic
5 suggests no generalization, but you don't know
6 whether, in fact, that logic holds in the individual
7 agreements because you haven't seen them?

8 THE WITNESS: Yes, but you can apply some
9 solid economics to what underpins the nature of a
10 synchronization license.

11 JUDGE STRICKLER: Thank you.

12 BY MR. SEMEL:

13 Q. And you -- you don't know -- yeah, I
14 think this was clarified, but let me just pin down.
15 You don't know the terms of a single synchronization
16 license, correct?

17 A. Well, through personal capacity, I've
18 looked at single synchronization licensing, but I
19 wanted to stress that's just one of millions, and
20 they will all be different from each other.

21 Q. You've looked at one synchronization
22 license, correct?

23 A. Yes, you -- you're aware of how a
24 synchronization license can work. For example,
25 working at PRS for Music, you are aware of

1 synchronization licensing, which could go through
2 the performing rights organization but equally
3 direct through the publisher.

4 Q. No, I didn't mean that you were aware
5 that the concept exists, but I meant you have never
6 actually inspected a license, a signed license for
7 synchronization rights, correct?

8 A. That is correct.

9 Q. And you've never, again, negotiated such
10 a license, correct?

11 A. That is correct.

12 Q. And do you know whether or not
13 synchronization licenses -- withdrawn.

14 If we move to page 11 to 12 of your -- I
15 guess we're moving back to page 11 to 12 of your
16 rebuttal statement, there's a sentence that begins
17 on the bottom of page 11, continues on to page 12,
18 that says, "Once a consumer purchases a CD or PDD,
19 they can access the music by playing a song as often
20 or as little as they would like." Correct?

21 A. Correct.

22 Q. And you agree with that statement; you
23 wrote it, correct?

24 A. Correct.

25 Q. And that statement is made in the context

1 of your argument that you're not being charged per
2 play when you purchase a CD, correct?

3 A. Correct.

4 Q. In essence, you're -- rather, you're
5 being charged an access fee after which you can play
6 it as much as you want, correct?

7 A. As much or as little as you want.

8 Q. Right. But -- but as you say it, once a
9 consumer purchases, they can access the music,
10 correct?

11 A. Correct.

12 Q. So the -- the payment is for the access,
13 correct?

14 A. I disagree with that term. I believe the
15 payment is for the ownership. And to offer a very
16 interesting example, you can sell that CD in the
17 secondhand market for a capital gain and not have to
18 pay the copyright holder. Again, one of the
19 benefits of Spotify is in monetizing the consumption
20 which would otherwise be forgone in that ownership
21 example. So I think it's the purchase of ownership
22 of intellectual property, to exhaust intellectual
23 property that's probably what we need to clarify
24 here.

25 Q. So you're making a distinction between

1 ownership and access?

2 A. Correct.

3 Q. And is the distinction that there is a
4 physical thing that you own?

5 A. Yes. The example of the CD, you purchase
6 the CD, you exhaust the intellectual property, and
7 the anomaly that I always like to refer to is the
8 fact that you can therefore sell that CD or that
9 vinyl record for a capital gain. It's yours to
10 sell. That doesn't apply for a digital download
11 file, but it does apply to CDs.

12 Q. But it doesn't apply for a digital
13 download file, does it? In that case, you're paying
14 a fee to access the download?

15 A. Correct.

16 Q. And then you can play it as much as you
17 want, correct?

18 A. But I would also perhaps add a legal
19 point, and I'm not a lawyer, but the ReDigi case,
20 which is going through the courts right now, raises
21 that question. I spent 2,000 pounds on my iTunes
22 catalogue; can I sell it on because I'm moving to a
23 different platform?

24 Q. Right. But even then, though, when you
25 sell it, you are losing your access, correct? So

1 the access is inextricably tied to your concept of
2 ownership, correct?

3 A. Unless you rip that CD to your computer
4 and therefore want to listen to it there, so there
5 are extensions to how you might want to access the
6 ownership.

7 Q. Well, you are postulating an illegal act,
8 correct?

9 A. Illegal act in some countries, not
10 illegal in others.

11 Q. If we could move ahead to page 18 of your
12 rebuttal statement, in the middle of the page, you
13 have a section A that says mere access is a value
14 argument is unprecedented in the industry.

15 Do you see that?

16 A. Yes, I see that here.

17 Q. But, in fact, as we just discussed,
18 payment for access is, in fact, much of the history
19 of recorded music, correct?

20 A. Incorrect.

21 Q. When you purchase a download as you said,
22 you get access to the CD, after which you can play
23 it as much as you want. Those were your words,
24 correct?

25 A. Correct.

1 Q. You didn't say when you purchase a CD,
2 you get ownership of the CD; you actually used the
3 word "access," correct?

4 A. I wish to clarify what I said earlier,
5 which is ownership gives you the intellectual
6 property of that CD. And I further illustrate my
7 example in this legal clarification of language,
8 which is that you can sell that CD on the secondhand
9 market. That's an ownership proposition. Accessing
10 is pressing the play button on your CD player, but
11 you own intellectual property.

12 Q. But when you sell it, you lose the
13 access? And another person purchases it, and they
14 get the access? The value comes in the access? If
15 you could own it but not access it, there wouldn't
16 be much value in that CD, would there? If someone
17 offered to sell you a CD but you could never play
18 it, I don't think you'd be able to charge very much
19 for it, correct?

20 A. That is correct, but it's a fairly
21 incoherent proposal to put forward to the CD
22 product.

23 Q. You are not aware of any econometric
24 analysis that's behind the \$9.99 price point that
25 Spotify charges for its standard premium plan,

1 correct?

2 A. No econometric analysis, other than to
3 point out what I stressed earlier, which is very
4 important to appreciate which is that Rhapsody was
5 in America at \$9.99 long before Spotify came. So
6 there's maybe a gravitational force towards that
7 price. And then, secondly, to consider a concept
8 that economists call shadow pricing, which is,
9 broadly speaking, the value of a monthly fee to an
10 access point like Spotify is equivalent to a monthly
11 purchase of an album. They are not econometrics.
12 They are fairly simplified terms. But I do think
13 those two economic factors had a role in this
14 gravitational force to \$9.99, which happened long
15 before Spotify came and long before the last CRB
16 hearings.

17 Q. And it actually happened at Spotify
18 before you came to Spotify, correct?

19 A. Correct.

20 Q. And you have never done an analysis at
21 Spotify to estimate how many different streaming
22 services can be sustained in the U.S. market,
23 correct?

24 A. Correct. It's something that we are
25 constantly aware of in terms of number of players in

1 a market and, for the economists in the room, how
2 markets can converge on an oligopoly, but it's
3 interesting to think through, you know, that
4 question, something that I will do work around, but
5 I haven't done any pure economic analysis on that
6 topic.

7 Q. And you have not analyzed what the effect
8 on Spotify's revenues would be of not offering its
9 ad-supported tier, correct?

10 A. I believe the earlier discussion that --
11 with yourself and my counsel had regarding the O&O
12 study actually answered that question.

13 Q. Well, I'm -- I'm just looking at your
14 deposition testimony. So maybe something has
15 happened in between then and now. But you've never
16 analyzed what the effect on Spotify's revenues would
17 be of not offering its ad-supported tier, correct?

18 A. To clarify, what you can infer is that in
19 terms of share of preference, which is not revenues,
20 the impact of losing that free tier would be net
21 negative on the Freemium business that we operate.
22 And then to your question, it would be logical to
23 conclude that would be net negative upon revenues as
24 well, but I have not actually analyzed the revenues
25 equation per se. I'm just simply concluding that if

1 you have less of a business, you have less of a
2 business.

3 Q. But you haven't analyzed the effect on
4 revenues, correct?

5 A. Correct.

6 Q. And you have never done an analysis of
7 whether Spotify's ad-supported tier cannibalizes
8 users from its premium tier, correct?

9 A. It's correct, but it's the incorrect way
10 of looking at the Freemium model and the path to
11 paid that I explained earlier.

12 Q. And you've done no analysis into whether
13 or not aggregate performance income from live
14 performances in the U.S. has risen because of
15 Spotify, correct?

16 A. Correct, but with my global analysis of
17 live music and some very detailed analysis in the
18 U.K. live music market, I would also add that
19 revenues from live music were growing long before
20 Spotify got started. And, indeed, in a famous piece
21 of work in the U.K., I showed in March 2009 was the
22 first time in recent economic history live revenues
23 had overtaken recorded.

24 Q. And you -- you cite to reports by the
25 company MiDia, M-i-D-i-a, numerous times in your

1 report, correct?

2 A. Correct.

3 Q. Do you know the managing director of
4 MiDiA?

5 A. Yes, he's a very well respected
6 consultant.

7 Q. This is Mark Mulligan, correct?

8 A. Correct.

9 Q. And -- and you find MiDia and
10 Mark Mulligan one of the more or most reliable
11 sources of information in the industry, correct?

12 A. Correct. And I would also include many
13 publishers who also subscribe to his work and would
14 echo the same sentiments.

15 MR. SEMEL: I have no further questions
16 at this time.

17 MR. MANCINI: Your Honor, I have only a
18 couple of questions, and we can release him before
19 the lunch break.

20 JUDGE BARNETT: Let's go ahead now and
21 wrap it up.

22 REDIRECT EXAMINATION

23 BY MR. MANCINI:

24 Q. Mr. Page, a few minutes ago, you were
25 asked by Mr. Semel to compare the difference between

1 ownership and access, and I just want to probe that
2 a bit further with you.

3 Is it true that for a CD and a PDD, the
4 user has ownership over that music, correct?

5 A. Correct.

6 Q. And with Spotify, if a user no longer
7 renews their Premium service, can they access those
8 songs any longer?

9 A. They can't access those songs in the same
10 interactive on-demand way. It's one of the key
11 features which splits first class and standard
12 class.

13 Q. And if a user no longer is a Spotify
14 Premium user, they only have access to the free
15 service, correct?

16 A. Correct.

17 Q. So their access is limited?

18 A. Correct.

19 Q. You were also asked about what would
20 happen to Spotify if its free tier was in effect
21 shut down.

22 A. Correct.

23 Q. Can I ask you to turn your attention to
24 Spotify Trial Exhibit 1025, specifically slide 3.
25 Did you have occasion to study that question?

1 A. Yes.

2 Q. And what did you conclude?

3 A. So if you're referring to slide 3 here,
4 and the question that we were addressing here is
5 removing mobile free tier would have very little
6 impact on the uptake to pay. So, again, this was
7 about restrictions on our Freemium model, not
8 restrictions on the features within Free but on the
9 entire Freemium model.

10 So to read the subheading there,
11 withdrawing Spotify's mobile feature would have
12 little impact on the uptake of Premium services.
13 Only 6 percent of the current Free users say that
14 they would make the leap. That is, by pulling the
15 rug from under the feet of the sheep that are in
16 that pen, very few of those sheep would go into the
17 superior first-class proposition.

18 Q. Just one more question. Do you recall
19 previously, I think, that Judge Strickler asked you
20 about Demonstrative Number 5, if I may put that on
21 up on the screen. If you were made aware that
22 there's no legally recognized public performance
23 associated with a ringtone or a download, does that
24 change your understanding of how digital is
25 reflected here in BMI's revenue sources?

1 A. If I can just repeat your question, if --

2 Q. If there's no legally recognized public
3 performance right in the U.S. associated either with
4 a ringtone or a download.

5 A. That is correct. And may I apologize, I
6 was perhaps confusing transatlantic licensing
7 models. There is a performance right in the
8 download in many European countries. So just --
9 this actually enhances the results. The reason that
10 digital segment of the pie is growing, to quote
11 ASCAP and BMI's press release, will be even more to
12 do with streaming and less to do with the offsets of
13 downloads.

14 MR. MANCINI: So, Your Honors, at this
15 point, I'm concluded with Mr. Page. I would like to
16 just move into evidence a series of exhibits that
17 were attached to his WDT and WRT, subject to the
18 same understanding we had with Mr. Semel to further
19 brief. And those would be Trial Exhibits 65, 82,
20 215, 218, 898, 985, 986, 987, 989, 990, 992, 994,
21 995, 996, 997, 1020, 1021, 1024, 1027, 1514, 2686,
22 2898, 2742, 2658, and 2868.

23 MR. SEMEL: The only thing I would
24 note -- we'll deal with this in the briefing,
25 though -- is that we had sort of thought they were

1 going to try to lay a foundation for these documents
2 because they are all third-party documents that the
3 witness has no personal knowledge of. So we'll
4 address it in the briefing, but I'm a little bit
5 surprised that there's an attempt to move in 20
6 documents that do not come from Spotify and come
7 from third parties, without having any attempt being
8 made to lay a foundation during testimony.

9 JUDGE BARNETT: But, Mr. Mancini, your
10 representation is that all of these were attached to
11 either the written direct or the written rebuttal
12 testimony of this witness?

13 MR. MANCINI: That is correct, Your
14 Honor.

15 JUDGE BARNETT: You agree on that?

16 MR. SEMEL: Yes, that's correct.

17 JUDGE BARNETT: Thank you.

18 (Spotify Exhibit Numbers 985, 986, 987,
19 989, 990, 992, 994, 995, 996, 997, 1020, 1021, 1024,
20 and 1027 were marked and received into evidence.)

21 (Amazon Exhibit Numbers 65, 82, 215, and
22 218 were marked and received into evidence.)

23 (Apple Exhibit Number 1514 was marked and
24 received into evidence.)

25 (Pandora Exhibit Number 898 was marked

1 and received into evidence.)

2 (Copyright Owners Exhibit Numbers 2658,
3 2686, 2742, 2868, and 2898 were marked and received
4 into evidence.)

5 MR. MANCINI: I have no further questions
6 for this witness.

7 JUDGE BARNETT: Thank you.
8 Judge Strickler?

9 JUDGE STRICKLER: Yeah, I have two
10 questions for you, Mr. Page. Both of them deal with
11 paragraph 76 of your written direct testimony, where
12 you talk about you assert to be the promotional
13 value of Spotify-curated and algorithmically driven
14 playlists. If you could turn to that for just a
15 second. And paragraph 76 begins on page 32.

16 THE WITNESS: Thank you.

17 Okay, thank you, I have that here.

18 JUDGE STRICKLER: Okay. Now turn one
19 more page, if you would, still staying in paragraph
20 76. It's really a very basic question, two
21 questions.

22 You have a graph there, and you're
23 showing streaming relative to -- to months from --
24 from September 2013 through July -- through May of
25 2014.

1 THE WITNESS: Um-hum, that's correct.

2 JUDGE STRICKLER: The vertical axis
3 doesn't have any numbers on it. What are we looking
4 at there?

5 THE WITNESS: Correct. So in the -- I
6 will stress that in the footnote that links to the
7 article that's publicly available on-line, we
8 explain our approach here. And perhaps it's
9 important to elaborate here which is we're doing
10 normalized charts, that is, I have radio plays, I
11 have Shazam tags, and I have Spotify streams, three
12 completely different entities.

13 For the purpose of normalizing, it's
14 important firstly to get permission from
15 rightsholders to present this work, and this was
16 done in conjunction with Mr Probz publisher and
17 record label, and secondly to highlight the order of
18 events. When in a normalized chart do things reach
19 their natural peak?

20 Now, all peaks mean different things.
21 Peaks in radio spins is not the same thing as a peak
22 in streams, but a peak is a peak, and by that, we
23 can determine the order of events. And the purpose
24 of this chart was to show for this Dutch artist, who
25 I have to stress didn't have a house at the start of

1 this particular calendar year, finished a year with
2 a gold record in the United States, streams move
3 first, then Shazam tags, then radio plays.

4 JUDGE STRICKLER: I -- I understand the
5 point of the chart, but because there -- it's sort
6 of an apples to oranges comparison, you have three
7 different things here, it couldn't be normalized by
8 a -- by a percentage change on the -- on the
9 vertical axis?

10 THE WITNESS: That wouldn't work in that
11 economic analysis for this purpose, because the
12 percentage changes, again, refer to different
13 entities. A radio play, a stream, and a Shazam tag
14 are different things by nature. So I felt the best
15 way to construct this chart -- and we've pursued
16 this going forward even making data available to the
17 artist, the writers, the labels, and publishers --
18 is to normalize the data so you can tease out what
19 moved first.

20 And that led us to draw a very important
21 conclusion, which is up until this piece of work
22 which went public, everyone consumed -- everyone
23 assumed that you broke music on radio, and then
24 sales and streaming would follow. And what we show
25 here is that you break music on Spotify, then Shazam

1 tags and then radio follows after that. So it was
2 the change in order of events which was the lesson
3 that we wanted to teach.

4 JUDGE STRICKLER: So the chart is showing
5 us the timing of the change and the direction of the
6 change and the relative timing of the change between
7 streaming and -- and radio plays?

8 THE WITNESS: Yeah.

9 JUDGE STRICKLER: But the magnitude of
10 those changes cannot be gleaned from this chart
11 because -- because of the -- of the way that the
12 chart is normalized; it does not include any kind of
13 a volume measure?

14 THE WITNESS: Yeah. I understand your
15 question thoroughly. And maybe I can just capture a
16 comment that was made in the full blog article which
17 led to this work, which was that Mr Probz' Waves,
18 the Robin Schulz remix of Waves, commences its
19 ascendancy in America through our playlist and
20 entered the top 40 on the Spotify visible chart.

21 To which I then got a phone call from the
22 CTO of Shazam, saying how on earth is this artist in
23 your chart where I don't have one single Shazam tag
24 to justify their presence.

25 JUDGE STRICKLER: This conversation that

1 you're referring to is not in your testimony?

2 THE WITNESS: It's not in the testimony,
3 but it is in public presentations which are, I
4 presume, on YouTube, and in the blog article as
5 well, we actually state and cite Shazam on this
6 point.

7 JUDGE STRICKLER: You're talking about
8 the reference in paragraph 65 -- in footnote 65?

9 THE WITNESS: Let me just make sure.
10 Yeah, in paragraph -- in footnote 65, yeah, that is
11 correct.

12 JUDGE STRICKLER: Maybe I'm -- maybe I'm
13 mistaken because you're referring to Mr Probz now,
14 not -- not Meghan Trainor. Is it 63, paragraph 63,
15 for Mr Probz?

16 THE WITNESS: I may be confusing mine
17 with his. Yeah, sorry, 63 is Mr Probz, and then 65
18 is Meghan Trainor. They're both available on the
19 same public venue, Spotify for Artists web site.

20 JUDGE STRICKLER: Okay. So the absence
21 of a -- of a vertical axis measure on page 35 for
22 the Meghan Trainor release is -- the reason for that
23 absence the same as you just testified for with the
24 previous -- the previous song, correct?

25 THE WITNESS: Yeah, it's correct. Just

1 to clarify, again, with Meghan Trainor what we were
2 able to do here is normalize the charts to show the
3 order of events but, with the permission of the
4 rightsholders, present her case study. And on this
5 occasion publishers, record labels, and the artists
6 were happy for it to be presented this way to
7 demonstrate how the order of events was different
8 from what people conventionally would have thought.
9 That is radio is not breaking music in this case;
10 rather than coming first, the red line comes last.

11 JUDGE STRICKLER: You say that the -- who
12 do you say was happy to have it presented this way?

13 THE WITNESS: So if you read the blog
14 articles, you see I take time to thank all the
15 people involved, and you'll see the record labels
16 and publishers provided third-party data were all
17 granted consent and were allowed to review the blog
18 posting before we went public.

19 But to reiterate, normalizing the data
20 allows us to present an artist case study without
21 revealing commercially sensitive information.

22 JUDGE STRICKLER: Were these two charts
23 that I just referred to on pages 33 and 35 of
24 written direct testimony prepared specifically for
25 this proceeding or were they prepared internally at

1 Spotify for -- or anywhere else or by anyone else
2 for any other reason?

3 THE WITNESS: I prepared them for many
4 workshops that we were doing with artists and
5 songwriters at the time, and then we continue to do
6 to this day, which is to make, firstly, a point that
7 we're all on a very steep learning curve, as we
8 adapt to this access model, and, secondly, that many
9 conceptions you had about the order of events in
10 music industry may have changed now. So this is
11 taught to someone as an artist in terms of if you
12 want to break music, the viral approach at Spotify
13 where sharing is done on a legal platform, where
14 rightsholders get compensated is often moving first.

15 And in both situations, it was three to
16 four months before radio followed, which makes you
17 ask questions such as why do you have a radio
18 promotional department in a record label? It
19 doesn't break music, have a relationship, but
20 Spotify is breaking that music.

21 JUDGE STRICKLER: Thank you.

22 MR. MANCINI: Thank you, Your Honors.

23 JUDGE BARNETT: Thank you, Mr. Page. You
24 may be excused. And we will be at recess until
25 1:15.

1 (Whereupon, at 12:17 p.m., a lunch recess
2 was taken.)
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1 AFTERNOON SESSION8

2 (1:24 p.m.)

3 JUDGE BARNETT: Please be seated.

4 MR. ASSMUS: Good afternoon, Your Honor,
5 Richard Assmus on behalf of Spotify U.S.A. Are you
6 ready for the next witness?

7 JUDGE BARNETT: We are, indeed. I
8 understand it is a Spotify witness.

9 MR. ASSMUS: Yes. We call Dr. Leslie
10 Marx.

11 Whereupon--

12 LESLIE MARX,
13 having been first duly sworn, was examined and
14 testified as follows:

15 DIRECT EXAMINATION

16 BY MR. ASSMUS:

17 Q. Good afternoon, Dr. Marx.

18 A. Afternoon.

19 Q. Could you introduce yourself to the
20 panel?

21 A. My name is Leslie Marx. I'm an
22 economist. I'm a professor at Duke University.

23 Q. And what is your exact title at Duke?

24 A. I am the Robert A. Bandeen Professor of
25 Economics at the Fuqua School of Business at Duke

1 University.

2 Q. The Robert A. Bandeen professor, what
3 does that mean?

4 A. It means I hold a distinguished
5 professorship, which is the top of the professorial
6 ladder at Duke University.

7 Q. And could you give the panel a brief
8 overview of your educational background?

9 A. I have an undergraduate degree in
10 mathematics from Duke University and a Masters and
11 Ph.D. in economics from Northwestern University.

12 Q. When did you receive your Ph.D.?

13 A. 1994.

14 Q. Could you walk us through your
15 professional work history since you received your
16 Ph.D. -- Ph.D. in economics; is that right?

17 A. That's right.

18 Q. If you could walk us through your
19 professional work history since you received that
20 Ph.D.

21 A. I was a professor in economics at the
22 University of Rochester. And then in 2002 moved to
23 Duke University. And I have been at Duke since
24 then, except for a year where I worked as a chief
25 economist at the Federal Communications Commission

1 here in D.C.

2 Q. What is it that the chief economist for
3 the FCC does?

4 A. The chief economist is responsible for
5 the economics coming out of the Commission. I was
6 involved in the review of transactions among
7 telecommunications companies that were coming up at
8 that time.

9 And also there were issues related to
10 media ownership rules, which involved media, cable,
11 programming, as well as radio.

12 Q. And what areas of economics do you
13 specialize in?

14 A. Industrial organization and applied game
15 theory.

16 Q. Approximately how many peer-reviewed
17 articles have been published in your name?

18 A. Roughly 40.

19 Q. And have you served as a testifying
20 expert in any other matters?

21 A. Yes, I have.

22 Q. Were any of those matters related to
23 copyrights?

24 A. Yes.

25 Q. Which ones?

1 A. I was involved in the rate determination
2 for Pandora, in its case with ASCAP in front of the
3 rate court.

4 Q. That's in the Southern District of New
5 York?

6 A. That's correct.

7 Q. And were you an expert for Pandora in
8 that matter?

9 A. Yes, for Pandora.

10 Q. Are there any other notable
11 accomplishments in your personal or professional
12 life?

13 A. I represented the United States at the
14 1996 Olympics in the sport of fencing.

15 Q. Thank you.

16 MR. ASSMUS: Your Honor, Spotify would
17 offer Dr. Marx as an expert in economics and
18 industrial organization.

19 MR. SEMEL: No objection.

20 JUDGE BARNETT: Dr. Marx is so qualified.

21 MR. ASSMUS: Thank you.

22 BY MR. ASSMUS:

23 Q. Dr. Marx, there should be a binder before
24 you. And the first tab in that binder should be
25 Spotify Trial Exhibit 1065, if you can take a moment

1 to turn to it.

2 A. Yes.

3 Q. And do you recognize that document?

4 A. This is my written direct testimony.

5 Q. And if you could turn to the page
6 immediately following numbered page 58 in that
7 exhibit.

8 A. Yes.

9 Q. Is that your signature?

10 A. Yes, it is.

11 Q. Spotify would move into evidence her
12 written direct report, which is Spotify Trial
13 Exhibit 1065.

14 MR. SEMEL: No objection.

15 MR. ASSMUS: If I can take a moment on
16 the topic of exhibits, while we're on that topic, I
17 met and conferred with Mr. Semel, counsel for the
18 Copyright Owners prior to this testimony, and I have
19 a list of the unobjected, what I understand is
20 unobjected exhibits that I would like to move into
21 evidence, all of which were attached to her written
22 direct testimony.

23 JUDGE BARNETT: Thank you.

24 MR. ASSMUS: That would be, I will read
25 out the full trial Numbers, Amazon Trial Exhibit 7,

1 Copyright Owners Trial Exhibit 2898, Amazon Trial
2 Exhibit 221, Pandora Trial Exhibit 909, Copyright
3 Owners Trial Exhibit 2699, Apple Trial Exhibit 1566,
4 Pandora Trial Exhibit 903, Copyright Owners Trial
5 Exhibit 2936, Spotify Trial Exhibit 1004, and
6 Spotify Trial Exhibit 1702. Mr. Semel will tell me
7 if I did that correctly.

8 MR. SEMEL: Is it 1002?

9 MR. ASSMUS: I believe it is Spotify
10 Trial Exhibit 1702.

11 MR. SEMEL: Is that the Shapley value?

12 MR. ASSMUS: Yes, correct.

13 MR. SEMEL: Okay.

14 JUDGE BARNETT: So we're in agreement?

15 MR. SEMEL: Yes, yes, we are in
16 agreement, no objections. And I believe actually
17 Amazon Trial Exhibit 7 is already in the record.

18 MR. ASSMUS: Thank you.

19 JUDGE BARNETT: All of those enumerated
20 exhibits, as well as Exhibit 1065 are admitted.

21 (Spotify Exhibit Numbers 1065, 1004, 1702
22 were marked and received into evidence.)

23 (Amazon Exhibit Numbers 7 and 221 were
24 marked and received into evidence.)

25 (Copyright Owners Exhibit Numbers 2699,

1 2898, 2936 were marked received into evidence.)

2 (Pandora Exhibit Numbers 903 and 909 were
3 marked and received into evidence.)

4 (Apple Exhibit Number 1566 was marked and
5 received into evidence.)

6 BY MR. ASSMUS:

7 Q. Thank you. Dr. Marx, can you briefly
8 describe your assignment in this matter?

9 A. I was asked to help determine reasonable
10 mechanical royalty rates for interactive streaming
11 services in light of the 801(b) factors.

12 Q. Could you briefly tell us what those
13 factors, four factors are?

14 A. Yes. There are four factors. The first
15 one speaks to maximizing the availability of
16 creative works to the public. There is a
17 demonstrative slide.

18 Q. Let me ask you, did you prepare some
19 slides in connection with your testimony today?

20 A. Yes, I did.

21 Q. If we could have the first slide.
22 Perfect.

23 Could you walk us through the -- your
24 economic -- strike that.

25 As an economist, did you take an economic

1 interpretation of the 801(b) factors?

2 A. Yes, I did.

3 Q. Could you walk us through how it is that
4 you used economics to interpret these four factors?

5 A. I was thinking about how economics could
6 be useful in helping determine reasonable royalty
7 rates in light of these 801(b) factors, so for each
8 of the 801(b) factors, I provided an economic
9 interpretation of that factor.

10 The first one is to maximize the
11 availability of creative works to the public. An
12 economist might think about availability as relating
13 to production and distribution and pricing, so that
14 it is in the practical sense available to consumers.

15 So my interpretation related to that
16 first factor was that the royalty rate structure
17 should maximize the sum of producer and consumer
18 surplus, should maximize economic efficiency.

19 JUDGE STRICKLER: From an economic point
20 of view, is that the same thing as saying you want
21 to eliminate the dead weight loss as much as
22 possible?

23 THE WITNESS: That's correct.

24 The second and third factors talk about
25 fair return and fair income and that the royalty

1 payments should reflect the relative roles of the
2 copyright owners and copyright user.

3 I gave an interpretation to those two
4 801(b) factors of the Shapley value. The Shapley
5 value is a concept from game theory that gives a way
6 of dividing up value that is created by parties
7 coming together. And it has been given the
8 interpretation in the economics literature as being
9 an embodiment of fairness.

10 It divides up value in proportion to the
11 relative contributions of the parties coming
12 together.

13 The fourth 801(b) factor talks about
14 minimizing disruptive impact. In order to give that
15 an economic interpretation, I interpreted it in
16 terms of looking at benchmarks, in particular
17 benchmarks that seemed likely to reflect the 801(b)
18 factors, and using those benchmarks with the idea
19 that by staying relatively close to those
20 benchmarks, that that would likely minimize any
21 disruptive impact.

22 BY MR. ASSMUS:

23 Q. Thank you. I would like to take a deeper
24 dive into several of these factors. With respect to
25 the first factor and total surplus, could you tell

1 us what you mean by total surplus?

2 A. In economics there is a notion of
3 consumer surplus and producer surplus. And putting
4 them together, you get total surplus. Consumer
5 surplus is the value that consumers get from
6 consumption, minus what they have had to pay in
7 order to consume.

8 And then producers surplus, you can think
9 of it as the profits to the suppliers, profits to
10 the producers. And so putting them together, you
11 get a measure of the total value created through the
12 market exchange.

13 Q. And in this particular matter, who is it
14 that represents the consumers?

15 A. Here when I am thinking about economic
16 efficiency, I am thinking of the consumer as being
17 the listeners.

18 Q. And what about the producers, who are the
19 producers in this matter?

20 A. When I am thinking in that, thinking
21 about economic efficiency, I am thinking about the
22 producers as being together the copyright owners and
23 copyright users who make those works available to
24 the listeners.

25 Q. Now, you mentioned that you used a

1 Shapley value calculation.

2 JUDGE STRICKLER: Before you go there,
3 because you are getting into B and C now.

4 MR. ASSMUS: I am.

5 JUDGE STRICKLER: I want to stick with
6 the witness' testimony about factor A. So you view
7 the consumer in terms of consumer surplus as being
8 the listeners themselves, right?

9 THE WITNESS: Yes, I do.

10 JUDGE STRICKLER: So we're talking about
11 the downstream market?

12 THE WITNESS: That's right.

13 JUDGE STRICKLER: And your analysis says
14 that as a consequence of economic efficiency --
15 well, actually, I guess in this page you haven't
16 expressed your opinion yet about analysis of
17 economic efficiency or percentage of revenue versus
18 per stream or per user rates.

19 So let me just ask the question in light
20 of the fact that you just tabled, if you will, over
21 there.

22 Do you think there is any difference
23 between whether or not there should be a pricing
24 that reflects percentage of revenue at the
25 downstream level versus the upstream level or there

1 is no difference?

2 THE WITNESS: I think that it is pretty
3 clear that the marginal cost of an additional stream
4 to a consumer is zero or very close to it.

5 JUDGE STRICKLER: Right. I didn't want
6 you to get ahead because I know you are going to get
7 into that in detail, but in the analysis that you
8 are suggesting here, do you distinguish between how
9 to price at the upstream level versus at the
10 downstream level?

11 THE WITNESS: I'm looking for -- you can
12 think of it both ways. So I am going to look at
13 what pricing would be economically efficient to
14 consumers and then think about what pricing between
15 copyright owners and copyright users is going to
16 promote efficient pricing to consumers.

17 JUDGE STRICKLER: Is that promotion of
18 efficiency that you are talking about, is that a
19 consequence of the fact that there may be derived
20 demand from the upstream level from what exists at
21 the downstream level?

22 THE WITNESS: I don't think of it as
23 being tightly connected to that.

24 JUDGE STRICKLER: Okay. Thank you.

25 BY MR. ASSMUS:

1 Q. Thank you. Turning to the second two
2 factors that you have taken together, how is it that
3 an economist can identify a notion of fairness?

4 A. Fairness is not a notion that has a
5 unique definition within economics, but the Shapley
6 value is a well-accepted notion in cooperative game
7 theory within economics. And it has been
8 interpreted in the literature as providing a notion
9 of fairness.

10 And, in particular, it is trying to take
11 into account the relative contributions of the
12 various parties. And that's in line with what's the
13 language of the third 801(b) factor.

14 JUDGE STRICKLER: Excuse me. You
15 mentioned the Shapley values, as you are applying
16 them here, are an outcome of cooperative game
17 theory. Can you distinguish for us between
18 cooperative game theory and non-cooperative game
19 theory?

20 THE WITNESS: Sure. Game theory is often
21 divided into these two groups, non-cooperative game
22 theory and cooperative game theory. And
23 non-cooperative game theory is looking at strategies
24 played by individual players within the structure of
25 a particular game.

1 For example, how are you going to bid at
2 an auction? So you give the structure, the
3 structured interaction, and look at the strategies
4 the players are going to use within a structured
5 interaction, within the game.

6 Cooperative game theory is much less
7 structured. So cooperative game theory takes the
8 viewpoint that by coming together, the coming
9 together of various parties will create value. For
10 example, the coming together of copyright owners and
11 copyright distributors can create value.

12 And it doesn't specify the particular
13 procedures by which that value is created, but is
14 focused on appropriate ways to divide it among the
15 players that have come together to create the value.

16 JUDGE STRICKLER: Thank you.

17 THE WITNESS: You are welcome.

18 BY MR. ASSMUS:

19 Q. Did the type of game theory approach that
20 the Shapley value methodology represents, was that
21 in your view a benefit to using it in this manner?

22 A. I thought it was a particularly good fit
23 for the goals that are laid out in the second and
24 third 801(b) factors because it is a way for an
25 economist to operationalize the notion of fairness.

1 And it is fairly tightly tied to this
2 idea of reflecting the relative roles of Copyright
3 Owners and copyright users.

4 Q. And I am in danger of getting a little
5 ahead of myself. Would you expect the result of a
6 Shapley value analysis to approximate market
7 outcomes?

8 A. No. The Shapley value is not a model of
9 a market interaction. It is not trying to mimic
10 what you might expect in a market. It is trying to
11 get at what division would embody this notion of
12 fairness or the reflecting of the relative roles of
13 the parties that come together.

14 JUDGE STRICKLER: So is it fair to say
15 you are not using the Shapley value to set forth a
16 reasonable market rate; you are using the Shapley
17 value to potentially adjust whatever rate you are
18 find in the market?

19 THE WITNESS: That's correct.

20 JUDGE STRICKLER: Thank you.

21 BY MR. ASSMUS:

22 Q. And if we could finally, in terms of this
23 overview, turn to the fourth factor, the minimizing
24 disruption factor. How is it that you interpreted
25 that factor through economics?

1 A. Again, I am going to look at the
2 benchmarks, and so I am going to interpret that
3 factor as saying we should try to stay relatively
4 close to relevant benchmarks.

5 And in terms of relevant benchmarks, I'm
6 going to focus on rates and structures that I think
7 are likely to embody the 801(b) factors.

8 Q. In connection with your testimony, you
9 prepared a summary of your conclusions?

10 A. Yes, I have.

11 Q. If we could have that next slide. And if
12 you could walk the panel through, at a high level,
13 the primary conclusions you reached.

14 A. These primary conclusions are, first,
15 that mechanical royalty rates that reflect the
16 801(b) factors are lower than current levels. Two
17 points beneath that, the Shapley value analysis
18 predicts that fair royalties reflecting relative
19 contributions are lower than current levels. And
20 benchmarks indicate that a decrease in rates is
21 appropriate.

22 The second high-level conclusion,
23 economic efficiency favors a percentage of revenue
24 rate structure over a per-user or a per-stream
25 structure. And, finally, that the 80 cent

1 per-subscriber minimum protects against a
2 substantial increase in rates from current levels
3 and addresses revenue measurement, but the 50 cent
4 per-subscriber floor should be eliminated or
5 adjusted.

6 Q. In connection with your work, have you
7 become familiar with Spotify and its services?

8 A. I have learned a lot, yes.

9 Q. Could you briefly describe Spotify's
10 primary services in the United States?

11 A. Spotify has two primary services. One is
12 subscription streaming service, interactive
13 streaming service and the other is an ad-supported
14 streaming service.

15 Q. And does Spotify offer any discounting
16 plans?

17 A. Yes, my understanding is that Spotify
18 offers a normal plan, an undiscounted plan at \$9.99
19 per subscriber per month, but also offers a student
20 plan that is discounted and a family plan for the
21 subscription service.

22 The ad-supported service is free to the
23 user in the sense that there is no out-of-pocket
24 payment, but there are ads. So the consumer, the
25 listener pays a price as an economist might think of

1 it in terms of being subjected to advertisements.

2 Q. And in addition to your becoming familiar
3 with Spotify, have you become familiar to some
4 extent with the revenue structure of the music
5 industry?

6 A. Yes.

7 Q. And have you prepared a slide reflecting
8 that history of revenues?

9 A. Yes, I have.

10 Q. If we could have that slide, please.
11 And this figure was taken from your
12 report?

13 A. This is figure 2 in my written direct
14 testimony.

15 Q. And in connection with your economic
16 conclusions, what is it that you took from this time
17 series?

18 A. So a couple things that I think were
19 important in this graph. You see the dominant trend
20 here, you see the increase in music industry revenue
21 until 1999 and then a decline after that.

22 And that has corresponded with changes in
23 technology that have, in particular, changes in
24 technology that facilitated piracy. So you see a
25 large decline in industry revenue until around 2011,

1 and then a leveling off of industry revenue.

2 As, for example, CD sales, the yellow
3 here continue to decline, but are balanced by an
4 increase in subscription and ad-supported streaming
5 revenue.

6 There are two vertical bars on the graph;
7 one marking the launch of Napster, which people have
8 related to increases in piracy, and the other
9 identifying the entry by Spotify and the beginning
10 of the U.S. development of interactive streaming.

11 Q. It is a little hard to see from this
12 graph, but does this reflect revenue growth in the
13 last several years?

14 A. There has been revenue growth in the last
15 few years. It is subtle in here. The publisher
16 revenue has increased, for example, in the last few
17 years.

18 JUDGE STRICKLER: This chart doesn't
19 break out publisher revenue, though, does it?

20 THE WITNESS: No, it doesn't. This is
21 overall industry revenue. I should probably be a
22 little bit careful. It is retail revenue with the
23 exception of the green SoundExchange distributions.

24 So the way the RIAA provided the data,
25 the revenue associated with non-interactive

1 streaming and satellite radio, instead of reporting
2 retail revenue, they are reporting SoundExchange
3 distributions.

4 So it is -- these numbers are -- the
5 number for the SoundExchange distributions is
6 understating revenue from non-interactive streaming
7 and satellite radio, but the rest should be retail
8 level revenues.

9 BY MR. ASSMUS:

10 Q. And when does the data on this chart end?

11 A. This is ending in 2015.

12 Q. And have you prepared a slide reflecting
13 2016 data?

14 A. Yes, I have.

15 Q. If we could have that slide.

16 A. This figure is figure 1 in my report.

17 And it is using the most recent data that I have
18 available to me, which is for the first half of
19 2016. And it is taking those same categories from
20 the previous graph and just displaying them as a pie
21 chart, so you can see the relative sizes of the
22 different components of the industry.

23 So you see subscription streaming there
24 at 30 percent. And then notice also the two types
25 of downloads, downloaded singles and downloaded

1 albums. They are shown there as 15 percent and
2 16 percent.

3 Adding those together, you get
4 31 percent. So as of the first half of 2016, the
5 size of subscription streaming was comparable to the
6 download market.

7 Q. And was that --

8 JUDGE STRICKLER: Question, just
9 following up on what you had said before about the
10 SoundExchange distribution, this time showing it in
11 your pie chart. You said it understates the actual
12 revenue.

13 Is that because the SoundExchange
14 distributions were only going to the record
15 companies and it doesn't show what the actual
16 services are retaining as revenues?

17 THE WITNESS: Exactly. So I will need to
18 correct for that understatement when I do the
19 Shapley value analysis. So notice in this pie
20 chart, really the size of subscription streaming,
21 all the other slices besides the green should be
22 narrowed slightly to account for the understatement
23 in the revenue from non-interactive streaming
24 satellite radio.

25 JUDGE STRICKLER: For example, satellite,

1 exactly, doesn't -- I can't recall at the moment,
2 but say it is 11 percent of revenue. So the other
3 89 percent of satellite revenue is not accounted for
4 in this pie chart?

5 THE WITNESS: It would be something like
6 that, yes. I would need to do the calculations, but
7 there is an -- the green slice of the pie should be
8 larger.

9 JUDGE STRICKLER: As measured by
10 whatever percent of revenue is retained by Sirius XM
11 or by any of the non-interactive services?

12 THE WITNESS: Exactly. So all the other
13 pie slices should shrink proportionally as it
14 accommodates that adjustment.

15 JUDGE STRICKLER: Do you know how much
16 larger the -- what you have called the SoundExchange
17 distributions, and I will now call in my question
18 the non-interactive and satellite sphere, how much
19 larger that percentage should be based on the data
20 that you have looked at or you can't say?

21 THE WITNESS: I have an estimate of that
22 that I use --

23 JUDGE STRICKLER: Is it already in the
24 record?

25 THE WITNESS: It is in my written direct

1 testimony. And so when I do the Shapley value
2 analysis, I want the real number for that slice.

3 JUDGE STRICKLER: And you found it, or
4 you estimated it?

5 THE WITNESS: I estimated it.

6 JUDGE STRICKLER: And when you estimated
7 it, what does that 12 percent become?

8 THE WITNESS: I'd have to look. I just
9 don't remember sitting here right now. I'm sorry.

10 JUDGE STRICKLER: Okay.

11 THE WITNESS: We could get out a
12 calculator. The numbers are in the appendix talking
13 about the Shapley value calculation.

14 JUDGE STRICKLER: Perhaps it comes up
15 when you discuss the Shapley analysis.

16 THE WITNESS: I could look for it now
17 too, but it would take a second.

18 JUDGE STRICKLER: Let's not do that.

19 BY MR. ASSMUS:

20 Q. The adjustment you have been discussing
21 with Judge Strickler, would that affect the relative
22 size of subscription streaming compared to CDs and
23 downloads?

24 A. No. It wouldn't affect the relative
25 sizes of any of the other slices of the pie. They

1 would all shrink proportionally. So my comment that
2 downloads, singles and albums, is comparable to
3 subscription streaming, that is not affected by the
4 green slice being smaller than it should be.

5 And I use the Pandora and Sirius XM's
6 10-K filing to get the data needed to make the
7 adjustment to that green slice.

8 Q. And was there any particular aspects of
9 this chart that you deemed important in connection
10 with your economic analysis?

11 A. I thought it was important to note
12 because I'm going to use downloads and CDs as a
13 benchmark, so important to me to see that downloads
14 are comparable to subscription streaming and that
15 CDs are still a substantial chunk of industry
16 revenue.

17 Q. In connection with your testimony today,
18 have you prepared a chart of U.S. music publishing
19 revenue?

20 A. Yes, I have.

21 Q. If we could have the next slide.

22 A. This is figure 3 from my written direct
23 testimony. It is publisher revenue from 2006 to
24 2015. And you see the decline in publisher revenue,
25 see it level out, and then it has taken an up-tick

1 in increasing over the last few years.

2 Q. And was that important for your analysis?

3 A. Yes. This was also important to see that
4 the evolution of this, the initial decline due to
5 piracy and other changes in the industry has been
6 stopped and now seemingly reversed, and in large
7 part that has been related to the rise of contracted
8 streaming.

9 Q. I would like to turn now to your
10 benchmarking analysis. Can you explain how you used
11 benchmarks to inform reasonable mechanical royalty
12 rates?

13 A. I looked for benchmarks that I think are
14 likely to reflect the 801(b) factors. And then I
15 give the interpretation to that fourth 801(b) factor
16 that it would be less disruptive if we were to stay
17 closer, relatively closer to relevant benchmarks.
18 So I want to look at what the relevant benchmarks
19 suggest for royalties and compare them to the
20 current levels.

21 Q. And in this matter, which benchmarks did
22 you identify as appropriate?

23 A. I identified the CD mechanical royalty,
24 the digital download mechanical royalty, and the
25 current royalties that are used for interactive

1 streaming.

2 Q. So two benchmarks?

3 A. It is -- it is -- I think of it as three.
4 The CDs, the digital downloads, the personal digital
5 downloads, the PDDs and the current rates.

6 Q. And when did the parties enter those
7 benchmarks?

8 A. The current interactive streaming rates
9 would have been 2012. And the PDD and CD rates
10 would have been 2016.

11 Q. Could you describe taking each of those
12 in turn, the nature of those two benchmarks?

13 A. Not -- I'm sorry, I am not sure what you
14 are asking.

15 Q. Sure. Were they either the result of a
16 market agreement or a --

17 A. No, those were settlements. But both the
18 -- my understanding is both the current interactive
19 streaming rates and the PDD and CD rates are the
20 result of a settlement, separate settlements.

21 Q. There has been testimony in this case or
22 a phrase used in this case in the briefing and the
23 testimony about the so-called shadow of the
24 compulsory license.

25 What does that phrase mean to you?

1 A. When I think about the negotiations among
2 copyright owners and copyright users with respect to
3 these rates, my understanding is that if there were
4 a failure to reach an agreement, that the parties
5 would have access to this Royalty Board to make a
6 determination about rates.

7 So if the rates were -- if the
8 negotiation were going in a direction that moved the
9 rates too far away from what would be determined by
10 this Board, the relatively disadvantaged party would
11 have the incentive to come before the Board.

12 So I think of the 801(b) factors as being
13 reflected in those settlements.

14 Q. Was it a concern to you in using those
15 two benchmarks or three benchmarks that they were
16 set in the so-called shadow of the compulsory
17 license?

18 A. No, it wasn't a concern. I thought of it
19 as an advantage. I was thinking -- I was looking
20 for rates that I thought were likely to reflect the
21 801(b) factors. And because the 801(b) factors
22 would have determined the disagreement payoff of the
23 parties, of both parties in the negotiation, I would
24 expect those factors to be reflected in the ultimate
25 settlement.

1 JUDGE BARNETT: Pardon me, counsellor.
2 You need to leave that passageway to the emergency
3 door clear, please, at all times. Thank you.

4 JUDGE STRICKLER: Just for clarification,
5 when you say the shadow is not a concern because the
6 parties would be pulled towards what the Judges
7 would do, in fact, they would be pulled to what they
8 predict the Judges would do, right?

9 THE WITNESS: That's right. I agree.

10 JUDGE STRICKLER: All right.

11 BY MR. ASSMUS:

12 Q. Now, we saw before that PDDs and CDs are
13 a shrinking form of distribution. My question is
14 was it a concern to you that one of your two
15 benchmarks, one of your three benchmarks, depending
16 on how you count, was applied to potentially a
17 shrinking market?

18 A. I guess it might have been a concern if
19 it had shrunk already to the point of being some de
20 minimis component of the music industry, but looking
21 at the, for example, the pie chart figures 1 and 2
22 in my written direct testimony, I think they are a
23 substantial component of music revenue. And
24 downloads, in particular, are comparable to
25 interactive streaming.

1 So I think given current economic
2 conditions, they represent reasonable benchmarks.

3 MR. ASSMUS: Your Honor, I am moving into
4 some restricted slides and testimony. Dr. Marx has
5 access to confidential information of all the
6 parties and her report does reflect the confidential
7 information of all the parties.

8 However, I have arranged my direct
9 examination so that we will only reveal Spotify
10 data. And so we would ask that the Spotify internal
11 counsel be permitted to stay.

12 MR. SEMEL: No objection here.

13 JUDGE BARNETT: Thank you. Anyone in the
14 courtroom who does not have permission to see
15 confidential or restricted information, please wait
16 outside. And, Mr. Assmus, your representation is
17 this will only be Spotify restricted information?

18 MR. ASSMUS: Correct. I realize I
19 omitted Mr. Will Page, who is also privy to Spotify
20 information. I would like him to stay as well.

21 JUDGE BARNETT: Certainly.

22 MR. ASSMUS: Thank you.

23 (Whereupon, the trial proceeded in
24 confidential session.)

25

1 O P E N S E S S I O N

2 BY MR. ASSMUS:

3 Q. Dr. Marx, did either the benchmarking
4 analysis that you conducted or your Shapley value
5 analysis inform the royalty rate structure?

6 A. The benchmarking lightly in the sense
7 that you see in current rates a particular
8 structure, and you take the view of the fourth
9 801(b) factor that is staying relatively close to
10 current structure, would be relatively less
11 disruptive, then we have that benchmark, but
12 otherwise I don't think of those analyses as
13 speaking to the structure of the rates.

14 Q. So the Shapley value analysis doesn't
15 counsel one way or another on the rate structure?

16 A. I don't think of the Shapley value
17 analysis of having anything to say about the
18 structure of the rates, just the levels.

19 Q. And did you do any analysis that would
20 inform the panel with respect to an appropriate rate
21 structure?

22 A. Yes, I did.

23 Q. And what was it that you did?

24 A. I looked at what economic theory has to
25 say about the advantages and disadvantages of

1 various rate structures, such as a percentage of
2 revenue, a per-subscriber rate or per-stream rate.

3 Q. And if we could have the next slide, the
4 final slide, in fact.

5 Does this figure illustrate one of the
6 economic efficiency points you would like to make?

7 A. Yes, it does.

8 Q. And how is it that it does that?

9 A. This is a graphic that probably any
10 introductory microeconomics student has probably
11 seen, but it depicts quantity on the horizontal axis
12 and price on the vertical axis and a demand curve.

13 And economics teaches that the demand
14 curve embodies the marginal willingness to pay of
15 the consumers. So the demand curve embodies some
16 consumers are willing to pay a high amount and other
17 consumers are willing to pay a low amount. And
18 economics teaches that the total surplus, overall
19 economic efficiency is maximized when the price is
20 set equal to marginal cost.

21 In this case, we will think of the
22 marginal cost of an additional stream as being
23 roughly zero. And so --

24 JUDGE STRICKLER: If I could just
25 interrupt you for a second. When you say the

1 marginal cost of an additional stream is zero, are
2 you referring to marginal physical cost?

3 THE WITNESS: I am not sure what you mean
4 by "physical." So the cost of sending the signal,
5 the stream to a listener.

6 JUDGE STRICKLER: That's what I meant by
7 physical cost. I don't know if that's a good way to
8 describe it, but I was trying to distinguish it from
9 marginal opportunity cost.

10 You are assuming from that that there is
11 no additional cost, marginal cost of
12 substitutability that when someone listens to one of
13 the services that's depicted here, otherwise would
14 have -- would have listened and subscribed to some
15 other service?

16 THE WITNESS: That's right. And if we
17 had seen, for example, in the benchmarking that the
18 royalties paid on CDs and DVDs were higher than for
19 streaming, then that starts to be more of a concern,
20 but the royalties are higher for streaming than
21 those DVDs and CDs and DVDs.

22 And in my rebuttal report I focus on the
23 substitution effect relative to a number of other
24 outlets. And those other YouTube and other outlets
25 pay lower royalties than interactive streaming.

1 And so if anything, the opportunity cost
2 is negative or small. So it doesn't seem like
3 that's going to be important in this particular
4 case.

5 JUDGE STRICKLER: Thank you.

6 BY MR. ASSMUS:

7 Q. What lessons do you draw from this
8 economic analysis with respect to the appropriate
9 rate structure?

10 A. This is showing that if you had
11 subscribers, listeners, who were charged zero for an
12 incremental stream, they would choose the efficient
13 level of streaming. And we would capture as surplus
14 all of the colored area here, so that the green and
15 the blue and the reddish area there.

16 However, if a consumer is charged a
17 positive price per stream, then they are going to
18 reduce the number of streams they choose to
19 purchase. You can think of them as being less
20 willing to stream songs that have a low or uncertain
21 value to them.

22 And you are going to get the little dead
23 weight loss, the DWL, triangle in the corner. That
24 is surplus that is not captured. Now, the consumer
25 surplus, the green triangle, is an area that a

1 streaming service can capture part of by having a
2 subscription fee. So if you were a consumer who is
3 going to get surplus from streaming through an
4 interactive streaming service, then you may be
5 willing to pay a subscription fee to be part of that
6 service.

7 The higher-willingness-to-pay consumers
8 would be willing to pay more than
9 lower-willingness-to-pay consumers to subscribe.
10 And there may be consumers whose willingness to pay,
11 particularly their willingness to pay out-of-pocket
12 may be sufficiently low but they are not willing to
13 subscribe to a service, not willing to pay
14 out-of-pocket for a service.

15 JUDGE STRICKLER: Don't you make
16 reference in your report to how ad-supported
17 services could bridge that gap with regard to the
18 dead weight loss?

19 THE WITNESS: Absolutely. So having
20 different means of price discrimination is going to
21 allow greater efficiency to be achieved. If we have
22 a way for low willingness to pay consumers to access
23 music, for example, student discounts, family
24 discounts or ad-supported streaming, where
25 low-willingness-to-pay consumers can still access

1 music in a way that still allows some monetization
2 of that provision of that service.

3 JUDGE STRICKLER: Would it be possible,
4 maybe it is not so, a general uncertain question,
5 would it be possible to depict on this simple
6 diagram what the producer surplus would be, if any,
7 if you had ad-supported services where the consumer
8 was paid nothing or does the platform nature of that
9 make this diagram not applicable?

10 THE WITNESS: I don't think it is a good
11 fit for that. I'd have to think about a useful way
12 to depict it. I have to think about that. I am not
13 sure if this is a good fit for that.

14 JUDGE STRICKLER: Thank you.

15 BY MR. ASSMUS:

16 Q. And in your view, how is it that a
17 percentage-of-revenue structure is consistent with
18 this economic principle?

19 A. Percentage-of-revenue royalty is
20 beneficial for supporting this type of structure,
21 for supporting a payment scheme for consumers that
22 has zero price for incremental streams, and that
23 supports services in -- provides them incentive to
24 try to find ways to serve low-willingness-to-pay
25 consumers.

1 In contrast, if you have a per-subscriber
2 fee, that is going to disincentivize Services from
3 trying to serve low-willingness-to-pay subscribers.

4 A per-stream fee introduces a number of
5 distortions. It provides an incentive for
6 introducing per-stream fees to consumers, which is
7 what creates the dead weight loss triangle in the
8 diagram like this.

9 It introduces incentives for capping
10 streaming, which is a reduction in quantity that
11 would be inefficient. It reduces incentives for
12 Services to attract and retain the types of
13 consumers who are going to stream lots of music.
14 And it takes away incentives for the types of
15 innovative activity that many of the Services have
16 engaged in to try to reduce latency, and so there
17 are fewer delays in between songs, creates an
18 incentive for them to skew curative playlists
19 towards longer songs. There are a number of
20 distortions that the per-stream fee puts in place
21 that can raise a number of concerns with that.

22 JUDGE STRICKLER: A question for you with
23 regard to figure 25. Figure 25 is basically a
24 static analysis, economic analysis, not a dynamic
25 analysis?

1 THE WITNESS: That's right.

2 JUDGE STRICKLER: So one of the problems
3 that's endemic to this intellectual property
4 economics in this particular proceeding, of course,
5 is that even if you are able to tease out
6 willingness to pay all the way down the demand
7 curve, it creates still -- leaves unresolved the
8 dynamic question of how do Copyright Owners, future
9 Copyright Owners get paid and have an incentive to
10 be paid sufficiently so that their costs are covered
11 and whatever profits, normal profits or rents they
12 are able to obtain can be achieved?

13 So how does this analysis -- how would
14 you apply this analysis in a context that still made
15 certain from a rate-setting perspective that we
16 solve the dynamic problem of how to make sure there
17 is sufficient payment to the Copyright Owners?

18 THE WITNESS: This analysis suggests that
19 from the perspective of economic efficiency, that a
20 percentage of revenue royalty is the most
21 beneficial, but you need to make sure that you're
22 measuring revenue appropriately and guarding against
23 mis-measurement of revenue.

24 JUDGE STRICKLER: Separate and apart from
25 the mis-measurement problem, when you say

1 percentage-of-revenue pricing, as an economist you
2 might call that Ramsey pricing? You need to say
3 your answer.

4 THE WITNESS: Oh, Yes, sorry.

5 JUDGE STRICKLER: But whether Ramsey
6 pricing covers Copyright Owners' costs, licensor
7 costs, and whatever profits they are entitled to in
8 the marketplace or able to achieve in an unregulated
9 market, that could just be happenstance, right?

10 There is no reason that Ramsey pricing
11 will necessarily cover the costs and the profits
12 that are necessary for the Copyright Owners to
13 realize, right?

14 THE WITNESS: Okay, I have to think that
15 through. The Shapley value analysis included the
16 costs. So that is looking at a royalty -- that is
17 requiring a royalty rate from copyright users to
18 copyright owners that, first of all, covers all of
19 the copyright owners' costs.

20 JUDGE STRICKLER: Because costs are
21 inputted into the analysis?

22 THE WITNESS: Yes. And then, second of
23 all, gives them on top of those costs a level of
24 profit equal to their Shapley value. So that
25 analysis speaks to payments that would not only

1 cover copyright owners' costs but also give them a
2 level of profit on top of that.

3 JUDGE STRICKLER: But the level of profit
4 would be a level of profit derived from the Shapley
5 analysis, not as you pointed out before, the Shapley
6 analysis is not a market-based, so in the market
7 copyright owners hypothetically could receive a
8 higher profit than what the Shapley value provides.

9 So how do you -- how do you compare, if
10 at all, the market profits versus the Shapley
11 profits?

12 THE WITNESS: I think the profits that
13 the copyright owners would have in an unconstrained
14 market are likely higher than the profits they would
15 have that would reflect the 801(b) factors.

16 JUDGE STRICKLER: What makes you conclude
17 that?

18 THE WITNESS: Because I think of the
19 publishers and the record labels as having
20 substantial market power.

21 JUDGE STRICKLER: And the market power
22 you are talking about now, I know we have talked
23 about market power a lot, which market power are you
24 talking about?

25 THE WITNESS: A combination of three

1 things, I guess. First, they're aggregating the
2 rights to multiple works that combined argued as
3 must have. Second of all, they have a large market
4 share. And, third, they have these ownership
5 linkages that they are combined larger than I think
6 their individual shares and publishing and record
7 labels suggest.

8 JUDGE STRICKLER: Would you include the
9 Cournot complementarity of the sound recording right
10 and the musical works in that power?

11 THE WITNESS: Yes, I would.

12 JUDGE STRICKLER: Thank you.

13 BY MR. ASSMUS:

14 Q. You had mentioned in response to one of
15 Judge Strickler's questions the issue of measuring
16 revenue in a percentage-of-revenue model.

17 Is measuring revenue a concern to you?

18 A. It is a concern to me.

19 Q. And what is it -- you are familiar with
20 Spotify's rate proposal?

21 A. Yes, I am.

22 Q. And does anything in Spotify's rate
23 proposal address the concern of revenue measurement?

24 A. The current structure, as well as
25 Spotify's proposal, includes not just a percentage

1 of revenue, but also an 80 cent per subscriber --
2 the rate is defined as the maximum of 10 percent of
3 revenue and the minimum of 80 cents per subscriber
4 or 21 percent of sound recording royalties.

5 So there is what I think of as a
6 back-stop to the 10.5 percent of revenue.

7 (Whereupon, the hearing proceeded in a
8 confidential session -- Pages 1901 line 7 through
9 1902 line 20.)

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19 (Whereupon, the hearing resumed in
20 open session.)

21 JUDGE STRICKLER: No. It was a bad
22 question. Let's go on. I'm sorry.

23 BY MR. ASSMUS:

24 Q. Moving on from that issue, is bundling an
25 issue in revenue measurement?

1 A. Yes, it is.

2 Q. And do you understand that's an issue for
3 Spotify or not?

4 A. In the data that I was looking at, I
5 don't believe there were any bundled offerings
6 during that period of time. My understanding is
7 that there is currently an offer that is combined
8 with the New York Times.

9 Q. If we can go back into restricted session
10 very briefly, I will be finished.

11 JUDGE BARNETT: Momentarily, if you do
12 not have access to restricted or confidential
13 information, if you will wait outside, we will go
14 directly into our afternoon recess as soon as these
15 questions are done.

16 (Whereupon, the trial proceeded in
17 confidential session.)

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1 O P E N S E S S I O N

2 JUDGE BARNETT: Please be seated.

3 Cross-examination, Mr. Semel?

4 MR. SEMEL: Thank you. And we are in
5 open session. I will have a small portion, but not
6 for a while. Hopefully we can stay in open session.

7 I will note that we have some clips we
8 may or may not need from depositions. While the
9 deposition is technically restricted, I have spoken
10 with counsel and there is nothing I would be using
11 from it that would be restricted, so I don't think
12 we would need to clear the courtroom. And maybe we
13 don't even need to get to that.

14 JUDGE BARNETT: Okay. Thank you.

15 CROSS-EXAMINATION

16 BY MR. SEMEL:

17 Q. Good afternoon, Dr. Marx.

18 A. Afternoon, Mr. Semel.

19 Q. You may remember we met before at your
20 deposition.

21 A. Yes, sir.

22 Q. Nice to see you again.

23 A. Good to see you.

24 Q. I will start by offering my condolences
25 to you on your basketball team. If it is any

1 consolation, it busted my bracket too.

2 As you testified, you undertook a
3 benchmark analysis in connection with your report,
4 correct?

5 A. That was one part of it, yes.

6 Q. And that benchmark analysis was focused
7 on rates that were directly tied to Section 115
8 proceedings, proceedings under the 801(b) factors,
9 correct?

10 A. I am not sure what you mean by "directly
11 tied," but I was looking for rates that I thought
12 were likely to reflect the 801(b) factors.

13 Q. And by -- and by rates that were governed
14 by the 801(b) factors, you interpreted that to mean
15 rates determined in connection with regulatory
16 proceedings that were governed by the 801(b)
17 factors, correct?

18 A. Yes.

19 Q. And you rejected the use of rates that
20 were not governed by those factors and thus not
21 determined in connection with regulatory proceedings
22 governed by the 801(b) factors, correct?

23 A. I think I focused on those particular
24 benchmarks, and I rejected the other ones as not
25 being as good as the ones that I focused on.

1 Q. And, for example, your reason for
2 excluding sound recording agreements as benchmarks
3 was because you didn't have a reason to believe that
4 they would reflect the 801(b) factors, correct?

5 A. That's correct.

6 Q. And that's because they are not governed
7 under a proceeding that involves the 801(b) factors,
8 correct?

9 A. Yes.

10 Q. And as part of your analysis, you
11 concluded that you wouldn't have a reason to believe
12 market outcomes would likely reflect the 801(b)
13 factors?

14 A. I agree.

15 Q. Which led you to reject in general
16 benchmarks that were negotiated agreements, correct?

17 A. I didn't think those were the best
18 benchmarks.

19 Q. And your benchmark analysis focused, in
20 particular, on the fourth 801(b) factor, correct? I
21 think you refer to it as the D factor in your
22 report, correct?

23 A. Yes.

24 Q. And that is the one that involves
25 industry disruption, correct?

1 A. That's correct.

2 Q. And you felt that benchmarks that
3 reflected generally prevailing industry practices
4 would be those that are consistent with the fourth
5 801(b) factor, correct?

6 A. No, that doesn't sound quite right.

7 Q. I believe in your demonstrative, I think
8 on slide 1, when you talk about your economic
9 interpretation, you mention using current industry
10 practices as a benchmark to minimize disruption.

11 So really you were not merely looking for
12 things under the 801(b) factors but you were looking
13 for current industry practices, correct?

14 A. There is an intersection there. The
15 current -- one of my benchmarks is the current rate,
16 which both reflects the 801(b) factors and define
17 current industry practice.

18 Q. Right. But you were not looking for
19 benchmarks that did not reflect current industry
20 practice, correct?

21 A. Correct.

22 Q. And when you look at benchmarks that are
23 both determined under 801(b) proceedings and reflect
24 current industry practice, that really leaves you
25 with the current rates, correct?

1 A. I view the PDD and CD rates and the
2 current rates for interactive streaming as all three
3 reflecting both 801(b) factors and current industry
4 practice.

5 Q. Right. But I mean that the focus of your
6 or the principles that you utilized in determining
7 your benchmarks really left you no other option
8 except the current rates under Subpart A, B, and C,
9 correct?

10 A. Given my goals and the analysis, I
11 thought that the three benchmarks that I identified
12 were the most appropriate ones.

13 Q. And your benchmark analysis, in doing
14 your benchmark analysis, you do not evaluate
15 whether, if you were trying to find a benchmark to
16 fulfill another 801(b) factor, such as the second or
17 third factor, whether that might lead you to
18 different benchmarks than the ones you identified as
19 consistent with the fourth factor, correct?

20 A. Okay. I used the benchmark analysis
21 primarily to speak to the fourth 801(b) factor. It
22 is also true that in looking for benchmarks that
23 likely reflect the 801(b) factors, they are likely
24 reflecting all of them, but the focus of my
25 benchmark analysis was to speak to the fourth 801(b)

1 factor.

2 Q. Right. And you did not analyze whether
3 or not different benchmarks might potentially be the
4 conclusion, if you were trying to fulfill the second
5 and third policy objectives, rather than the fourth
6 policy objective, correct?

7 A. I used a different economic
8 interpretation of the first, second, and third
9 801(b) factors, and my interpretation of those was
10 not based on a benchmark analysis.

11 Q. Right. And I am just trying to clarify
12 that your benchmark analysis did not -- that your
13 benchmark analysis as guided by the fourth factor,
14 in fact, does not speak to the second or third or
15 first factors, correct?

16 A. Only to the extent that these benchmarks
17 I identified likely reflect the 801(b) factors,
18 likely reflect all of them, and so provide, through
19 that avenue, they provide some benchmarking to all
20 the 801(b) factors, but I viewed my benchmark
21 analysis as primarily targeted at the fourth 801(b)
22 factor.

23 JUDGE STRICKLER: Is it fair to say that
24 your analysis does not involve finding market rates,
25 and then applying the four factors but, rather,

1 approaches the problem from a different direction?

2 THE WITNESS: That's correct.

3 JUDGE STRICKLER: Thank you.

4 BY MR. SEMEL:

5 Q. And I may have been circling around this,
6 so I am just going to try to do it in the way I did
7 it in the deposition. If you were trying to fulfill
8 the second and the third policy objectives using a
9 benchmark, they would point you to potentially
10 different benchmarks, correct?

11 A. The second and third factors are talking
12 about fair income and fair return and reflecting
13 relative contributions. If you are going to try to
14 approach that through a benchmark analysis, you
15 would want benchmarks that you thought reflected
16 those factors.

17 And I guess if you are doing that, you
18 might end up back with those same benchmarks, to the
19 extent that they embodied all of the 801(b) factors,
20 but I didn't think that was the best way for
21 economics to inform this Court about the second and
22 third 801(b) factors.

23 Q. Understood. And when you said just now
24 that they might lead you to the same benchmarks,
25 they also might not, and that's not a question you

1 analyzed, correct?

2 A. That's correct.

3 Q. And I think you mentioned this on your
4 direct, but I just want to clarify, the benchmarks
5 that you have identified in this case don't speak
6 one way or another to an appropriate rate structure
7 that should be used, correct?

8 A. Only to the extent that the current --
9 the rate structure in the current rates that offers
10 a particular rate structure, and if you think that
11 the fourth 801(b) factor of avoiding disruption
12 means that you might like to stay relatively close
13 to current structures, then that benchmark is
14 informative as to rate structures.

15 But my Shapley value analysis, I think of
16 as not being informative one way or the other about
17 structure.

18 Q. Right. And in a sense it might speak to
19 the idea of rolling the status quo forward, but it
20 doesn't speak conceptually to a particular rate
21 structure, correct?

22 A. The only analysis that I did that speaks
23 specifically from fundamental, economic fundamentals
24 about the rate structure was the analysis I did
25 related to the first 801(b) factor.

1 Q. And a benchmark analysis that was
2 assessing fair outcomes, would generally have, from
3 an economic perspective, some component to it of an
4 analysis of fair market outcomes, correct?

5 A. As I mentioned before, economics doesn't
6 have a unique definition of fair, so it is going to
7 depend on what you mean by "fair."

8 JUDGE STRICKLER: A question for you.
9 And this is a question I will confess that always
10 bothers me.

11 If you've got fair market value because
12 counsel asked the question about fair market value,
13 does fair, in your mind, as an economist, is that an
14 adjective that describes "market value" or does fair
15 describe the type of market that creates the value?

16 THE WITNESS: When I hear the word "fair
17 market value," I as an economist, I think of the
18 three words fair market value as all together, the
19 three of them together, fair market value, as having
20 a particular meaning.

21 And that's thinking of, in valuation
22 exercises, thinking about having a willing buyer and
23 a willing seller in a hypothetical market where
24 there is good information and no compulsion to
25 trade. There is a whole structure behind this

1 notion of fair market value.

2 And I am not attributing any particular
3 meaning to the word "fair" there, that all together
4 those three words mean a set of analyses to me.

5 JUDGE STRICKLER: As you just described?

6 THE WITNESS: Yes.

7 JUDGE STRICKLER: Thank you.

8 BY MR. SEMEL:

9 Q. And you have opined in other proceedings
10 that benchmarks for fair market rates, in fact, the
11 benchmarks arising under the influence of regulatory
12 proceedings are, in fact, not the best benchmarks
13 for determining fair market rates, correct?

14 A. It would depend.

15 Q. Do you recall your testimony in, I think
16 you mentioned earlier, the Pandora versus ASCAP rate
17 court case?

18 A. In generalities, yes.

19 Q. And do you recall whether or not you took
20 a position as to what the best types of benchmarks
21 were in that case with respect to whether they were
22 under the influence of regulatory proceedings?

23 A. Yes. I identified the benchmarks in that
24 matter that I thought were best for the purposes I
25 have in mind.

1 Q. And do you agree that in the context of
2 that case, you felt that the best benchmarks, if you
3 could find them, are benchmarks that arise outside
4 of the influence of the rate court?

5 A. In that structure, looking at fair market
6 value, I was guided by that objective and was
7 looking for fair market value rates. So I thought
8 market-determined rates were most appropriate there.

9 Q. Right. And in this context, in
10 determining fair market rates, you also believe that
11 as an economist, you would prefer to use a license
12 that was negotiated competitively, correct?

13 A. If I were looking for fair market rates,
14 yes.

15 Q. And, indeed, for a rate to be a
16 competitive benchmark, it has to reflect fair market
17 value, correct?

18 A. For it to be a competitive rate, it has
19 to reflect fair market value?

20 Q. I will read you back a Q and A from
21 Pandora. You can tell me if you remember it.

22 A. Okay.

23 Q. "Whatever the presumption, for a rate to
24 be a competitive benchmark, it has to reflect fair
25 market value? Correct."

1 A. In order for me to be comfortable using
2 something that I see as a benchmark, I would want it
3 to reflect fair market value, yes.

4 Q. I think you touched on this a little bit.

5 A. I'm sorry, in that context, where that
6 was the goal.

7 Q. Indeed.

8 JUDGE STRICKLER: You say "in that
9 context." You are referring to the rate court
10 context?

11 THE WITNESS: Yes, sir.

12 MR. ASSMUS: I would object to the
13 foundation. I am not sure, we may be talking past
14 each other, we haven't exactly established the
15 parameters of the Pandora rate court matter that Mr.
16 Semel is discussing with the witness.

17 MR. SEMEL: I think probably, since we
18 have been talking about, it is best to put it into
19 the record. It is Hearing Exhibit 2697. And
20 actually I would just enter it into evidence. I
21 think we have been discussing it. And it is a prior
22 opinion of the witness on -- on benchmarking rates.

23 JUDGE STRICKLER: Is this her oral
24 testimony in that proceeding?

25 MR. SEMEL: It is. It is a transcript of

1 her testimony.

2 JUDGE STRICKLER: Trial testimony?

3 MR. SEMEL: Yes.

4 MR. ASSMUS: I'm sorry, what was the
5 number?

6 MR. SEMEL: H-2697.

7 MR. MARKS: This is her deposition
8 transcript?

9 MR. SEMEL: No, no, the trial transcript,
10 I believe. It is the trial transcript, yeah.

11 THE WITNESS: Can I mention that there
12 was a written direct testimony, which I guess
13 wouldn't be incorporated into the trial transcript?

14 MR. SEMEL: Yeah.

15 MR. MARKS: It is not clear to me why the
16 entire transcript from a totally separate proceeding
17 with different facts, so I object to it going on.
18 If he wants to put particular pieces in, either for
19 impeachment or go directly to the testimony here, I
20 wouldn't object to that, but I don't think it is
21 appropriate to put an entire trial transcript from
22 the case in.

23 MR. ASSMUS: I wanted to second that
24 objection and make an additional foundation
25 objection with respect to that exhibit.

1 MR. SEMEL: The only point I would make
2 is we're obviously putting in reams and reams of
3 documents, so I don't think it is the number of
4 pages that makes the issue.

5 And it is testimony of this witness on
6 really the precise or similar issues that she is
7 talking about in this case, talking about
8 benchmarking, talking about the shadow of the
9 regulatory proceedings.

10 And while we can try to parse out each
11 individual Q and A, we're also bulk entering into
12 evidence here thousands of pages of documents. I am
13 not -- we can go through the process, but I also
14 don't know why that's more efficient than putting it
15 into the record.

16 JUDGE BARNETT: Well, with complete
17 disregard for what we have the ability to ingest --

18 MR. MARKS: I make one other note. It
19 appears that this isn't -- the entire written
20 testimony is not available. Some of it deals with
21 restricted matters from another proceeding and is
22 not part of the record. So it is not clear this is
23 even a complete document.

24 JUDGE FEDER: Speak up a little.

25 MR. MARKS: Sorry. Also objecting this

1 isn't even her complete testimony, some of which is
2 restricted by another proceeding.

3 JUDGE STRICKLER: If it is offered for
4 impeachment, which it sounds like it is, to show
5 conflict between her testimony here and her
6 testimony there, you are going to be reading in
7 particular pieces to us to try to establish the
8 impeachment you are going for, so why can't we just
9 go with whatever it is you are reading into the
10 record rather than putting in the whole transcript?

11 MR. SEMEL: That's fine. I was actually
12 trying to save trial time by putting it into the
13 record and leaving it to the briefing but I could
14 also read portions of it into the record.

15 JUDGE BARNETT: If there are portions you
16 want to use to impeach, then you may use those. We
17 don't need to admit into evidence in this case the
18 entire transcript.

19 MR. SEMEL: That's fine.

20 BY MR. SEMEL:

21 Q. I think we probably did part of it just
22 now, so I think I can move on now and more may come
23 up later.

24 In your direct report at page 42,
25 paragraph 108, you discuss a benchmarking approach

1 involving a conversion ratio from downloads to
2 streams. And I think this -- you touched upon this
3 in your direct examination here as well.

4 And, in particular, you discuss a
5 conversion ratio, PDDs to streams of 1-to-150
6 calculated by the RIAA. And there was some
7 testimony again that you had about this.

8 I just want to look at it a little bit
9 further, and first clarify that before reading, if
10 you can bring up just the whole press release -- oh,
11 I'm sorry. I didn't tell you what the press release
12 is.

13 So, yeah, you were in the right place.
14 Let's bring it back up, and I will get this right.

15 You discuss in paragraph 108, it is
16 really the last line we're talking about, that you
17 used the conversion ratio of PDDs to streams of
18 1-to-150, calculated by the RIAA. And you call it
19 "based on comparative consumption patterns of
20 downloads and streams."

21 So I would like to pull up Exhibit 903.

22 A. Can I just ask why my copy is formatted
23 differently than the one here? The page break is
24 happening at a different place. Is there a reason?

25 MR. SEMEL: Is there something that is

1 restricted versus non-restricted? We're showing the
2 public version on the screen, and I believe the
3 public version actually got formatted slightly
4 differently.

5 THE WITNESS: Okay.

6 MR. SEMEL: That's what I am told.

7 BY MR. SEMEL:

8 Q. Yeah, rather than show the restricted
9 version because sometimes other things on the page
10 might be restricted, we're using the public version
11 on the page.

12 A. No worries.

13 MR. ASSMUS: Do you have a public version
14 for the witness to look at?

15 MR. SEMEL: Again, I think it should be
16 identical, but I think somehow your pagination got
17 off.

18 JUDGE BARNETT: The one that's in
19 evidence is the restricted version. That's the one
20 the witness should be referring to.

21 BY MR. SEMEL:

22 Q. Yes. So if we could bring up
23 Exhibit 903. And this, correct, this is the -- I am
24 going to refer to it as a press release that you
25 consulted in order to get to this conversion ratio,

1 correct?

2 A. That looks like it, yes.

3 Q. And beyond reading this press release,
4 you did not inquire into the methodology used by the
5 RIAA to determine the conversion ratio of 150-to-1,
6 correct?

7 A. I didn't have any information in addition
8 to this on the methodology.

9 Q. And you didn't seek out any information
10 in addition to this, correct?

11 A. I asked if there was more available, and
12 I was told that was all that was available.

13 JUDGE STRICKLER: To whom did you ask?

14 THE WITNESS: My team, my support team.

15 BY MR. SEMEL:

16 Q. By that you mean the consultants that you
17 work with or --

18 A. Yeah.

19 Q. Did you reach out to the RIAA?

20 A. No, I didn't.

21 Q. Or did your support team? And --

22 JUDGE STRICKLER: I don't think you got
23 an answer to that question.

24 THE WITNESS: Sorry, I think it got a
25 little jumbled. No, I didn't reach out to the RIAA.

1 BY MR. SEMEL:

2 Q. And, in fact, we don't know who even
3 wrote this press release, correct?

4 A. I just thought of it as coming from the
5 RIAA.

6 Q. Correct. But we don't know if it was an
7 intern, we don't know the name of the author or
8 authors of this press release, correct?

9 JUDGE BARNETT: I think that was asked
10 and answered, Mr. Semel.

11 MR. SEMEL: I'm sorry.

12 BY MR. SEMEL:

13 Q. And I believe you explained in your
14 deposition that your understanding here is you are
15 in effect looking at the number of times a user
16 plays a CD or PDD to compare with a number of
17 streams, correct?

18 A. That's what I am hoping to reflect, the
19 consumption pattern.

20 Q. Right. So --

21 JUDGE STRICKLER: When you say you are
22 trying to reflect the consumption pattern, are you,
23 in fact, trying, as counsel is suggesting in his
24 question, trying to figure out how many times people
25 listen to a sound recording that they purchase, a

1 download versus how many times they stream or are
2 you looking at market displacement overall?

3 THE WITNESS: I think they are a little
4 different, but both types of measures would be
5 relevant. What I was hoping to get at was if you
6 were in a world where there were only downloads, you
7 would purchase some number of downloads, and if you
8 took that person and put them in a world with only
9 streams, they would stream a certain amount of music
10 and to try to get a conversion between the ownership
11 to access models.

12 JUDGE STRICKLER: You have no background,
13 as you testified on direct and as counsel is
14 pointing out now in his cross-examination, you have
15 no underlying data for how the RIAA came up with its
16 150-to-1 ratio and on direct you said you similarly
17 had nothing from Billboard as well.

18 Then you also referred to the Aguiar and
19 Waldfogel study. I don't want to steal your
20 thunder. Are you going to get to that?

21 MR. SEMEL: I will.

22 JUDGE STRICKLER: Be my guest.

23 BY MR. SEMEL:

24 Q. But just to clarify, you I believe at
25 your deposition explained that your understanding of

1 what you were looking to get at was that you are
2 looking at how many times in essence a consumer is
3 playing the CDD or PDD that they bought, on the one
4 hand, and comparing that with how many streams they
5 would have on a streaming service, correct?

6 A. I am not trying to get it on a
7 song-by-song basis, but a way to convert ownership
8 model to access model and what an appropriate
9 conversion is between the two based on consumption.

10 Q. Okay. And, in fact, can we pull up on
11 the second page the paragraph there? Yes.

12 So am I right that this is the paragraph,
13 really, within this press release that you are using
14 to guide you as to how this ratio is reached,
15 correct?

16 A. That's right.

17 JUDGE BARNETT: Are you offering 903?

18 MR. SEMEL: I am -- I believe it is
19 already in.

20 JUDGE BARNETT: Is it already in?

21 MR. SEMEL: Yes, it is already in
22 evidence.

23 JUDGE BARNETT: Thank you.

24 BY MR. SEMEL:

25 Q. And it mentions at the top a variety of

1 factors. And I just want to look at them.

2 When it says streaming and download
3 consumption patterns, is it your understanding --
4 you understand that there are different ways that
5 those terms could be interpreted, correct?

6 A. I suppose so.

7 Q. And did you do an analysis or an
8 evaluation of whether the different ways you might
9 interpret that might have different impacts on your
10 analysis in your report?

11 A. I considered how different conversion
12 factors, 150 versus 137 versus other numbers, I
13 considered how that would affect my results. I
14 don't think I did the comparison that you are asking
15 about.

16 Q. But, again, when it says comparative
17 consumption patterns, you don't know if it is
18 comparing, in fact, how many times people listen to
19 a CD or how many different CDs they listen to,
20 correct?

21 A. I don't have visibility into their
22 methodology, other than what's here.

23 Q. Right. Or, in fact, consumption, right,
24 am I right that in maybe a basic economic term, the
25 consumption of a CD would take place when it is

1 purchased, right? I mean that's when the economic
2 transaction takes place, whether you then listen to
3 it or not, you have consummated your transaction
4 when you purchased?

5 Am I correct that you don't know whether
6 that by consumption there, they are talking about
7 purchases or then utilization of the CD after it is
8 purchased?

9 A. Okay, I disagree with how you are
10 describing how an economist would view consumption.
11 So if I think of a flow of utility from my ownership
12 of a CD, that utility is going to come over time as
13 I access the CD.

14 I don't have visibility into the
15 methodology of what they are thinking of precisely
16 in terms of their download consumption patterns,
17 other than what's here.

18 Q. Okay. And then just to wrap it up, what
19 was your -- I assume you made an assumption as to
20 what they meant by streaming and download
21 consumption patterns, even though you didn't know, I
22 assume you concluded with some sort of an assumption
23 as to what it meant and what was that conclusion?

24 A. I concluded that this was a reasonable
25 conversion ratio to consider for evaluating one of

1 my benchmarks. It appears to be the industry
2 standard used by the RIAA. It is used by Billboard.
3 Apparently it is used by the publishers.

4 So it seemed a reasonable conversion
5 ratio to use. And, of course, I checked it with
6 sensitivity analyses, looking to the economics
7 literature. And it is one of multiple benchmarks,
8 it is consistent with the other benchmarks. So I
9 thought it was informative to use the 150-to-1
10 conversion.

11 JUDGE STRICKLER: It is an RIAA figure
12 and you just testified that you understood that the
13 publishers used it as well. What do you mean by
14 that?

15 THE WITNESS: I saw a document after I
16 completed my written direct testimony --

17 JUDGE STRICKLER: Let's wait on that for
18 a second. Is it anywhere in your supplemental
19 testimony or in your rebuttal testimony?

20 THE WITNESS: No, sir, not by me.

21 JUDGE STRICKLER: Do you know if -- do
22 you happen to know whether it is in the record?

23 THE WITNESS: No, sir.

24 MR. SEMEL: I can say it is actually not
25 in the record.

1 JUDGE STRICKLER: If you don't -- if it
2 is not in your testimony, let's not have you testify
3 to it.

4 BY MR. SEMEL:

5 Q. And in the 150 of the 150-to-1, do you
6 know what that 150 represents?

7 A. Other than what's here, I don't have any
8 additional interpretation.

9 Q. And your interpretation from this is that
10 the 150 represents what?

11 A. It says 150 on-demand streams.

12 Q. I understand. But streams of what?

13 A. Music.

14 Q. Do you understand that it also includes
15 video streams?

16 A. My thinking was that this was about
17 music, since they are using it for gold and platinum
18 albums and Billboard is using it to define the top
19 songs.

20 Q. But if you look a couple lines up you
21 will notice that it says it is, the album award
22 formula is 1500 on-demand audio and/or video song
23 streams.

24 And do you know what percent -- you don't
25 know, I guess, what percentage of the 150 would be

1 video streams as opposed to audio streams, correct?

2 A. Well, they are using 150-to-1 to convert
3 streams of songs to downloads of songs. And that's
4 how Billboard is using it. So it seems to be an
5 appropriate conversion factor for me to consider.

6 Q. And do you know the length of -- you
7 don't know the length of time of the stream that
8 counts for a stream to be part of the 150, correct?
9 It doesn't say it here --

10 A. I don't see any extra information on
11 that.

12 Q. As far as you know a nanosecond stream
13 counts towards the 150 in the 150-to-1, correct?

14 A. I would doubt that. I can't point you to
15 any text that defines it, but RIAA and Billboard are
16 using this conversion, and I think it would be
17 unlikely they would be comfortable with including
18 150 nanosecond streams as an equivalent of the
19 download.

20 Q. But that's entirely speculation on your
21 part, correct?

22 A. It doesn't really feel like speculation
23 to me. It seems like in a sensible assumption,
24 given how this conversion is being used in the
25 industry.

1 Q. Under the current regulations under
2 Section 115, do you know what counts as a stream?

3 A. My understanding is that the Services are
4 reporting streams of 30 seconds or longer to HFA.

5 Q. And do you know whether or not the
6 current regulations count a stream as a stream that
7 is only 30 seconds or more?

8 A. I am not sure what you are asking.

9 Q. I am asking whether you know if under the
10 current regulations of Section 115, whether the
11 definition of a stream includes a nanosecond stream?

12 A. I'm not sure I'm the right person to try
13 to interpret the legal document. My understanding
14 is that the Services when they report numbers of
15 streams to HFA, they are reporting streams of 30
16 seconds or longer.

17 Maybe I shouldn't speak for all the
18 Services. That's my understanding of what Spotify
19 is doing.

20 Q. And if it was the case that the current
21 regulations defined streams to include even
22 nanosecond streams, would that change your opinion
23 as to whether it is reasonable to assume that that
24 might also be included in this ratio by the RIAA?

25 A. I think it is unreasonable to assume that

1 the RIAA and Billboard are using conversion factor
2 that is based on nanosecond streams.

3 Q. And there is another factor here, which
4 is the historical impact on the program. Did you
5 make any assumptions as to what that meant?

6 A. Can you point me to exactly what you are
7 asking me?

8 Q. It is the second line, I'm sorry, I went
9 back. I am all in this paragraph.

10 "After a comprehensive analysis of a
11 variety of factors, including streaming and download
12 consumption patterns and historical impact on the
13 program," do you know or did you make any
14 assumptions for the purposes of your analysis as to
15 what "historical impact on the program" meant?

16 A. I don't think I made any particular
17 assumptions.

18 JUDGE STRICKLER: Do you know, did you
19 make any assumption of what the phrase "the program"
20 meant?

21 THE WITNESS: I assumed it meant their
22 awards program, but I am not sure it is particularly
23 important, given that I -- this appears to be --
24 this 150-to-1 appears to be the industry standard in
25 what is being used to do this conversion, but that's

1 trying to provide some explanation for the type of
2 analysis they did in developing it.

3 BY MR. SEMEL:

4 Q. And after the little break there, it also
5 talks about a consultation with a myriad of industry
6 colleagues. Did you have any -- did you make any
7 assumptions as to what the purpose of that was in
8 terms of analysis or what that meant in terms of
9 your analysis?

10 A. I don't think I made any particular
11 assumptions about it, other than what it says.

12 Q. And did you make any assumptions as to
13 how many they would have meant in a myriad?

14 A. No.

15 Q. Can we look at the bottom paragraph of
16 this page. Keep going. Keep going.

17 There you see the word myriad again,
18 actually, towards the bottom of that paragraph. It
19 says, "The RIAA uses a myriad of social media
20 platforms; Twitter, Facebook, Instagram, Flipagram,
21 and a YouTube page."

22 So from this would you maybe think that a
23 myriad might be five in the minds of the RIAA?

24 A. I didn't reach any conclusions about
25 their use of the language.

1 Q. And it didn't impact your analysis
2 whether or not this rate was potentially based in
3 part on consulting with five people in the industry?

4 A. I believe that in the context that I was
5 using this, that kind of thing is not something that
6 I think puts me in the position of questioning the
7 usefulness of this conversion ratio.

8 Q. And do you know who the members of the
9 RIAA are?

10 A. I don't know how their membership is
11 defined.

12 Q. But you understand them to generally be
13 record labels, correct?

14 A. Representatives of the recording music
15 industry. I presume that record labels are part of
16 that. I don't know if there are others as well.

17 Q. And did you do any evaluation of whether
18 members of the RIAA have an economic interest or
19 stake in what the conclusion rate is?

20 A. I wouldn't think there would be any
21 particular bias. They must have some artists who
22 sell primarily downloads and some artists that sell
23 primarily over streaming platforms, maybe based on
24 different demographics. So I don't see why they
25 would have any particular bias for favoring

1 downloads versus streams.

2 I would think they would have an
3 incentive to get it about right.

4 Q. And you don't know whether or not they
5 have -- did you not -- withdrawn. Sorry.

6 You didn't evaluate whether there are --
7 there is an economic interest on the labels in
8 whether or not artists get gold or platinum
9 certifications?

10 A. Again, I don't think this conversion
11 ratio would affect which -- might affect which
12 artists are identified as gold or platinum, but as
13 you change it, it is going to favor artists that
14 have most of their listening based on downloads
15 versus artists that have most of their listening
16 based on streams.

17 And I don't see a reason why they would
18 particularly want to favor one set of their members
19 over another. So I think their incentive would be
20 to get it about right.

21 Q. And you didn't evaluate whether or not
22 record labels have additional bonus or payment
23 obligations to their artists, depending on whether
24 they get gold or platinum certification?

25 A. I don't have a lot of visibility into the

1 publishers or the record labels' relationships with
2 their artists and music songwriter clients.

3 Q. But in an industry where consumption is
4 moving to streaming, a high conversion ratio would,
5 in fact, reduce the number of people who get gold
6 and platinum certification, correct?

7 A. Well, they increased it recently. So I
8 am not really sure what you are arguing.

9 Q. Indeed, an increase in the ratio raising
10 the number of streams that equal a download would
11 reduce the number of people who are achieving gold
12 and platinum certification, correct?

13 JUDGE STRICKLER: If streaming is
14 increasing relative to downloads?

15 MR. SEMEL: Absolutely. Absolutely.

16 THE WITNESS: And I think that's right.

17 BY MR. SEMEL:

18 Q. And, therefore, if record labels have
19 additional bonuses and payments tied to those
20 certifications, they have an economic interest in
21 the conversion rate being higher, correct?

22 A. I guess the record labels might be able
23 to avoid payments if what you say is right, that the
24 payments tied to this gold and platinum status, and
25 if they are able to manipulate the number of artists

1 that receive that gold and platinum status.

2 Q. And if we look at --

3 A. I don't know that the RIAA has a similar
4 incentive.

5 Q. But to clarify, these weren't things that
6 went into your analysis, correct?

7 A. I'm sorry, what are the things that you
8 are asking?

9 Q. The things we're talking about were not
10 considerations that you looked into in your
11 analysis, correct?

12 A. I was focused on it being an industry
13 standard used by the RIAA, used by Billboard, and
14 consistent with the other benchmarks that I
15 considered and consistent with the economics
16 literature.

17 Q. And --

18 JUDGE STRICKLER: Excuse me, when you say
19 "consistent with the economic literature," I know
20 you have mentioned the Aguiar and Waldfogel article.
21 Is that the economic literature you are talking
22 about?

23 THE WITNESS: That's the only one I know
24 of that speaks to this.

25 JUDGE STRICKLER: Thank you.

1 BY MR. SEMEL:

2 Q. If we look at the very end of that
3 highlighted paragraph at the top, it notes that the
4 analysis and the determination of a formula is based
5 on comparative consumption patterns, not marketplace
6 value, correct?

7 A. That's what it says.

8 Q. And you understood that this is -- this
9 formula has nothing to do with the value of streams,
10 correct?

11 A. I took it to be based on comparative
12 consumption patterns, like they say.

13 Q. But comparative consumption patterns, not
14 marketplace value?

15 A. Right. I read those words. I understand
16 that that's what they meant the formula to reflect.

17 Q. And in the middle of that paragraph, you
18 see a sentence that says "also effective today,
19 RIAA's digital single award ratio will be updated
20 from 100 on-demand streams equals one download to
21 150 on-demand streams equals one download to reflect
22 the enormous growth of streaming consumption in the
23 two plus years since that ratio was set."

24 Do you understand the economic rationale
25 for increasing the ratio as people stream more?

1 A. I thought they were trying to get the
2 conversion right and reflect comparative consumption
3 patterns and that those consumption patterns were
4 evolving over time.

5 JUDGE STRICKLER: Wouldn't the ratio go
6 in the other direction if there is a growth of
7 streaming consumption on the basic economic
8 analysis?

9 THE WITNESS: They seem to be devaluing
10 an individual stream relative to a download.

11 JUDGE STRICKLER: Does that make sense to
12 you from an economic point of view, given they are
13 saying, given what they are claiming to be enormous
14 growth of streaming?

15 THE WITNESS: If they -- yeah, I think it
16 could make sense because they are thinking about
17 streaming is becoming easier and better features,
18 less expensive, better wireless Internet, available
19 on more devices, and so the significance of an
20 individual stream relative to the significance of
21 digital download is, is reduced.

22 JUDGE STRICKLER: Wouldn't that be a
23 reduction in marketplace value per stream rather
24 than a reduction in consumption patterns?

25 THE WITNESS: The marketplace value would

1 also depend on how much the people subscribing to
2 the subscription services were paying for the
3 service.

4 JUDGE STRICKLER: And that's not
5 referenced here?

6 THE WITNESS: I think it could be
7 different, yeah.

8 JUDGE STRICKLER: Counsel?

9 MR. SEMEL: Thank you.

10 BY MR. SEMEL:

11 Q. You have referenced now a couple of times
12 the Aguiar and Waldfogel paper. And if we could
13 bring up Exhibit 909. This is the paper you are
14 talking about, correct? You can look at it in your
15 book. You should have a paper copy if you don't
16 want to rely it on the screen.

17 A. I haven't seen it with that particular
18 cover page.

19 Q. Do you want to take a look at it to --

20 A. Go ahead.

21 Q. And this is a working paper, correct,
22 that was not published in a peer-reviewed journal,
23 correct?

24 A. That's correct.

25 Q. And you, I think you testified in your

1 deposition, you do not have the ability to agree or
2 disagree with the particular numbers in this paper,
3 correct?

4 A. That's right. I didn't have the
5 underlying data.

6 Q. And you are not vouching for the accuracy
7 of the results of the study, correct?

8 A. That's correct.

9 Q. You do not replicate the study, correct?

10 A. That's correct.

11 Q. And you did no empirical investigation,
12 you just read the paper, correct?

13 A. That's right.

14 Q. Although the paper involves a review of
15 Spotify's streaming data in large part, did you
16 discuss with Spotify getting access to their data to
17 replicate the study?

18 A. My understanding is this was publicly
19 available Spotify data, so I am not exactly sure
20 what caused this particular set of data to be
21 publicly available.

22 Q. Well, did you note, do you recall the
23 authors noting that their data fell short of the
24 ideal in part because they didn't have access to
25 more streaming data from Spotify?

1 A. I recall something like that, yes.

2 Q. And did you talk with Spotify about maybe
3 getting the missing data and doing an analysis that
4 was more detailed?

5 A. No, I didn't pursue that analysis.

6 Q. Now, you mentioned in connection with
7 this article a ratio, conversion ratio of 137-to-1.
8 Correct?

9 A. That's correct.

10 Q. But there is, in fact, more than one
11 conversion ratio that they discuss in this paper,
12 correct?

13 A. Yes, that's correct.

14 Q. And, in fact, they found another
15 conversion ratio of 43-to-1, correct?

16 A. I don't remember the number. Perhaps you
17 are talking about the CD conversion? I am not sure
18 which number you are referring to.

19 Q. I think you will find it on page -- I
20 think it is going to be on page 15 or 21. On 21,
21 I'm sorry, on page 21, if you look in the top -- I
22 mean, obviously this is a long academic paper, so
23 we're going to be jumping into the middle of a
24 paragraph.

25 But in the middle of that top paragraph

1 you will see it discusses some coefficients and then
2 a result that it takes 43 Spotify spins to reduce
3 digital track sales by one. And I think if you look
4 on the page before, this is referred to, maybe this
5 refreshes your recollection, it is referred to by
6 them as their matched aggregate sales analysis.

7 Do you recall this?

8 A. I would need to read through this again
9 carefully. The analysis that's depicted in table 37
10 on page 37 is the one with the 137, is the number
11 they point to as the displacement of PDDs for
12 streams, so that was what I focused on.

13 Q. Right. But, in fact, they do two
14 analyses?

15 A. They do a number of analyses. They look
16 at piracy. They look at a number of things.

17 Q. Right. But as they note on page 20 at
18 the beginning of their aggregate results, that they
19 have two aggregative approaches. And one of them is
20 this matched aggregate sales number which leads to
21 43-to-1, and a second approach, this is again on
22 page 20 under the heading 5.2, "a second approach is
23 to link overall sales and piracy, aggregating across
24 all songs, not just those we can match in Spotify,
25 with our index of Spotify streaming, the sum of the

1 streams of the top 50 songs by country week."

2 And isn't it correct that that second
3 approach is the one that leads to 137-to-1?

4 A. I'm sorry, I would have to take a moment
5 and really reread this because it is the 170 --
6 sorry, 137 number that the authors highlight in the
7 abstract and throughout the paper, I think in their
8 conclusion as well. And that was what I focused on.

9 They do a number of analyses. But I
10 don't have the particular one that you are talking
11 about loaded up in my head.

12 Q. Okay. You did notice Table 7, you noted,
13 which is on page 37, as being the table that
14 represents what you were talking about, which led to
15 the 137-to-1, and you will note that that has as the
16 number of observations, 86, which is about part way
17 through the page.

18 Do you see that?

19 A. I see that.

20 Q. And, in fact, again, you may not have it
21 in your mind but Table 5 on the page two pages
22 before also is, again, you will see a similar title,
23 which is the other survey, rather, I should say, the
24 first one they did that led to 43-to-1 and you will
25 notice it has significantly more observations,

1 correct? In fact, 719 observations for a number of
2 its -- I am not going to get into how to describe
3 the different columns in the chart.

4 A. Regression specifications.

5 Q. But, in any event, there were a larger
6 number of observations in the first aggregate number
7 that they used that led to 43-to-1?

8 A. Again, I just don't have that analysis
9 fresh in my mind. I'd have to sit down and reread
10 that part to talk about it. Sorry about that.

11 Q. And do you recall in the 137-to-1 what
12 was being -- how they were comparing the CD and like
13 what date -- I'm sorry, withdrawn.

14 Do you recall for the 137-to-1, what data
15 sets they were using to get their 1 and what data
16 sets they were using to get their 137?

17 A. My recollection, and I guess we can dig
18 into this, is that they had data on streams and PDD
19 sales from 2013 to 2015 for a particular set of
20 songs. My recollection is it was the top 50 songs
21 on Spotify.

22 And they ran the regressions that are
23 specified in Table 7. And they are looking at the
24 coefficient on streams. Digital tracks regressed on
25 streams and looking at that coefficient on streams.

1 Q. Right. And in connecting the top 50
2 songs and the top purchases and the top -- sorry,
3 the top 50 downloads and the top 50 streams, those
4 were not necessarily the same 50, correct? When I
5 say they were not necessarily the same 50, I mean
6 they were not necessarily the same 50 songs,
7 correct?

8 A. I'd have to go back and look at their
9 data. It may have been the same 50 songs. I am not
10 sure.

11 Q. And, in fact, what we referred to earlier
12 as the matched aggregate approach, which is what led
13 to the 43-to-1, by matched there, that's what they
14 meant by actually matching the songs to the right
15 song, comparing the same song for CDs or PDDs and
16 the same song for streams, correct?

17 A. It could be. I'm sorry, I just don't
18 have that other analysis in my head.

19 Q. Do you recall whether you considered this
20 in your analysis in your report?

21 A. Yes. I read this whole paper and the --
22 and thought about it. And Aguiar and Waldfogel come
23 back to the measure they are putting forward as a
24 result of this analysis, a conversion of 137-to-1.
25 And that's what I used for my sensitivity analysis.

1 Q. And when you say "sensitivity analysis,"
2 I am correct you are distinguishing that from the
3 RIAA ratio which was your primary, shall we call it,
4 benchmark, correct?

5 A. Conversion factor that I used for the
6 tables that are in my written direct testimony use
7 that 150-to-1, but I also performed the calculations
8 with the 137-to-1. And they point in the same
9 direction of benchmark royalty rates being lower
10 than current levels.

11 Q. And you understand the Aguiar/Waldfogel
12 paper to be -- withdrawn.

13 The 137-to-1 in the Aguiar/Waldfogel
14 paper, what do you understand that to be a ratio of?

15 A. The authors describe it as 137 Spotify
16 streams appear to reduce track sales by one unit.

17 Q. So you understand it as, in essence, a
18 displacement or a substitution analysis, correct?

19 A. Yes, and consumption-based. They are
20 counting units, not dollars.

21 JUDGE STRICKLER: Were you just reading
22 from it?

23 THE WITNESS: I was reading from the
24 abstract of the paper.

25 BY MR. SEMEL:

1 Q. And I am going to get to where you just
2 read from, so I make sure I'm on the same page. And
3 when it says track sales there, you understand that
4 to mean digital tracks, correct?

5 A. Yes, I do.

6 Q. And you understand that this does not
7 include displacement of digital albums, correct?

8 A. My recollection is that it is just
9 individual tracks, individual songs, not albums, but
10 I'm not completely sure I'm remembering that right,
11 but that's my recollection.

12 Q. Right. So that the 137 streams displaces
13 one digital download, but may also be displacing
14 digital albums and that's not captured in the
15 137-to-1, correct?

16 A. My recollection is that it is just based
17 on individual downloads, but I'm not completely sure
18 of that.

19 Q. And if I could turn your attention to 22,
20 page 22 of the report, this might refresh your
21 recollection. If you look at the very last part of
22 the paragraph before the section 6 begins, it notes
23 that "the coefficients for digital track sales are
24 generally higher than the coefficients for albums,
25 but many of the album coefficients are also negative

1 and significant. Our best estimate indicates that
2 an additional 137 streams displaces one track sale."

3 So you see there, they are making a
4 difference between track sales and albums, but they
5 are only noting their 137 streams is displacing a
6 track sale, correct?

7 A. Okay. This is the sentence I was looking
8 for before. That's their best estimate is the 137
9 streams displacing one track. And then in my
10 analysis I break an album into its multiple tracks,
11 and then apply the 137 per track.

12 My recollection is they run separate
13 regressions, they have a CD regression and a
14 separate digital download regression. So they don't
15 have a single regression that tries to take into
16 account simultaneously these substitute products.

17 Q. Correct, right. So this is measuring a
18 displacement of one track sale, it is not measuring
19 the displacement of all the other products that
20 might be bought, including CDs or albums?

21 A. Is that a question?

22 JUDGE BARNETT: Was that a question?

23 MR. SEMEL: Yes, I'm sorry.

24 BY MR. SEMEL:

25 Q. I said -- yes. I can rephrase it.

1 So I just want -- I am trying to wrap
2 this up to make sure we're on the same page. The
3 137-to-1 is in your understanding a measurement of
4 how many digital track downloads are displaced and
5 does not take into account how many CDs are
6 displaced or how many digital albums are displaced?

7 A. I'm working from the results in this
8 paper. Their best estimate indicates that an
9 additional 137 streams displaces one track sale. So
10 I think that conversion ratio is one worth
11 considering. And I think it is informative.

12 My understanding is that they have done
13 separate regressions, so it is not that it doesn't
14 -- I'm not sure you can conclude from what they have
15 done that that 137 is somehow deficient as a
16 conversion ratio because they have done analyses
17 separate for CDs versus digital downloads of
18 singles.

19 Q. Okay. And that same uncertainty holds
20 for the 43-to-1 ratio that they concluded in their
21 aggregate matched study, correct?

22 A. I'm sorry, I just don't recall what
23 underlies that other analysis. I do recall they
24 come back to the 137 as the estimate they are
25 putting forward as a result of the research overall.

1 I am just not in a good position to answer questions
2 about the other one.

3 Q. If we can move on to page 44 of your
4 direct report, you discuss this also a little bit in
5 your direct examination, that the analysis you did
6 involving utilizing the retail prices of digital and
7 physical singles and comparing them with the Subpart
8 A mechanical royalty, that that's put in your figure
9 23, correct?

10 A. I think I lost track. It was a long
11 sentence.

12 Q. Yes, you are right. It is my fault.

13 A. I think it was correct.

14 Q. Okay. Apologies for the run-on sentence.

15 The Subpart A royalty rate is a fixed
16 fee, correct, penny rate?

17 A. I am not sure what you mean by a penny
18 rate.

19 Q. How about I just go with fixed fee.

20 A. Lovely.

21 Q. And for -- under Subpart A, the label is
22 the licensee of the musical work in those
23 situations, correct?

24 A. My understanding is that the payment, the
25 total payment goes to the record label, and that

1 they pay 9.1 cents for streams under five minutes to
2 the publisher.

3 Q. And with a penny rate, the label pays the
4 same amount in mechanical royalties regardless of
5 what they ultimately sell their sound recording for,
6 correct?

7 A. I think that's right.

8 Q. Some are more successful than others,
9 correct?

10 A. Presumably.

11 Q. And some sell tracks for \$1.29, have you
12 heard of that price point?

13 A. I have heard of that.

14 Q. And the 99 cent price point?

15 A. I have heard of that.

16 Q. And the 69 cent price point?

17 A. I don't have any experience with that
18 one.

19 Q. Okay. And are you familiar with
20 eMusic.com?

21 A. No.

22 Q. At price points at 49 cents?

23 A. Don't know about that one.

24 Q. But, in any event, assuming all those
25 price points are, in fact, price points in the

1 marketplace, under the statutory rate of Subpart A,
2 the 9.1 cents is being paid or as you calculated it
3 the 9.5 cents on average is being paid regardless of
4 what the label makes off of the sale of the track,
5 correct?

6 A. That's my understanding. It was 9.6
7 cents, I think, and I think you said 9.5.

8 Q. And you utilize for this comparison, you
9 start with a per -- you start with a retail
10 per-track price, you use \$1.10 for digital tracks,
11 but that's not the amount of money that the label
12 itself receives, correct?

13 A. I don't have documents to point you to on
14 the details of that. I think you are asking me
15 about the transaction between the service that is
16 facilitating the download and the payment to the
17 labels. I am not sure I can answer that.

18 Q. Yeah. As part of your analysis, did you
19 look into what the actual amount of money that was
20 received by the licensee under Subpart A is, as
21 opposed to the retail price of the track?

22 A. I used the retail price.

23 JUDGE STRICKLER: Why wouldn't it be
24 better to use the net price that's actually received
25 by the record company, say for argument's sake,

1 there is a download on the Apple iTunes store and
2 the label keeps 70 percent of it as opposed to 100
3 percent. Why wouldn't it be better to use
4 70 percent of \$1.29 or whatever the download price
5 is?

6 THE WITNESS: Because I want to use it as
7 a benchmark relative to total revenue. So something
8 that is going to be comparable to the \$9.99 that
9 gets paid for a subscription streaming service, so
10 what percentage of the amount that the consumer pays
11 is going to musical works rightsholders.

12 JUDGE STRICKLER: Does it matter that
13 under Subpart B that some costs associated with
14 goods sold are deducted from the revenue base? And
15 if you pardon the expression to make an
16 apples-to-apples comparison, that you would need to
17 look at the amount that Apple would take as, in my
18 example, as a cost of doing business for the record
19 companies?

20 THE WITNESS: I'm trying to look at
21 something that is going to be a good benchmark for
22 -- let me think about what I am going to compare it
23 to.

24 So I am going to compare this to the
25 musical works royalty that Spotify pays as a

1 percentage of the revenue that it gets.

2 JUDGE STRICKLER: And that is a defined
3 regulatory phrase, revenue, the revenue base?

4 THE WITNESS: I assume it is defined in
5 the regulations. I am thinking of it as the -- when
6 I look at their financials, I see the revenue that
7 they have. And so I want to look at the -- and
8 that's revenue coming from the retail sales of their
9 subscription service.

10 So what I am going to compare this to is
11 musical works royalties as a percentage of the
12 retail sales. And I am using for the denominator
13 for CDs and DVDs the retail sales amounts as given
14 to me by the RIAA. That seems to me the right
15 comparison.

16 JUDGE STRICKLER: Thank you.

17 BY MR. SEMEL:

18 Q. But, again, under Subpart A, the licensee
19 is going to pay the same amount to the musical works
20 owner regardless of what amount of revenues they are
21 able to sell their product for, correct?

22 A. That's my understanding.

23 Q. I'd like to turn to a passage in your
24 written direct report on page 40. It is paragraph
25 98. You write that "setting royalties as a

1 percentage of revenue has a potential downside, if
2 interactive streaming revenue is difficult to
3 separate from other forms of revenue. In that case,
4 basing royalties on the number of subscribers or
5 streams might serve the purpose of defining royalty
6 payments more clearly."

7 Do you see that?

8 A. I do see that.

9 Q. And you have noted that there are, in
10 fact, concerns with the transparency of revenue with
11 at least some of the Services currently in the
12 interactive streaming market, correct?

13 A. That's correct.

14 Q. And that would include at least Apple,
15 Google, and Amazon in your mind, correct?

16 A. Yes.

17 Q. And iHeart media as well, correct?

18 A. I suppose so. I haven't spent a lot of
19 time thinking about them in this matter.

20 Q. So now I believe when we did this in your
21 deposition, we went with the term "diversified
22 companies" to represent these types of companies
23 that are what we might call non-pure play. So how
24 about we stick with that term?

25 A. That works for me.

1 Q. So with diversified companies, you can
2 have problems capturing all of the value
3 attributable to music, correct?

4 A. You can have trouble if you rely on a
5 percentage of revenue royalty with no back-stop.

6 Q. Right.

7 A. If you have a back-stop in place, that
8 ameliorates that.

9 (Whereupon, the hearing proceeded in a
10 confidential session -- Pages 1962 line 9 through
11 1963 line 14.)

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13 (Whereupon, the hearing resumed in
14 open session.)

15 JUDGE STRICKLER: So the percentage of
16 revenue rate is economically in the nature of an ad
17 valorem tax, right?

18 THE WITNESS: That's correct.

19 JUDGE STRICKLER: So the way you are
20 describing it is sort of like an alternative minimum
21 tax, isn't it, with base?

22 THE WITNESS: Yes, it is.

23 JUDGE STRICKLER: Thank you.

24 BY MR. SEMEL:

25 Q. And, in fact, you opined about this issue

1 in the Pandora/ASCAP proceeding that we were
2 discussing earlier, correct?

3 A. Yes.

4 (Whereupon, the hearing proceeded in
5 a confidential session -- Page 1964 line 4 through
6 20.)

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19 (Whereupon, the hearing resumed in
20 open session.)

21 Q. And in your analysis you contrast these
22 sorts of diversified companies with what you call
23 pure plays, correct?

24 A. That's correct.

25 Q. And by "pure plays," you mean companies

1 where all of the revenue is related to music,
2 correct?

3 A. Roughly, yes.

4 Q. And what makes them different is that you
5 believe that avoids the measurement problem because
6 all of the companies' revenues are included in the
7 revenue base, correct?

8 A. It goes a long way towards avoiding the
9 measurement problem, yes.

10 Q. That's right. And for pure-play
11 services, it is your understanding that the
12 definition of the revenue base for royalties
13 includes the total revenues of that entity, correct?

14 A. Generally speaking, yes.

15 Q. So even if a pure play is selling
16 something that relates to live performances or
17 something like that, to say it is a pure play, that
18 means that all of its revenues are included in the
19 revenue base for calculating royalties, correct?

20 A. Generally speaking, yes. I suppose there
21 might be some peripheral revenue, but that the focus
22 of the profit maximizing activity of the service is
23 to maximize its profit from its subscription and
24 ad-supported streaming services.

25 (Whereupon, the hearing proceeded in a

1 confidential session -- Pages 1965 line 25 through
2 1972 line 17.)
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16 (Whereupon, the hearing resumed in an
17 open session.)

18 MS. MAZZELLO: I think we have been in
19 open session for some of this discussion of Apple's
20 license agreements. So if we're going to continue
21 could we go to restricted? And also we might have
22 to back-mark this as a restricted session, actually.

23 JUDGE BARNETT: I wondered. We were into
24 quite a bit of detail for the last few minutes.

25 MR. SEMEL: I am trying to think at what

1 point. I guess terms came out of --

2 THE WITNESS: As an economist, I don't
3 have a good understanding.

4 MR. SEMEL: No. Was it the terms from
5 the discussion of the Pandora/ASCAP case?

6 MS. MAZZELLO: Yeah, when we went into
7 that. And then I think if we search the transcript
8 for Apple, I think it is the first time you
9 mentioned it.

10 JUDGE BARNETT: That might be a bit too
11 broad. But I will give you the opportunity to
12 review the transcript, and if you can't agree on
13 where the restricted material first appeared, give
14 it to us to decide. Are we going to continue with
15 restricted material?

16 MR. SEMEL: I'm sure we will. I am not
17 thinking of this as restricted material. So I have
18 a question in my mind, and I don't think it is
19 restricted.

20 BY MR. SEMEL:

21 Q. In the Pandora/ASCAP case, you also
22 discussed a concern that there was Apple displacing
23 revenues into hardware sales as well, correct?
24 That's not really a license term, is it?

25 MS. MAZZELLO: I would have to see what

1 the record said for ASCAP. I am worried this may
2 all have been restricted in the ASCAP decision.

3 JUDGE BARNETT: If there is anyone in the
4 courtroom currently -- are you going to change your
5 tack or go ahead?

6 MR. SEMEL: Let -- let me change my tack,
7 I will try and move things along.

8 JUDGE BARNETT: Okay.

9 BY MR. SEMEL:

10 Q. But just to get back to defining the
11 revenue base, you did discuss in -- and this is not
12 restricted -- in the Pandora/ASCAP case the idea
13 there were two ways you can go about something, in
14 the case where you have a measurement issue. And
15 one is by, as you were discussing with Judge
16 Strickler, raising the rate to sort of make up for
17 it, and the other one is defining the revenue base
18 properly to include everything.

19 And I believe you noted the second one,
20 which I think we have been getting at here, that
21 that's just very, very hard to do. Is that an
22 accurate description?

23 A. I think so. I think it wasn't viewed as
24 practical.

25 JUDGE STRICKLER: Which wasn't practical?

1 THE WITNESS: That it wasn't viewed as --
2 it wasn't viewed as being a practical way to
3 redefine revenue to figure out what the appropriate
4 revenue definition was. The approach that seemed to
5 be taken in practice looked like the percentage was
6 adjusted.

7 BY MR. SEMEL:

8 Q. Right. And you may recall we discussed
9 in your deposition the discussion of defining the
10 revenue base properly. And tell me if this sounds
11 like what you remember.

12 You used, you noted that while in theory,
13 you could do it, in practice, doing so would require
14 having formulas that are specific to each business
15 model, to each individual service provider, and
16 those formulas would need to change with every
17 change in the service business model. And so
18 practically speaking, there would be significant
19 challenges to that?

20 MR. ASSMUS: Objection, Your Honor. I
21 can't tell if Mr. Semel is trying to impeach the
22 witness. I prefer that he ask the question and get
23 an answer and impeach her with the transcript if it
24 is different.

25 JUDGE BARNETT: Sustained. I didn't hear

1 any conflict between what you just read from the
2 deposition transcript and what she testified a few
3 minutes ago.

4 MR. SEMEL: In fact, I was trying to
5 clarify because I felt like my questions weren't
6 quite getting to that.

7 JUDGE BARNETT: I think they were clear.
8 You don't need to read the transcript.

9 MR. SEMEL: Okay.

10 BY MR. SEMEL:

11 Q. Okay. So you have opined that in your
12 report that back-stops should be set at a level that
13 mimics an appropriate percentage-of-royalty amount
14 for market conditions; is that correct?

15 A. Yes, and perhaps needs to be added for --
16 for -- I am thinking that you would want to use a
17 pure-play service as one way to assess that you have
18 set the back-stops at the appropriate level.

19 Q. But if a non-pure-play service was
20 bringing in significantly more revenues than a
21 pure-play service would, are you saying you would
22 apply the pure-play back-stop to the diversified
23 service as well?

24 A. The concern here is that the diversified
25 service is going to price its interactive streaming

1 service too low, and so not monetizing that service
2 in the way it would, if that were its own profit
3 center.

4 And that kind of using music, pricing at
5 a lower price to increase the number of subscribers
6 because that generates value for you elsewhere in
7 the business, that kind of thing will be handled
8 well by a per-subscriber fee that is set at the
9 level guided by a pure-play streaming service.

10 JUDGE STRICKLER: But that doesn't --
11 maybe it all circles back because it doesn't seem to
12 get to counsel's question, which is if the
13 diversified company is able to bring in more
14 revenues, you wouldn't want to use the revenue
15 percentage of a pure play as a proxy? And I say it
16 also sort of becomes a circular problem because how
17 do you know if the diversified service is bringing
18 in more revenue? That's the whole reason you went
19 to the back-stop in the first place.

20 So I don't know is there any way to get
21 out of that box?

22 THE WITNESS: Yeah, I mean, I think of,
23 if you have a diversified service that is bringing
24 in significantly more revenue than a pure-play
25 streaming service that is at scale, then it is

1 likely that additional revenue is the relative
2 contribution of that diversified firm.

3 If they are bringing in more revenue
4 because of the complementary products, then those
5 are their complementary products that are generating
6 the incremental revenue. I think the concern for
7 getting proper royalties paid to the copyright
8 owners is that they are not underpricing the
9 subscription streaming service relative to what they
10 would have if they were viewing that as a standalone
11 business.

12 JUDGE STRICKLER: Counsel?

13 BY MR. SEMEL:

14 Q. But, in fact, aren't the revenues of the
15 pure plays influenced by the pricing of the
16 diversified companies as well?

17 A. I think of them as competing with one
18 another, yes. Current economic conditions matter.

19 Q. Right. And so if the diversified
20 services are putting downward pressure on prices,
21 then it is going to be reflected in lower revenues
22 to the pure plays, correct?

23 A. Again, I think the current economic
24 conditions are going to matter for the level of
25 pricing. In this industry, we haven't really seen

1 much deviation from the standard \$9.99 per month
2 subscriber fee, so it doesn't seem like that
3 underpricing below 99 is the dominant factor in this
4 industry.

5 Q. And you are not aware of recent changes
6 -- recent downward price competition in the market?

7 A. Most of the Services seem to be still at
8 \$9.99 per month.

9 JUDGE STRICKLER: You haven't seen in the
10 marketplace, you haven't observed recent discounting
11 or bundling family plans, student plans or the like
12 to move that number down?

13 THE WITNESS: Oh, sure, yes. I didn't
14 mean to -- there are other pricing packages
15 available that are attractive to
16 lower-willingness-to-pay consumers. There are
17 discounts for students. There are family plans.
18 There is ad-supported. So there are these other
19 options.

20 But the Premium tier --

21 (Whereupon, the hearing proceeded in a
22 confidential session -- Pages 1979 line 21 through
23 1980 line 6.

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5 (Whereupon, the hearing resumed in
6 open session.)

7 JUDGE STRICKLER: Did you examine whether
8 there was a discount, increasing discounting of
9 rates for different plans from other Services,
10 diversified services such as Amazon, Apple, and
11 Google?

12 MR. ASSMUS: Judge Strickler, some of
13 your questions may venture into restricted answers.
14 I just wanted to, if we continue down that --

15 JUDGE STRICKLER: Maybe you are right. I
16 don't want to. I was asking about whether there has
17 been an increase in retail discounts, since retail
18 prices are publicly known, do you think -- do you
19 still think that is a problem?

20 MR. ASSMUS: I don't think that very one
21 will be, but I just wanted to sensitize the panel to
22 that.

23 JUDGE STRICKLER: Thank you.

24 THE WITNESS: I don't think I have -- I
25 don't think I have seen anything -- I am not sure

1 that I have looked hard enough for you to make much
2 of that answer, but I haven't seen it. But maybe it
3 is there, and I just haven't seen it.

4 JUDGE STRICKLER: Thank you.

5 BY MR. SEMEL:

6 Q. You know, I think now I would be moving
7 into a restricted area. I was hoping to finish
8 today, but it is not going to happen. I don't know
9 if now would be a good time to break or if you want
10 to try to fit it in.

11 JUDGE BARNETT: How much more do you
12 have?

13 MR. SEMEL: Probably at least a half an
14 hour to an hour.

15 JUDGE BARNETT: Any other day I would say
16 we will just gut it out, but I have an appointment
17 outside the building that I have to make and I'm not
18 going to be able to stay late today.

19 MR. SEMEL: Understood.

20 JUDGE BARNETT: Is the witness available
21 tomorrow?

22 THE WITNESS: I wasn't planning to be
23 available. Would you like me to explain why or --

24 JUDGE BARNETT: I will let you discuss
25 that with counsel and we will work around whatever

1 comes. At this point we will be at recess until
2 9:00 o'clock in the morning.

3 JUDGE STRICKLER: Assuming either this
4 witness is done tomorrow or can't appear tomorrow,
5 who do we have next?

6 MR. ASSMUS: If I can just quickly
7 address the scheduling issue, I will discuss it with
8 Mr. Semel, Dr. Marx is scheduled to come back during
9 the rebuttal phase. That would be one option for
10 her to make her flight tonight.

11 Assuming she is not coming back tomorrow
12 morning, the next witness would be Spotify CFO Barry
13 McCarthy.

14 JUDGE STRICKLER: Mr. Lucchese after
15 that?

16 MR. ASSMUS: Lucchese, correct.

17 MR. ELKIN: We were going to try to fit
18 in Dr. Hubbard, who as the panel knows testified
19 toward his credentials on Friday, he is going to be
20 back from New York to testify tomorrow at some
21 point.

22 JUDGE STRICKLER: Is the thought he would
23 come in before Mr. McCarthy or after Mr. Lucchese?

24 MR. ELKIN: That was a subject for us and
25 counsel for Spotify. We were hoping he would

1 certainly testify certainly right after Mr.
2 McCarthy.

3 JUDGE STRICKLER: But before Mr.
4 Lucchese?

5 MR. ELKIN: Before Mr. Lucchese, yes.

6 MR. ASSMUS: Yes, and that remains the
7 subject of internal discussion among the Services in
8 terms of accommodating the various schedules.

9 JUDGE BARNETT: Let us all bear in mind
10 that we will have two days off in April, that we
11 will complete this hearing on the 13th of April.
12 The time is split 50/50. Make it work. We're at
13 recess then.

14 (Whereupon, the hearing recessed at 5:00 p.m.,
15 to resume on March 21, 2017 at 9:00 a.m.)

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1	C O N T E N T S				
2	WITNESS	DIRECT	CROSS	REDIRECT	RE CROSS
3	WILL PAGE				
4		1661	1721	1805	
5	LESLIE MARX				
6		1818	1910		
7					
8	AFTERNOON SESSION: 1818				
9	CONFIDENTIAL SESSIONS:				
10	1703-1750, 1847-1889, 1904-1909, 1901:7-1902:20,				
11	1962:9-1963:14, 1964:4-1964:20, 1965:25-1972:17, and				
12	1979:21-1980:06				
13	E X H I B I T S				
14	EXHIBIT NO:	MARKED/RECEIVED			
15	PANDORA				
16	903		1824		
17	909		1824		
18	998		1809		
19	APPLE				
20	1514		1809		
21	1566		1824		
22	AMAZON				
23	7		1823		
24	65		1809		
25	82		1809		

		MARKED/RECEIVED
1	AMAZON	
2	215	1809
3	218	1809
4	220	1668
5	221	1823
6	COPYRIGHT OWNERS	
7	2658	1810
8	2686	1810
9	2699	1824
10	2742	1810
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13	SPOTIFY	
14	985	1809
15	986	1809
16	987	1809
17	989	1809
18	990	1809
19	992	1809
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25	1004	1823

	SPOTIFY	MARKED/RECEIVED
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2	1020	1809
3	1021	1809
4	1024	1809
5	1025	1707
6	1026	1707
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I certify that the foregoing is a true and accurate transcript, to the best of my skill and ability, from my stenographic notes of this proceeding.

3/21/17



Date Signature of the Court Reporter

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